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MACMILLAN
ACCOUNTING FOR VCE

MACMILLAN ACCOUNTING FOR VCE 3+4 UNITS

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UNIT 4

INTRODUCTION

Macmillan Accounting for VCE Units 3 & 4 is your introduction to the concepts of double entry accounting as applied to small business. This textbook deals with all areas of study, outcomes, key knowledge and key skills for Units 3 & 4 of the VCE Accounting Study Design 2019 2023.

Key features

Your textbook contains a number of important features that are designed to support your learning and prepare you for your assessments.

- Every chapter starts with a list of learning objectives, so that you understand the topics you're about to study. The unit progress bar and chapter outline help you track how far you've progressed in the course.
- Key terms are highlighted in the text, with definitions in the margin nearby.
- The margins also contain study tips, pointing out the do's and don'ts of exam success. Keep these tips in mind when it's time to revise for your exams.
- At the end of each numbered section of a chapter is a short set of Check Your Understanding questions, which focus on the major concepts introduced in that section. These include icons to the corresponding page of the student workbook.
- Every chapter ends with a review of its key information and a series of practical exam style exercises. These can be completed in the student workbook; use the icon to find the correct workbook page.
- The final page of each chapter is a checklist of the chapter's core concepts and tasks.
- Many chapters also include case studies, ethical considerations for discussion, or research activities about accounting in the real world.

EXAM SUCCESS
If accounts payable turnover increases, you may be asked to state one positive and one negative in relation to this change. Revise answers for both possibilities.

DON'T!
When recording a sales return, do not debit the sales account. Make sure that you use the sales returns account.

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Online support

- Use the code on the inside front cover of your textbook to access the digital version of the text.
- Your online resources also include additional support materials.
- Short, interactive review quizzes are provided for each chapter, to help you revise key concepts.
- The spreadsheet icon in the margin shows when a blank Microsoft Excel template is available for use with practical exercises.
- The QR code and weblink located at the end of each chapter link to a Mr Box on Demand video. These short tutorial videos featuring the textbook author will help you achieve maximum success in your studies.

SPREADSHEET

ABOUT THE AUTHOR

Neville Box

Neville Box is an experienced and highly esteemed educator who has been teaching VCE Accounting since 1981. He has been involved in the development of Accounting Study Designs since 2008, including the new Study Design to be implemented in 2019. His depth and breadth of knowledge, combined with his accessible presentation style, makes him a sought after presenter for teaching professional development events. Neville currently teaches at St Bernard's College in Essendon.

From the author

Publishing a VCE text requires a team effort involving many individuals. As an author, I'm delighted that my partnership with Macmillan Education has been ongoing for more than 25 years. Although I thank everyone in the team at Macmillan, there are some key people I want to single out for special thanks. The production of this text has been overseen by Patrick O'Duffy (Content Development Manager), who has encouraged, supported and, at times, pushed me along to ensure that deadlines were met. Thank you Patrick, for believing in this project and for taking a hands on approach to the development of the text. Your commitment has been exceptional and I appreciate your work immensely. Your new ideas have been invaluable and are a welcome addition to the text. Thank you to Olive McRae (Publishing Director) for your ongoing support. It has been a pleasure to work with such a professional and I certainly appreciate your input, guidance and enthusiasm. Thank you also to Erin Dowling (Digital Product Manager) for your wonderful work with the video content. Your positive attitude is infectious and you made the making of videos less stressful than I thought it would be. Your work with Arlo Cook was outstanding and I thank you sincerely. Thank you too, Arlo. I trust that the making of accounting videos was also a little out of your comfort zone. I thank you for your professional approach and your creative ideas.

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UNIT 3

FINANCIAL ACCOUNTING FOR A TRADING BUSINESS

Small businesses are a major part of the Australian economy. In Victoria, large numbers of sole proprietors (owners) operate their own small trading business, selling items of inventory, such as books, clothing, window glass, floor tiles and cakes to customers. Sole traders need financial data to make effective business decisions. It is this data that an accounting system provides.

In this unit you will learn about:

- the purposes of accounting systems
- how a sole trader uses the double entry system to record financial data
- the perpetual method of recording inventory for a small trading business
- the assumptions that apply when creating accounting reports
- the qualities required to make accounting information useful.

Area of Study 1:
Recording and analysing financial data

On completion of this unit the student should be able to record financial data using a double entry system; explain the role of the General Journal, General Ledger and inventory cards in the recording process; and describe, discuss and analyse various aspects of the accounting system, including ethical considerations.

Area of Study 2:
Preparing and interpreting accounting reports

On completion of this unit the student should be able to record transactions and prepare, interpret and analyse accounting reports for a trading business.

CHAPTERS

1 · 2 · 3 · 4 · 5 · 6 · 7
8 · 9 · 10 · 11 · 12 · 13

1 THE ROLE OF ACCOUNTING

Accounting is more than just recording expenses, updating a spreadsheet or balancing a budget. Accountants are financial data experts who provide clients with advice and information that helps them to run their businesses.

In this chapter you will learn about the role of accountants and the work they do. You will also be introduced to the assumptions that accountants need to consider and follow in creating financial reports.

LEARNING OBJECTIVES

By the end of this chapter, you will be able to:

- explain why small businesses need financial information **[1.1]**
- name the different users of accounting information and their needs **[1.1]**
- outline the role of professional accountants as suppliers of financial information **[1.2]**
- define the five key elements of accounting: assets, liabilities, owner's equity, revenues and expenses **[1.3]**
- distinguish between current and non current assets and liabilities **[1.3]**
- describe the six qualitative characteristics of financial information and outline their role **[1.4]**
- describe the four accounting assumptions and outline their role **[1.5]**

UNIT 3 – PROGRESS 1 2 3 4 5 6 7 8 9 10 11 12 13

1.1 Why is accounting useful?

1.2 The role of accountants

1.3 The elements of accounting

1.4 Characteristics of accounting reports

1.5 The accounting assumptions

Chapter review and exercises

1.1 WHY IS ACCOUNTING USEFUL?

It's easy to underestimate the importance of accounting in business. While entrepreneurs and executives are the visible faces of companies, accountants work behind the scenes. Yet it's that behind the scenes accounting work that gives entrepreneurs the information they need to keep their businesses afloat.

Business owners need to know if their business is making or losing money, and accounting does obviously involve reporting information about profits or losses. However, this is only one aspect of accounting's many uses. Although invisible to some people, accounting is a core element of a successful business's overall management strategy. Accountants provide the financial information that management needs to make better decisions.

ANSWERING FINANCIAL QUESTIONS

Managing a business, large or small, involves making decisions based on financial information. Owners and managers have to consider many financial questions, such as:

- Is my business's profit improving or declining?
- Am I earning a sufficient return on my investment?
- Can my business repay any of its outstanding debts?
- Are my credit customers paying on time?
- What is the cost of my business's assets, and how are they financed?

To answer these questions, they need ready access to financial information about every aspect of their business. This information comes from accountants, and from the systems they manage to record financial data. By collecting, classifying and reporting on that data in a meaningful form, they provide business owners with the answers they need.

Many businesses, especially small ones, collapse as a result of a lack of available, meaningful information. If a business owner is well informed, their business has a better chance of surviving, or even thriving.

Accounting provides the financial information that every business needs, whether start-ups or large corporations.

PROVIDING APPROPRIATE INFORMATION

There are many different types and uses of financial information relating to every business. Table 1.1 shows that information that is important to one user may be irrelevant to another.

The user of the financial data decides what information is relevant to them. Accounting must meet the needs of individual users and be flexible enough to satisfy a variety of purposes.

TABLE 1.1 Users of accounting and the information they need

User	Information
Owners/managers of a business	Profit, liquidity, stability, sales, growth, budgets, inventory management, accounts receivable, accounts payable, return on investment
Prospective owners	Budgets, future earnings, predicted returns, stability, prospects of growth
Banks/lenders	Liquidity, stability, budgets
Suppliers of goods or materials	Credit rating, reliability, stability
Employees/unions	Stability of employment, profits, the likelihood of wage increases
Customers	Pricing, credit facilities, future trading opportunities
Government departments	Specific needs relating to their own specialist areas

Accounting cannot provide answers to all business problems. However, if the accounting system functions properly, meaningful reports based on accounting data can be prepared to assist decision makers.

Accounting has a vital role to play in communicating financial information that is accurate, timely and useful.

ETHICAL COMPLIANCE

In addition to financial indicators, some accounting users may be interested in a business's social or environmental impact, or its ethics. When evaluating issues relating to social, environmental or ethical questions, you should consider the potential impact of a decision on the following:

- financial costs to a business
- financial benefits to a business
- the general reputation of a business and its owner(s)
- the environment
- the financial and emotional wellbeing of a business's owners, and customers.

1.1 CHECK YOUR UNDERSTANDING

WB PAGE 1

1 Explain why businesses need financial information.

2 Identify five different users of accounting information. For each user, describe their main areas of interest in terms of financial information relating to small businesses.

3 Describe some of the challenges that may be faced by small business owners in their everyday operations.

1.2 THE ROLE OF ACCOUNTANTS

In the past, accountants were often seen as record keepers (also called bookkeepers). They were employed simply to keep financial records of all business transactions. Management then used the records to make decisions.

This view of accounting is outdated. Modern accountants are at the forefront of management decision making. Information and communications technology has streamlined the actual record keeping process, making it possible for accountants to collect data quickly and accurately. This allows them to have more input into interpreting results as part of a management team.

The key question for business owners is: 'What does the financial data mean?' It is the accountant's role to help owners and managers answer this question.

A large business may employ one or more specialist accountants. Most small business owners, on the other hand, don't have the resources to employ a full time accountant to help them interpret financial results and make better decisions in the future.

To serve the needs of different organisations and users of information, four different types of accountants exist in the larger profession.

FIGURE 1.1 **The four main types of accountants**

PUBLIC ACCOUNTANTS

Public accountants work in business for themselves. They may be sole proprietors, or be in partnership with other accountants. They provide individuals or business owners with expert advice on financial matters. Their areas of expertise may include taxation, finance, auditing, small business management, record keeping, computerised accounting, inventory control or credit control.

Accountants in public practice are usually members of the Institute of Chartered Accountants in Australia (ICAA) or CPA Australia (the business name for the Australian Society of Certified Practising Accountants, or ASCPA). These bodies have their own procedures to ensure that their members are highly trained professional accountants.

PRIVATE ACCOUNTANTS

Private accountants are employed by one particular business as a private employee. Larger businesses employ accountants on a full time basis, so that their expertise is always available for the benefit of the business. Companies often have a team of accountants who specialise in different areas, such as business record keeping, taxation, budgeting, payroll, inventory control or credit control.

Private accountants are also usually members of the ICAA or CPA Australia, but choose to work for one employer rather than in public practice.

GOVERNMENT ACCOUNTANTS

Government accountants are employed by government departments and authorities in the same way that larger businesses employ their own accountants. Federal, state and local governments all conduct complex financial transactions.

While government departments don't have the same profit motive as businesses, they still need to report accurate financial information and plan for future operations. Results of a year's receipts and payments are required from all three types of governments, and each is heavily involved in budgeting for future events.

ACADEMIC ACCOUNTANTS

Academic accountants are the smallest group of qualified accountants. Some members of the ICAA and CPA Australia work in academia, usually in tertiary education or in research for the professional bodies.

As well as helping to educate future accountants, many academics play a role in the development of accounting standards, which set out generally accepted accounting practices and procedures.

1.2 CHECK YOUR UNDERSTANDING

WB PAGE 2

1. Name and describe the roles of the four types of accountants in society.
2. Of the four types of accountants, which are the most likely to be used by small businesses? Justify your response.
3. List the types of financial services provided by accountants to small businesses.

EXAM SUCCESS
When asked to 'justify' something, be specific and use correct terminology. Vague responses will cost you marks in the exam.

1.3 THE ELEMENTS OF ACCOUNTING

When accountants prepare financial reports, they are providing information on the five elements of accounting: assets, liabilities, owner's equity, revenues and expenses. You will be considering and referring to these five elements throughout your Accounting studies, so it is important to have a full understanding of each of them.

ASSETS

assets
economic resources under the control of an entity, which have the potential to produce economic benefits

entity
any person, business or organisation for which accounting records are maintained

Assets are present economic resources controlled by an **entity**. An economic resource has the potential to produce economic benefits in the future. There are two types of assets controlled by business entities: current assets and non current assets.

Current assets are held primarily for the purpose of sale or trading, or are reasonably expected to be converted into cash, sold or consumed by a business within 12 months from the end of the current accounting period. The classification of current assets includes cash on hand, cash at bank, inventory (the goods bought and sold by a trading business) and amounts owing by credit customers (known as accounts receivable).

Non current assets are economic resources that a business expects to use for a number of years, which are not held for the primary purpose of resale. This classification includes assets such as vehicles, machinery, office furniture, computers and shop fittings.

Office furniture is an example of a non-current asset.

LIABILITIES

liabilities
obligations to transfer economic resources to another entity

Liabilities are present obligations of an entity to transfer economic resources. Liabilities include commitments to suppliers of inventory (referred to as accounts payable), Goods and Services Tax (GST) owed to the ATO, and loans due for repayment in future accounting periods. Liabilities may be current or non current.

Current liabilities are obligations that are due to be settled within 12 months from the end of the current reporting period. This classification of liabilities includes accounts payable (which are often based on 30 days' credit), GST owing, bank overdrafts and short term loans (up to 12 months).

Non current liabilities are obligations that don't need to be settled within 12 months of the current reporting period, such as a five year personal loan or a 20 year mortgage loan.

OWNER'S EQUITY

Owner's equity is the residual value of the assets of an entity after deducting all its liabilities. This definition of equity is based on the following equation, often referred to as the accounting equation:

owner's equity the residual interest an owner has in a business after liabilities are deducted from assets

$$\text{Assets} = \text{liabilities} + \text{owner's equity}$$
$$A = L + OE$$

This equation can be expressed in a second form to highlight the owner's equity (also known as the net worth of the owner):

$$\text{Owner's equity} = \text{assets} - \text{liabilities}$$
$$OE = A - L$$

These terms, and their presentation in reports, will be covered in more detail in Chapter 2.

REVENUES

Revenues are increases in assets or decreases in liabilities that result in an increase in owner's equity, other than those relating to contributions by the owner. Revenue includes sales of goods or the provision of services, for either cash or credit. In both cases an increase in assets occurs, as the firm has control over a future economic benefit in the form of cash or accounts receivable. As long as the transaction can be reliably measured, the revenue item may be recognised.

revenues increases in assets, or decreases in liabilities, that result in an increase in owner's equity

Revenue may also include items such as interest on investments, commissions on sales and reductions in debts. For example, a reduction in a liability may occur if a supplier offers a discount for prompt payment. If a firm settles its debts promptly and receives a discount from a supplier, this satisfies the definition of a revenue item. As long as there is an increase in assets (other than a contribution by the owner) or a decrease in liability that leads to an increase in equity, a revenue item should be recognised.

EXPENSES

Expenses are decreases in assets or increases in liabilities that result in a decrease in owner's equity, other than those decreases or increases relating to distributions to the owner. Expenses include items such as wages, rent, the cost of goods sold by a trading business, and discounts offered to accounts receivable. If a business decides to offer a discount to credit customers for prompt payment of an amount, this leads to a decrease in assets, which then leads to a decrease in owner's equity.

expenses decreases in assets, or increases in liabilities, that result in a decrease in owner's equity

ASSETS TO EXPENSES

Assets are resources under the control of an entity that produce economic benefits. If the entity uses up these resources in its operations, these assets then become expenses. Yet, by making these expenses, and using up these assets, the entity generates and earns revenue.

For example, a builder buys building materials, such as wood, tiles, nails and pipes, which are all assets of the company. The materials are used to construct a house, so

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these assets become an expense. The builder is then paid for the construction work, and so earns a revenue. For a profitable building business, the revenue earned for the work should be greater than the value of the assets that were consumed as expenses. The builder can then use some of that revenue to purchase more materials, gaining more assets for the next job.

This relationship between assets, revenues and expenses is vital in determining a business's profit.

1.3 CHECK YOUR UNDERSTANDING

WB PAGE 3

1 Write a brief definition for each of the following terms: assets, liabilities, owner's equity, revenues and expenses.
2 Explain the difference between current assets and non-current assets. Give three examples of each type of asset.
3 Explain the difference between current liabilities and non-current liabilities.

1.4 CHARACTERISTICS OF ACCOUNTING REPORTS

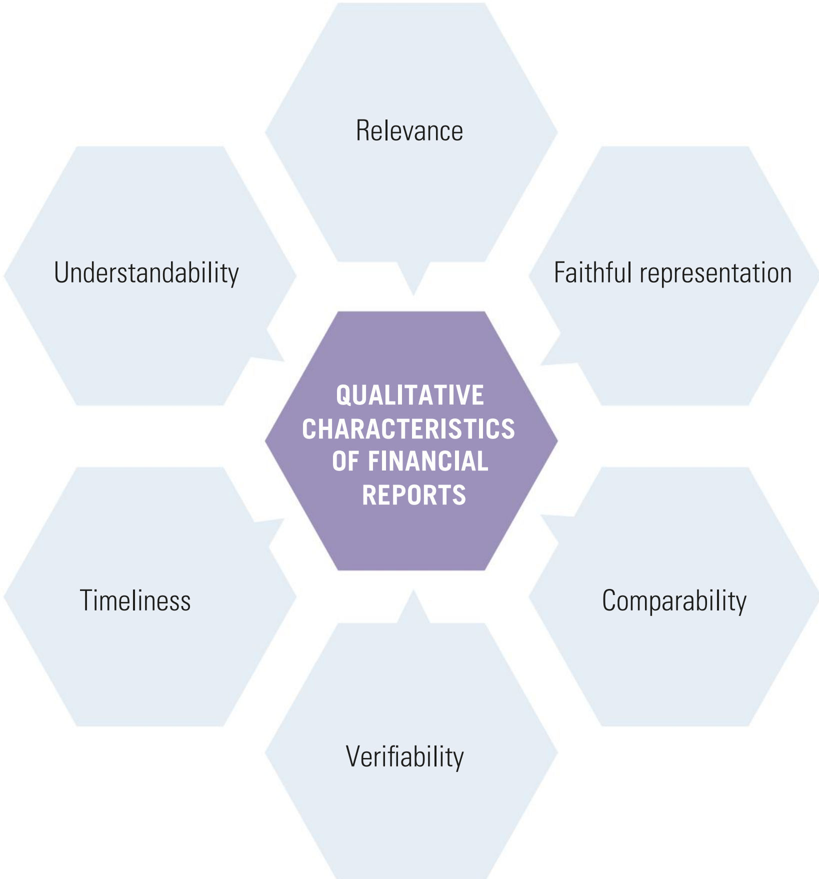
accounting standards rules and regulations that outline acceptable accounting practices and procedures

The International Accounting Standards Board (IASB) approves the rules of accounting worldwide. Rather than each country establishing its own rules and regulations, the accounting profession needed a set of internationally recognised **accounting standards**. The aim was to establish a uniform approach to preparing financial statements that could be followed by professional accountants around the world.

The result was the Accounting Conceptual Framework, which describes the objectives of financial reporting, the concepts on which it is based, and the six main characteristics that all financial reports should have. These characteristics (shown in Figure 1.2) are qualitative that is, they relate to the focus and quality of a report's content, rather than how much content is provided.

From its London offices, the IASB develops international accounting standards.

FIGURE 1.2 **The six main qualitative characteristics of financial reports**



EXAM SUCCESS
Memorise the specific terms for these characteristics. You will not be awarded exam marks if you use an incorrect term, even if the meaning is the same.

RELEVANCE

For information to be **relevant**, it can potentially make a difference to the decisions made by users. Relevant financial information helps users form predictions about the outcomes of past, present or future events. It may also provide suitable feedback about previous evaluations or decisions.

relevance
usefulness of financial information in helping users make decisions

The nature of an item may not be the only test of whether it is relevant; its dollar value is also important. If an item is insignificant in terms of its dollar value, it may not be relevant information. For example, dollar amounts are usually rounded off in financial statements to omit cents, as these small values have little or no impact on decision making.

FAITHFUL REPRESENTATION

The financial information in the report must be a **faithful representation** of real world economic events. The users of the report should feel confident that the information presented is complete, correct and neutral. The report should not be based on personal opinions (to any significant degree) and should accurately represent events that took place during a specific time period.

faithful representation
the requirement that financial information must accurately reflect economic events

COMPARABILITY

Comparability ensures that users can identify and understand similarities and differences in financial reports by following consistent accounting standards and policies. Information about an entity is more useful if it can be compared with similar information either about other entities or about the same entity in different reporting periods.

comparability
the ability to compare similar types of financial information effectively with other entities or over different reporting periods

VERIFIABILITY

verifiability
the premise that financial information is supported by evidence that can be used to check its accuracy

Verifiability means that the information presented in reports accurately represents what it is intended to represent. This means the information is supported by evidence, such as invoices, receipts and bank statements, that users can check.

TIMELINESS

timeliness
providing information to users as quickly as possible so that it remains useful for decision making

Timeliness means making information available to users as quickly as possible so that they can take action. Information that isn't timely is potentially useless; the older it is, the less useful it will be.

For example, if the costs of running a business are getting out of control, the owner needs to know as soon as possible so they can decide what to do. If this information isn't available until the end of the year, it may be too late: the damage to the business may be so great that its future is at risk.

UNDERSTANDABILITY

understandability
financial information should be presented clearly and concisely so that users can easily understand it

Understandability means that users with a reasonable knowledge of business and economic activities should be able to understand the financial information. Information in reports should be presented clearly and concisely, and headings and sub headings should assist general users to navigate their way through and understand the content.

1.4 CHECK YOUR UNDERSTANDING

WB PAGE 4

1 Sharon O'Neill buys a second-hand vehicle for her business at a cost of $18 000. One of her friends tells her that the model she purchased is worth about $19 500. What amount should Sharon use to record the vehicle's value in her firm's financial reports? Explain your answer fully, with reference to a qualitative characteristic of accounting.

2 Why is comparability important to accounting? How does it help management with their decision making?

3 Name three business documents that may be used to satisfy the demands of verifiability.

4 The owner of a small business says that cents may be omitted from all balance sheets. State the qualitative characteristic that may support this statement, and explain why the business owner may be correct.

1.5 THE ACCOUNTING ASSUMPTIONS

In addition to the six qualitative characteristics, four **accounting assumptions** guide creators of financial reports. These assumptions are based on generally accepted accounting practices and procedures; they help to ensure that financial reports are prepared in a similar way across all businesses.

accounting assumptions accepted practices and assumptions followed when creating financial reports

The **accounting entity assumption** stipulates that records of assets, liabilities and business activities of an entity are kept separate from records relating to the activities of the owner of the entity or of other entities. A separate set of accounting records should be maintained for each entity, and any financial statements prepared should only provide information about that entity.

accounting entity assumption the requirement that a business has its own financial status and a separate position from that of its owner or other entities

For accounting purposes, the business is always viewed as a separate entity, regardless of whether it is a sole trader, a partnership or a company. This assumption supports the qualitative characteristic of relevance; personal transactions are excluded, as they are irrelevant to the business entity. This allows the performance of the business to be evaluated, as financial decisions will be based only on the activities of the business entity.

The **accrual basis assumption** is that revenue is recognised (recorded) when it is earned, not when the cash is received, and that expenses are recognised when they're incurred, not when they're paid.

accrual basis assumption recording revenue when it's earned and expenses when they're incurred

Under the accrual basis of accounting, profit is determined by subtracting expenses incurred during a period from the revenue earned during that same period.

The **going concern assumption** is that a business entity will continue to operate, and not be wound up, in the foreseeable future.

going concern assumption a business will continue to operate, and isn't expected to be wound up in the near future

Financial statements prepared under this assumption help users to distinguish between assets that are expected to provide economic benefit in future periods, and expenses that are totally consumed within the current reporting period.

The **period assumption** is that financial reports are prepared for a particular period of time, such as a month, a quarter or a year. Revenues and expenses can then be compared over the one period of time, allowing a profit or a loss to be determined for that reporting period.

period assumption financial activities are recorded and reported on for a particular period of time

If this is done consistently, results can be compared from one reporting period to the next, and the performance of the business entity can be evaluated in a meaningful way.

1.5 CHECK YOUR UNDERSTANDING

WB PAGE 5

1. Max Wilson is the owner of a car detailing firm, a clothing business and a hardware shop. Explain how the accounting entity assumption affects the accounting for Max's businesses.
2. Explain the link between the going concern assumption and the period assumption.
3. The qualitative characteristic of relevance may be supported by an accounting assumption. State the accounting assumption and explain this link fully.

DON'T!
When asked for a qualitative characteristic OR an accounting assumption, do not state one of each, even if you think they're both correct. Always follow the instruction in the question.

1 CHAPTER REVIEW

KEY CONTENT

- [1.1] Accounting is a tool that analyses financial data and provides financial information. It is a key part of a business's overall management strategy.
- [1.1] Users of financial information determine how it is to be used. Accounting must meet the needs of the individual user and be flexible enough to satisfy a variety of purposes.
- [1.2] Accountants are at the forefront of management decision making. There are four main types of accountants: public, private, government and academic.
- [1.3] Accountants provide information on five major elements of financial information: assets, liabilities, owner's equity, revenues and expenses.
- [1.4] The Accounting Conceptual Framework describes the six main qualitative characteristics that financial reports should have.
- [1.5] There are four accounting assumptions that ensure financial reports are prepared in a similar way across all businesses.

CHAPTER 1 EXERCISES

1 Accounting elements

WB PAGE 6

Melbourne Magazines publishes a range of magazines that are sold only to private subscribers. The business accepts prepaid subscriptions; customers can pay in advance for a one , two or three year subscription. During 2022 the firm received a total of $180 000 for its three year subscriptions covering the years 2023, 2024 and 2025. How should this $180 000 be reported in the financial reports of Melbourne Magazines for the year 2022?

In your answer, discuss whether the amount in question should be treated as a revenue item or a liability item. You should also refer to the definitions of the key elements of accounting to justify your answer.

2 Accounting elements

WB PAGE 7

To keep track of her business transactions, the owner of Strathmore Appliances borrows a computer from her sister on a regular basis. The computer cost $5000 two years ago and has recently been valued at $2800.

a How should the computer be treated in the books of Strathmore Appliances? Refer to the appropriate definition of the accounting elements to support your answer.

b Would your answer change if the owner of Strathmore Appliances gave her sister some electrical goods from the business as payment for the use of the computer? Explain your answer fully.

c Would your answer change if the owner paid her sister $1800 for the computer? Should the computer be recognised as an asset of the business? If you answered 'yes', at what value should it be recorded: $5000, $2800 or $2500? Justify your answer.

3 Accounting elements

WB PAGE 8

The owner of Bateman's Bookstore bought $500 worth of stationery during the current reporting period. On 30 June 2022, he found that an unopened box of pens, worth $5, hadn't been used during the period.

a Should the entire $500 be reported as an expense in the firm's reports? Refer to the relevant qualitative characteristic in your answer.

b Would it make any difference to your answer if the value of unused stationery was $150, rather than $5? Explain your answer fully.

4 Qualitative characteristics and accounting assumptions

WB PAGE 8

Kaylene Biffin, the owner of a small business that sells golf equipment, provides this list of her assets to her accountant at the end of a reporting period:

Cash	$12 000 (including $2000 in a personal account)
Inventory	$42 000 (valued at estimated selling price: the cost price was $21 000)
Vehicle	$29 000 (purchased for $45 000)

Kaylene's accountant advises her that she hasn't followed acceptable accounting assumptions and qualitative characteristics.

State and explain which accounting assumption(s) and/or qualitative characteristic(s) Kaylene hasn't followed correctly.

5 Accounting elements

WB PAGE 9

Lachlan Walsh owns a menswear store trading as Sneakerboy. He rents his business premises from City Real Estate at a cost of $40 000 per annum. During recent negotiations the two firms agree on a one off payment of $99 000 on 1 January 2022 for the use of the property during 2022, 2023 and 2024. Lachlan believes that the entire $99 000 should be written off as an expense in 2022, as it represents the loss of economic resources for the year. However, a friend suggests that this would distort the profits of the firm in the following two years.

Discuss both arguments, with reference to the definitions of the five accounting elements and any relevant qualitative characteristics or accounting assumptions.

6 Accounting elements and qualitative characteristics

WB PAGE 10

Nick Zaita is the owner of Coburg Smallgoods. During the reporting period ending 31 December 2022, he purchased the following items:

- computer ($2500)
- printer ($450)
- stapler ($10)
- metal ruler ($4)

Nick estimates that all four items should have a useful life in the business of about three years. However, a friend tells him that all the items are expenses to his business, because they represent an economic sacrifice during 2022.

a Explain the difference between an asset and an expense.

b Identify one reason why all four items should be reported as assets as at 31 December 2022.

c Identify one reason why some of the items should be treated as expenses during 2022.

d Explain how the qualitative characteristic of relevance may be applied to this situation. Taking this characteristic into account, should any of the four items be treated as expenses for 2022? Explain your answer fully.

7 Qualitative characteristics and accounting assumptions

WB PAGE 11

For each of the following situations, identify the relevant qualitative characteristic(s) and/or accounting assumption(s), and explain how they should be applied.

a Marcus Gigliotti is the owner of Brunswick Party Hire. On 10 June, he bought 100 chairs costing a total of $3000. On 15 June, he bought an office desk for the family home at a cost of $1000.

b Classic Styles is a hairdressing salon owned and managed by Betty Semini. In 2005, Betty purchased the business premises for $450 000. Three independent valuers have inspected the property this year and have valued it at $1.1 million, $1.15 million and $1.2 million, respectively.

c The owner of Paula’s Laser Rejuvenation Clinic calculated the profit of her business in her first year using a one month reporting period. When she found that this method was taking up too much of her time, she changed to a six month reporting period. She then got tired of that method and now determines her business’s profit every two years.

d Elaine Hazard hasn’t been able to keep accurate files of the documents used by her smartphone reselling business. However, she is confident that she can remember the transactions for the last month and prepares an income statement on the basis of her memories. She is reasonably confident that her estimate of sales for the month is accurate.

e Johann Gleeson is the owner of Gleeson’s Hardware Warehouse. The business has been struggling lately, and Johann isn’t certain that he will continue to operate next year. With this in mind, he prepares a balance sheet on the basis of what he expects to receive if he decides to sell the firm’s assets.

f Nancy Mifsud doesn’t think it’s necessary to prepare an income statement and balance sheet every year. She has been in business as Moonee Ponds Camping Gear for three years, and has just completed accounting reports for this three year period showing a profit of $65 000.

ETHICAL CONSIDERATIONS

WB PAGE 13

Anthony Orlando operates an accounting practice that specialises in providing taxation and business advice to retail traders. His business is located across the road from a major shopping centre where he has several clients, including Lachlan Walsh, the owner of Sneakerboy.

Recently the shopping centre expanded, bringing a number of potential new clients for Orlando's business. Two different business operators, both opening new luxury sneaker stores, approached him for accounting advice. Anthony isn't sure whether he should provide advice to them. He has asked you what you think he should do.

Discuss this ethical issue. Consider both the potential benefits to Orlando's business, as well as the negative aspects associated with this decision. Also provide a conclusion, including your recommendation to Orlando.

ACCOUNTING IN THE REAL WORLD

WB PAGE 14

Being a professional accountant takes more than just completing your VCE course. You need to be a qualified Chartered Accountant (CA) or Certified Practicing Accountant (CPA), both of which require a recognised tertiary qualification, practical experience of working with a qualified accountant and ongoing professional development.

However, many opportunities open up for a qualified accountant. Certification is recognised internationally and allows you to work anywhere in the world. Various professions work with chartered accountants, helping them develop their skills and placing them into interesting, challenging roles worldwide.

The two main professional accounting bodies in Australia are CPA Australia and the Institute of Chartered Accountants in Australia. Visit their websites and answer the following questions.

a What are the requirements for membership of these two organisations?

b How many members does each organisation have?

c What services and/or information are available for students of accounting?

d What are the benefits of being a member of each organisation? What professional career opportunities would there be for you if you were to join one of them?

CPA Australia	mea.digital/cpaaustralia
ICAA	mea.digital/charteredaccountants

CHAPTER CHECKLIST

Now that you have finished Chapter 1, double check your progress.

Are you ready for your Unit 3 assessment?

I have …

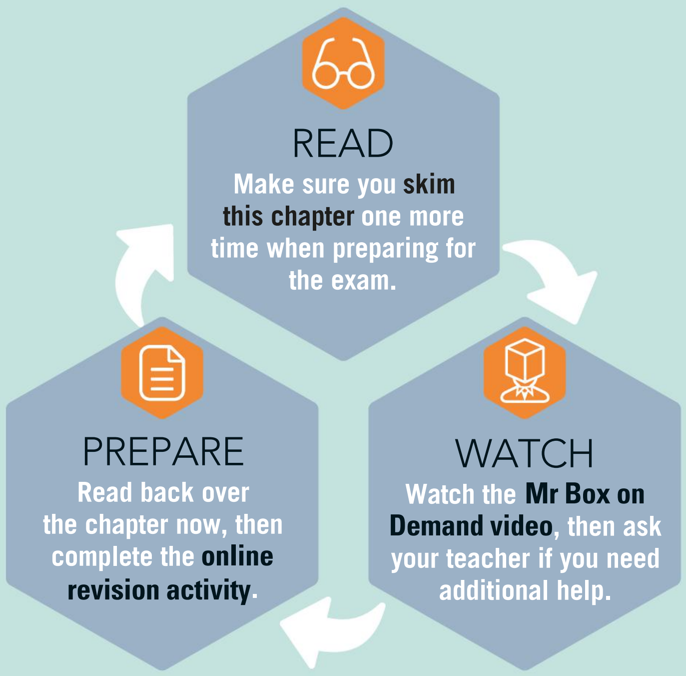
- completed all 'Check Your Understanding' questions
- completed all exercises
- completed the end of chapter activities
- handed in my workbook for marking.

I understand …

- accounting assumptions and qualitative characteristics as applicable
- the accounting elements: assets, liabilities, owner's equity, revenues and expenses
- classification of assets and liabilities into categories of current and non current
- ethical considerations when making business decisions in relation to operating a trading business.

I can …

- use correct accounting terminology
- explain and apply relevant qualitative characteristics and accounting assumptions
- distinguish between current and non current assets, and current and non current liabilities
- discuss ethical considerations involved in decisions made by owners of trading businesses.



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2 BALANCE SHEETS

In Chapter 1 you learnt about accounting reports and how they help management to make decisions. In this chapter you will look at one of the most important reports the balance sheet, which shows a business's financial position.

Throughout this chapter and this entire unit, keep in mind the six qualitative characteristics and the four accounting assumptions. They inform all of the decisions that accountants make as they collect data and report on their findings.

LEARNING OBJECTIVES

By the end of this chapter, you will be able to:

- explain the purpose of a balance sheet **[2.1]**
- explain the concept of net worth **[2.1]**
- prepare a balance sheet for a small business in both T form and narrative form **[2.1]**
- prepare a classified balance sheet using appropriate headings **[2.2]**
- explain the difference between interest only loans and instalment loans **[2.3]**
- show the two fold effect of financial transactions on the balance sheet **[2.4]**
- explain how revenues and expenses affect owner's equity in a balance sheet **[2.4]**

UNIT 3 – PROGRESS 1 2 3 4 5 6 7 8 9 10 11 12 13

2.1 Balance sheets

2.2 Classifying balance sheets

2.3 Classifying loans

2.4 Financial transactions and balance sheets

Chapter review and exercises

2.1 BALANCE SHEETS

balance sheet
an accounting report that states the financial position of a business at a particular point in time

The **balance sheet** is prepared at the end of every reporting period. It shows the financial position of a business at a particular point in time. A balance sheet has three main sections.

- **Assets**: The economic resources controlled by an entity as a result of past events. These resources have the potential to produce future economic benefits.
- **Liabilities**: The present obligations of an entity to transfer economic resources as a result of past events.
- **Owner's equity**: The residual value of the assets of an entity after its liabilities are deducted. This is also referred to as the net worth of the business. The owner's equity usually consists of the capital contributed by the owner, plus any profits earned by the firm that haven't yet been distributed.

As you learnt in Chapter 1, the accounting equation connects these three concepts, and is the basis of all balance sheets. It states that:

Assets = liabilities + owner's equity
A = L + OE

To highlight the net worth of a business, it can be expressed as:

Owner's equity = assets – liabilities
OE = A – L

FIGURE 2.1 Balance sheet: T-form presentation

CITY CYCLES: BALANCE SHEET AS AT 30 JUNE 2023

Assets	$	Liabilities	$	$
Cash at bank	3 000	GST clearing	1 000	
Accounts receivable	15 000	Accounts payable	14 000	
Inventory	50 000	Loan (due 30/6/25)	30 000	45 000
Office equipment	14 000	Owner's equity		
Vehicles	68 000	Capital – Ebony Rae		105 000
Total assets	**$150 000**	Total equities		**$150 000**

The accounting equation in this balance sheet is:

Assets $150 000 = liabilities $45 000 + owner's equity $105 000

Equities are any legal claim on the assets of the business. Liabilities include all external equities, as these are obligations of the business to outsiders. The internal equity is the owner's claim on the firm. This is the net worth of the business to the owner, Ebony Rae.

NARRATIVE REPORTS

A T form balance sheet can be redrafted into a narrative format. While a T form statement shows the basic accounting equation across the page, the narrative format is prepared vertically, down the page.

A narrative statement can be prepared in two different styles. The first style shows the assets of the firm in the top half of the report, followed by liabilities and owner's equity in the bottom half. Figure 2.2 presents the same City Cycles information as in Figure 2.1, but in this standard narrative format.

City Cycle's internal equity is the business's net worth to the owner.

FIGURE 2.2 Balance sheet: standard narrative presentation

CITY CYCLES: BALANCE SHEET AS AT 30 JUNE 2023

	$	$
Assets		
Cash at bank		3 000
Accounts receivable		15 000
Inventory		50 000
Office equipment		14 000
Vehicles		68 000
Total assets		**$150 000**
Liabilities		
GST clearing	1 000	
Accounts payable	14 000	
Loan (due 30/6/25)	30 000	45 000
Owner's equity		
Capital – Ebony Rae		105 000
Total equities		**$150 000**

A second style of narrative report highlights the net worth of the business. Many company reports use this style of presentation, and it has additional value when preparing a classified report (page 21). This statement uses the accounting equation of **OE = A – L**. Figure 2.3 shows the City Cycles report in this second style of format.

FIGURE 2.3 Narrative form balance sheet highlighting owner's equity

CITY CYCLES: BALANCE SHEET AS AT 30 JUNE 2023

	$	$
Owner's equity		
Capital – Ebony Rae		105 000
Is represented by:		
Assets		
Cash at bank	3 000	
Accounts receivable	15 000	
Inventory	50 000	
Office equipment	14 000	
Vehicles	68 000	150 000
Less: Liabilities		
GST clearing	1 000	
Accounts payable	14 000	
Loan (due 30/6/25)	30 000	45 000
Net assets		**105 000**

In this style of narrative report, the owner's equity figure is shown as being equal to the net assets of the business. The value of the net assets is calculated by subtracting the total liabilities from the total assets.

T form and narrative form balance sheets show exactly the same information. The only difference is the style of presentation.

2.1 CHECK YOUR UNDERSTANDING

WB PAGE 16

1 Describe the purpose of preparing a balance sheet for a small business.
2 Explain what the term 'net worth' means.
3 State the two components of owner's equity.
4 Identify the differences between a T-form and a narrative form of balance sheet.

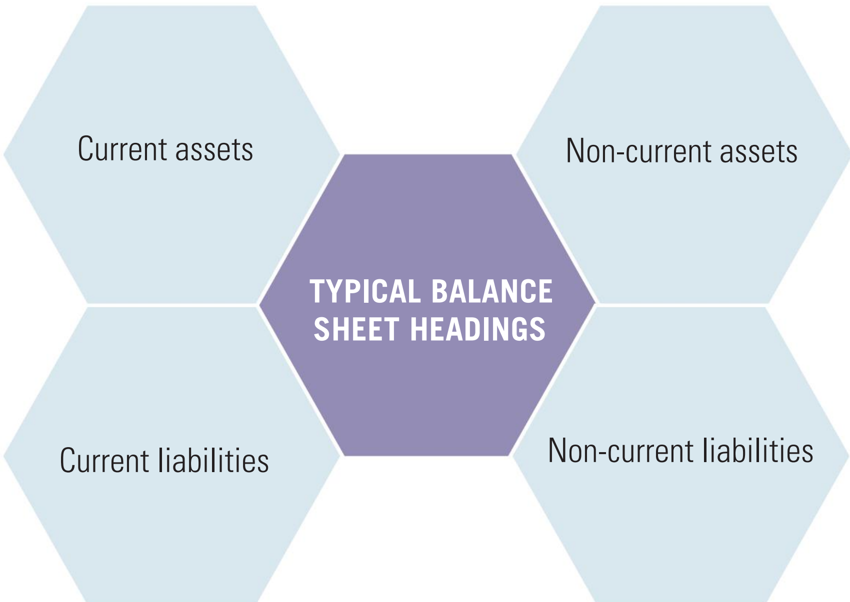
2.2 CLASSIFYING BALANCE SHEETS

In order to provide more information about a business, a balance sheet can be classified to include groups of similar items. Assets are usually classified according to their liquidity; that is, how quickly they can be turned into cash or used up. Liabilities are classified on the basis of how urgently they need to be repaid.

Typical headings used for classification are shown in Figure 2.4.

EXAM SUCCESS
Balance sheets are classified to help satisfy the demands of understandability.

FIGURE 2.4 **Typical balance sheet headings**



- **Current assets**: This classification includes cash and other economic resources that are usually held for the purpose of sale or trading. They are reasonably expected or intended to be converted into cash, or sold, or consumed by a business within 12 months from the end of the reporting period. Current assets include cash on hand, cash at bank, short term investments, inventory (goods held for resale), materials or supplies (e.g. stationery), and amounts owing by credit customers (usually referred to as accounts receivable).
- **Non-current assets**: These are longer term assets. They are usually acquired with the intention of using them for a number of years and are not held for resale. Typical non current assets are computers, vehicles, machinery, furniture, equipment, property and long term investments.
- **Current liabilities**: This classification includes all liabilities that are reasonably expected to be settled within 12 months from the end of the reporting period. Current liabilities include items such as bank overdrafts, short term loans, and amounts owing to suppliers who have extended credit to the business (usually referred to as accounts payable).
- **Non-current liabilities**: These are the longer term obligations of the business, which don't need to be fully settled within 12 months. They are also known as deferred liabilities. Debts for which the payment has been deferred over a period greater than 12 months (e.g. mortgage loans) are listed under this heading.

Even though a loan may be taken out over 10 years, the amount due within the following 12 months is still a current liability. The amount to be repaid over the remaining nine years is a non current liability.

Figure 2.5 redrafts the City Cycles T form balance sheet using these headings to classify assets and liabilities.

FIGURE 2.5 Classified balance sheet (T-form)

CITY CYCLES: BALANCE SHEET AS AT 30 JUNE 2023

Assets Current assets	$	$	Liabilities Current liabilities	$	$
Cash at bank	3 000		GST clearing	1 000	
Accounts receivable	15 000		Accounts payable	14 000	
Inventory	50 000	68 000	Loan	15 000	30 000
Non-current assets			Non-current liabilities		
Office equipment	14 000		Loan (due 30/6/25)		15 000
Vehicles	68 000	82 000	**Owner's equity**		
			Capital – Ebony Rae		105 000
Total assets		**150 000**	**Total equities**		**150 000**

You can see that City Cycles needs to repay a loan, which has been divided into two parts. The loan is due over the next two years, with $15 000 due within the next 12 months, and the remaining $15 000 due the following year.

Classified statements can also be prepared using either of the two narrative formats, as shown in Figures 2.6 and 2.7.

FIGURE 2.6 Classified balance sheet (standard narrative)

CITY CYCLES: BALANCE SHEET AS AT 30 JUNE 2023

Assets	$	$
Current assets		
Cash at bank	3 000	
Accounts receivable	15 000	
Inventory	50 000	68 000
Non-current assets		
Office equipment	14 000	
Vehicles	68 000	82 000
Total assets		**150 000**
Liabilities		
Current liabilities		
GST clearing	1 000	
Accounts payable	14 000	
Loan	15 000	30 000
Non-current liabilities		
Loan (due 30/6/25)		15 000
Owner's equity		
Capital – Ebony Rae		105 000
Total equities		**150 000**

FIGURE 2.7 Classified balance sheet (narrative highlighting owner's equity)

CITY CYCLES: BALANCE SHEET AS AT 30 JUNE 2023

Owner's equity	$	$
Capital – Ebony Rae *Is represented by:*		105 000
Current assets		
Cash at bank	3 000	
Accounts receivable	15 000	
Inventory	50 000	68 000
Current liabilities		
GST clearing	1 000	
Accounts payable	14 000	
Loan	15 000	30 000
Working capital		38 000
Non-current assets		
Office equipment	14 000	
Vehicles	68 000	82 000
		120 000
Less: Non-current liabilities		
Loan (due 30/6/24)		15 000
Net Assets		**105 000**

Working capital is the value of current assets minus current liabilities. It is the liquid funds of a business that can be used in its day to day trading operations.

working capital
current assets minus current liabilities

Classified balance sheets provide more information than unclassified forms. The longer term assets are grouped together, with the firm's liquid assets and short term obligations clearly identified. These groupings can be used as analytical tools when examining a business.

2.2 CHECK YOUR UNDERSTANDING

WB PAGE 17

1. Distinguish between the following sets of terms, and identify two examples for each.
   a. Current assets and non-current assets
   b. Current liabilities and non-current liabilities
2. Explain how a classified balance sheet is more informative for a business owner.
3. Explain what the term 'working capital' means.
4. A business has current assets of $150 000, but current liabilities of $190 000. Calculate its working capital and comment on its working capital situation.

2.3 CLASSIFYING LOANS

When loans are included in a balance sheet, they can be classified in a number of ways. Figure 2.5 (page 22) showed how a two year loan may be reported as both a current and a non current liability, with half of the loan being shown under each heading. The way a business owner treats a liability depends on the type of loan.

In basic terms, there are two ways a business may borrow money: interest only loans and instalment loans.

INTEREST-ONLY LOANS

interest-only loan
a loan that only requires payment of interest during its life, with the amount borrowed repaid in one lump sum at the end

Interest-only loans don't require the borrower to repay the amount borrowed (the principal) until the loan period has expired. Until that time, the borrower only has to pay the interest due to the lender each year.

Interest only loans are classified as non current liabilities in balance sheets until the date the principal has to be repaid.

EXAMPLE 2.1

On 1 December 2023, Nadim's Halal Foods borrows $40 000 as an interest-only loan over five years at 10% per annum interest.

Over the course of the loan, the business only needs to pay the interest of $4000 (10% of $40 000) each year.

None of the principal (the original $40 000 borrowed) needs to be repaid until the five years have passed (30 November 2028).

This type of loan has advantages for a business, as it gives the owner time to accumulate the amount needed to make a single repayment of the principal. However, it requires excellent planning skills, because the total amount borrowed has to be available on the day the loan period expires.

Interest only loans are classified as non current liabilities because they don't need to be repaid within 12 months from the end of the current reporting period.

EXAMPLE 2.2

Nadim's Halal Foods reports the $40 000 as a non-current liability for the first four years that the business has the loan.

Its reporting period ends on 31 December each year, so the loan is reported under the non-current liability heading at the end of 2023, 2024, 2025 and 2026.

When Nadim's balance sheet is prepared on 31 December 2027, however, the loan will be due in only 11 months (30 November 2028).
For this balance sheet, the loan is reported as a current liability because it will need to be repaid within 12 months of the current reporting period.

When classifying an interest only loan in a balance sheet, always check the date when the principal has to be repaid.

INSTALMENT LOANS

instalment loan
a loan that requires scheduled repayments of both principal and interest throughout its life

Instalment loans, as the name suggests, require the borrower to make scheduled repayments throughout the life of the loan. These instalments are usually stated as a dollar amount, paid per month or per quarter. This allows a business owner to avoid having to make one lump sum payment, as is done with the repayment of the principal under interest only loans.

However, instalment loans must be repaid constantly throughout the loan period, which means owners have to ensure that cash is available each month to meet the repayment. This may put a business under steady pressure for several reporting periods.

EXAM SUCCESS
Questions in your Accounting exam may state the actual monthly repayment of a loan in dollar terms. Multiply the monthly repayment by 12 to determine the amount to be reported as a current liability. The remainder of the loan is then listed under non-current liabilities.

EXAMPLE 2.3

On 31 December 2023, Essendon Books borrows $50 000 from the bank over five years.

ESSENDON BOOKS: BALANCE SHEET (EXTRACT) AS AT 31 DECEMBER 2023

Current liabilities		
Bank loan	10 000	
Non-current liabilities		
Bank loan	40 000	50 000

The loan involves equal repayments over the five years, so the business must repay one-fifth of the $50 000 in the next 12 months. To reflect this, $10 000 has been reported as a current liability, with the remaining $40 000 as a non-current liability.

One year later, the situation would be:

ESSENDON BOOKS: BALANCE SHEET (EXTRACT) AS AT 31 DECEMBER 2023

Current liabilities		
Bank loan	10 000	
Non-current liabilities		
Bank loan	30 000	40 000

As a full year has passed, one-fifth of the loan has been repaid. The business now owes $40 000 in total to the bank.

Once again, the owner has an obligation due within the next 12 months (another $10 000), which is reported as a current liability.

The non-current liability will be reduced by $10 000 each year until only $10 000 is left unpaid. When this occurs, the remaining $10 000 amount will be reported as a current liability.

Note: The loan calculations in these examples only relate to the repayment of the principal amount borrowed. The payment of interest on loans is treated separately, because interest payments represent the cost of borrowing money. Interest is reported as an expense item in each reporting period that the loan exists.

2.3 CHECK YOUR UNDERSTANDING

WB PAGE 18

1 Distinguish between an instalment loan and an interest-only loan.
2 State one advantage and one disadvantage of both instalment and interest-only loans.
3 Most business loans are instalment loans. Describe a business or industry where interest-only loans may be more suitable. Explain your answer fully.

2.4 FINANCIAL TRANSACTIONS AND BALANCE SHEETS

The balance sheet reports the values of assets, liabilities and owner's equity at a given date. These three main groups make up the basic accounting equation.

As you learnt in Chapter 1, two other categories of items are also affected by transactions:

- **Revenues**: Revenues usually arise through the provision of services or the sale of goods; for example, charter fees for a bus company, ticket sales for a cinema, cash or credit sales of inventory by a trading firm, and interest on investments.
- **Expenses**: Expenses include such items as wages, advertising, rent, insurance, depreciation of non current assets and the cost price of inventory sold.

Under the accrual basis assumption of determining profit (see Chapter 1), revenue earned minus expenses incurred equals the net profit earned for a period. All of the revenue and expense items relating to a particular reporting period are shown in an accounting report known as an income statement. The net profit or loss is then added to or subtracted from the owner's equity in the balance sheet.

Income statements will be covered in detail in Chapter 11. At this stage, it is important to understand that revenues increase owner's equity, while expenses decrease it.

THE TWO-FOLD EFFECT OF TRANSACTIONS

Every financial transaction entered into by a business will affect at least two items in the business's balance sheet. This 'two fold' effect of transactions is the basis of double entry accounting. Figure 2.8 on the next page demonstrates how individual transactions have a two fold effect on the balance sheet of a small business.

In addition, transactions that attract the Goods and Services Tax (GST) have to be reported in the balance sheet. When GST is collected by a business, it increases the liability owing to the government. If a business pays GST on items purchased, this decreases the **GST liability**, or may even create an asset (if the business is owed a **GST refund**).

GST liability
an obligation to the ATO because the business has collected (or charged) more GST than it has paid

GST refund
an amount owed by the ATO because the business has paid (or been charged) more GST than it has collected

Every financial transaction will affect at least two items in the balance sheet.

FIGURE 2.8 The two-fold effect of transactions on the balance sheet

Transaction	First effect	Second effect
1 Owner deposited $200 000 cash to commence business	Increase Cash at Bank account (asset) by $200 000	Increase Capital account (owner's equity) by $200 000
2 Took out an interest-only loan of $60 000	Increase Cash at Bank account (asset) by $60 000	Increase Loan account (liability) by $60 000
3 Bought shop fittings for $20 000 cash, plus GST of $2000	Increase Shop Fittings account (asset) by $20 000 Decrease GST Liability account by $2000	Decrease Cash at Bank account (asset) by $22 000
4 Purchased inventory on credit for $25 000, plus GST of $2500	Increase Inventory account (asset) by $25 000 Decrease GST Liability account by $2500	Increase Accounts Payable account (liability) by $27 500
5 Sold goods for $3000 cash, plus GST of $300 (cost price of goods sold $1000)	[1] Increase Cash at Bank account (asset) by $3300 and decrease Inventory account (asset) by $1000 [2] Total overall increase in assets $2300	[3] Increase GST Liability account by $300 [4] Increase Capital account (owner's equity) by $2000 [5] Revenue $3000 less expense $1000 = $2000 profit Total increase $2300
6 Paid wages for the week of $1000	Decrease Cash at Bank account (asset) by $1000	Decrease Capital account (owner's equity) by $1000, as wages are an expense

Regardless of the nature of the transactions, there will *always* be at least two items affected in the firm's balance sheet.

For example, item 5 in Figure 2.8 shows what happens to the report when goods are sold for cash:

- [1] One asset increases (Cash at Bank by $3300), while a second asset decreases (Inventory by $1000).
- [2] The net effect of this transaction is a total overall increase in assets of $2300.
- [3] The GST Liability account increases by $300, because the business collects $300 on its sale on behalf of the government.
- [4] Owner's equity also increases by $2000, because this is the actual profit made on the sale of the goods. This figure represents the net gain made on the sale.
- [5] The inventory sold cost $1000 and was sold for $3000, so the owner ultimately experiences a $2000 increase in net worth.

Similarly, in item 6, which involves the payment of an expense, both the Cash at Bank account and the owner's equity experience a decrease of $1000.

Always keep in mind that revenue items increase an owner's equity, while expense items decrease it.

TRANSACTION WORKSHEETS

A second way to show the effect of transactions on the balance sheet is to use a worksheet. The worksheet is based on the accounting equation, with assets on the left side and liabilities and owner's equity on the right side.

The worksheet in Figure 2.9 includes the same transactions as in Figure 2.8, but this time each item in the balance sheet is changed as the transactions are considered.

FIGURE 2.9 **Worksheet approach**

Transactions	Assets			Liabilities			Owner's equity
	Cash at bank $	Inventory $	Shop fittings $	GST clearing $	Accounts payable $	Loan $	Capital $
1 Owner deposited $200 000 cash to commence business	+200 000						+200 000
2 Took out an interest-only $60 000 loan	+60 000					+60 000	
3 Bought shop fittings for $20 000 cash, plus GST of $2000	–22 000		+20 000	–2 000			
4 Purchased inventory on credit for $25 000, plus GST of $2500		+25 000		–2 500	+27 500		
5 Sold goods for $3000 cash, plus GST of $300 (cost price of goods sold: $1000)	+3 300	–1 000		+300			+3 000 –1 000 = +2 000
6 Paid wages for the week of $1000	–1 000						–1 000
Overall result	240 300	24 000	20 000	(4 200)	27 500	60 000	201 000

The final results of the transactions may then be reported in a formal balance sheet, using the accounting equation of assets = liabilities + owner's equity.

BALANCE SHEET

Assets	$	Liabilities	$	$
Cash at bank	240 300	Accounts payable	27 500	
GST clearing	4 200	Loan from bank	60 000	87 500
Inventory	24 000	**Owner's equity**		
Shop fittings	20 000	Capital		201 000
	288 500			288 500

In relation to the GST, note that the balance of $4200 has been reported as an asset (GST Clearing). At this point in time, the business has paid $4200 more in GST than it has collected. Some accounting software may report this as a negative amount in the current liabilities section of a balance sheet. However, this figure represents a future benefit to the business (a GST refund), so it should be reported as a current asset.

While this example shows how transactions have a two fold effect on the balance sheet, it isn't practical for real businesses to draw up tables like Figure 2.8 to record transactions. Later chapters show some of the accounting procedures used in real businesses. However, such procedures are still based on the principle that every transaction has a two fold effect on the balance sheet, no matter how large or small the business.

PREPARING BALANCE SHEETS FOR EVERY TRANSACTION

A second approach is the preparation of a balance sheet after every transaction. Again, accountants don't record transactions this way in practice, but it's a useful way to learn about how transactions affect a firm's accounting equation.

The following transactions relate to the business of Joulian's Carpets. After each transaction a new balance sheet has been prepared, showing the firm's current financial situation.

1 July AC Joulian deposited $300 000 to commence business

JOULIAN'S CARPETS: BALANCE SHEET AS AT 1 JULY 2023

Assets	$	Owner's equity	$
Cash at bank	300 000	Capital	300 000
	300 000		300 000

Balance sheet changes:

- increase in Cash at Bank (asset) of $300 000
- increase in Capital (owner's equity) of $300 000.

2 July Purchased inventory for the business for cash at a cost of $30 000, plus GST of $3000

JOULIAN'S FURNITURE: BALANCE SHEET AS AT 2 JULY 2023

Assets	$	Owner's equity	$
Cash at bank	267 000	Capital	300 000
Inventory	30 000		
GST clearing	3 000		
	300 000		300 000

Balance sheet changes:

- Cash at Bank (asset) decreases by $33 000
- Inventory (asset) increases by $30 000
- business is owed $3000 for the balance of its GST account.

3 July Purchased a second-hand vehicle for the business at a cost of $50 000, paying $10 000 cash with the balance payable to Auto Sales within 60 days

JOULIAN'S CARPETS: BALANCE SHEET AS AT 3 JULY 2023

Assets	$	Liabilities	$
Cash at bank	257 000	Accounts payable	40 000
Inventory	30 000	**Owner's equity**	
GST clearing	3 000	Capital	300 000
Vehicle	50 000		
	340 000		340 000

Balance sheet changes:

- Cash at Bank (asset) decreases by $10 000
- Vehicle (asset) increases by $50 000
- Accounts Payable (Auto Sales) (liability) increases by $40 000.

4 July Paid for advertising $3000 and insurance $2000 (plus GST of $300 and $200, respectively)

JOULIAN'S CARPETS: BALANCE SHEET AS AT 4 JULY 2023

Assets	$	Liabilities	$
Cash at bank	251 500	Accounts payable	40 000
Inventory	30 000	**Owner's equity**	
GST clearing	3 500	Capital	295 000
Vehicle	50 000		
	335 000		335 000

Balance sheet changes:

- Cash at Bank (asset) decreases by $5500
- GST clearing goes up by $500 (as these expenses attracted GST)
- Capital (owner's equity) decreases by $5000.

5 July Sold goods that cost $4000 for $10 000 cash, plus GST of $1000

JOULIAN'S CARPETS: BALANCE SHEET AS AT 5 JULY 2023

Assets	$	Liabilities	$
Cash at bank	262 500	Accounts payable	40 000
Inventory	26 000	**Owner's equity**	
GST clearing	2 500	Capital	301 000
Vehicle	50 000		
	341 000		341 000

Balance sheet changes:

- $4000 worth of goods were sold, so Inventory (asset) decreases by $4000
- Cash at Bank (asset) increases by $11 000 (including GST)
- Capital increases by $6000, representing the profit made on the sale ($10 000 $4000 = $6000).
- GST Clearing (asset) goes down by $1000.

Note the change in GST Clearing. The business previously paid $3500 GST but has now collected $1000 GST on its sales. The $1000 GST it collected has been deducted from the GST it paid previously, meaning that the government now owes the business a GST refund of $2500.

DON'T!
Even though revenues and expenses affect the owner's equity, these items are NOT reported in a balance sheet.

Daily sales are recorded as a single large transaction, rather than multiple small transactions.

6 July   Sold goods on credit for $10 000, plus GST of $1000 (cost price of inventory sold $5000)

JOULIAN'S CARPETS: BALANCE SHEET AS AT 6 JULY 2023

Assets	$	Liabilities	$
Cash at bank	262 500	Accounts payable	40 000
Inventory	21 000	**Owner's equity**	
GST clearing	1 500	Capital	306 000
Accounts receivable	11 000		
Vehicle	50 000		
	346 000		346 000

This transaction is similar to the previous one except that, instead of Cash at Bank increasing, it results in the creation of an accounts receivable asset.

Balance sheet changes:

- Accounts Receivable increases by $11 000 (sale of $10 000, plus GST of $1000)
- GST Clearing decreases by $1000
- Inventory (asset) decreases by $5000
- Owner's equity increases by $5000 ($10 000 $5000 = $5000 profit).

7	July	Repaid Auto Sales $15 000 of amount owing

JOULIAN'S CARPETS: BALANCE SHEET AS AT 7 JULY 2023

Assets	$	Liabilities	$
Cash at bank	247 500	Accounts payable	25 000
Inventory	21 000	**Owner's equity**	
GST clearing	1 500	Capital	306 000
Accounts receivable	11 000		
Vehicle	50 000		
	331 000		346 000

Balance sheet changes:

- decrease in Cash at Bank (asset) of $15 000
- corresponding decrease in Accounts Payable (Auto Sales) (liability) of 15 000.

As you can see, *every* financial transaction affects the balance sheet of a business in at least two ways. Revenue earned increases the owner's claim on the firm, while expenses incurred decrease the owner's equity.

Regardless of the nature of the transaction, the accounting equation must always hold true: assets must always equal liabilities plus owner's equity.

Individual or summary accounts?

If a business only has a few suppliers providing inventory on credit, it may maintain individual accounts payable in the general ledger. At the end of the period, the individual accounts may also be shown in the balance sheet. However, if a business has numerous accounts payable, it may just provide a summary figure and a total of the amount.

Similarly, if a business provides goods on credit, entries may be required in multiple ledger accounts for each individual accounts receivable. Each individual customer may also be listed in the balance sheet to provide relevant information. However, if a business has many credit customers, this may clutter up the balance sheet with unnecessary detail.

2.4 CHECK YOUR UNDERSTANDING

WB PAGE 19

1. Explain how revenue and expense items affect the balance sheet of a business.
2. A business has collected GST of $1200 on its cash sales and has paid $400 GST to its suppliers. Explain how this firm should report GST in its balance sheet.
3. GST may be reported in two different ways in a balance sheet. Describe these, giving examples as part of your answer.

2 CHAPTER REVIEW

KEY CONTENT

- [2.1] A balance sheet shows the financial position of a business at a particular point in time. It provides information on assets, liabilities and owner's equity, reflecting the accounting equation: A = L + OE (or OE = A L)
- [2.1] Balance sheets can be created in a T form style or narrative style. Narrative reports show the same information as T form reports but may be easier to understand.
- [2.2] In order to provide more information about a business, a balance sheet can be classified to include groups of similar items under headings. Typical headings include:
  - Current assets
  - Non current assets
  - Current liabilities
  - Non current liabilities
- [2.3] A business may borrow money in the form of an interest only loan or an instalment loan. Interest only loan: borrower repays the principal of the loan when the loan period has expired Instalment loan: borrower makes scheduled repayments of the principal throughout the life of the loan.
- [2.4] Transactions such as revenues and expenses aren't reported directly in a balance sheet. However, they affect the value of assets, liabilities and owner's equity, which are reported.
- [2.4] All transactions will affect at least two items in a firm's balance sheet. This 'two fold' effect of transactions is the basis of double entry accounting.

CHAPTER 2 EXERCISES

1 Classifying balance sheet items

WB PAGE 20

The following items relate to the business Galaxy Games. For each item, state whether it would appear in a balance sheet (under the headings 'Current assets', 'Non current assets', 'Current liabilities', 'Non current liabilities' and 'Owner's equity') or whether it is irrelevant.

a Office furniture
b Cash on hand
c Bank overdraft
d Amounts owing by credit customers
e Office equipment
f Inventory of games
g GST refund due from the ATO
h Land and buildings

i Mortgage loan
j Office stationery on hand
k Owner's personal vehicle
l Two year term deposit made in the name of the business
m Three year loan taken out by the owner's husband
n Amount invested by the owner to commence business
o Amounts owing to suppliers of toys and games
p GST owing to the ATO

SPREADSHEET

2 Preparing balance sheets

WB PAGE 20

The owner of Central Office Supplies provides the following information concerning his business as at 30 September 2023.

- Cash on hand $200
- Inventory $56 000
- Cash at bank $3200
- Amounts owing by credit customers (accounts receivable) $4400
- Vehicle $48 000
- Amounts owing to suppliers (accounts payable) $3300
- GST liability $300
- Loan from National Australia Bank (due 31/8/24) $22 000

a Prepare a classified balance sheet as at 30 September 2023.

b State the accounting equation of the firm as at 30 September 2023.

SPREADSHEET

3 Preparing balance sheets

WB PAGE 21

The following information is supplied by the owner of Vintage Vinyl on 31 August 2023.

- Cash on hand $500
- Bank overdraft $1000
- Business premises $720 000
- Accounts payable $6500
- Inventory $59 700
- Accounts receivable $4480
- Office furniture and fittings $12 000
- Vehicles   business $31 000 and private $28 000
- Mortgage loan (due 2034) $180 000
- Personal home loan $234 000
- Loan for business vehicle $8000 (repayable over next two years)
- GST liability $2400

a Using the relevant information from the items listed, prepare a classified balance sheet for Vintage Vinyl as at 31 August 2023.

b Explain your treatment of the following items:

i vehicle   private   ii personal home loan.

Refer to the relevant qualitative characteristic and/or accounting assumption in your answer.

c State the accounting equation in the balance sheet in part a, clearly showing the net worth of the business to the owner.

4 Preparing balance sheets

WB PAGE 22 SPREADSHEET

The following financial items relate to Schulberg's Car Yard, a business that sells quality cars.

- Cleaning equipment $5800
- Cash at bank $1000
- Office furniture $5800
- Starting capital contributed by Renee Schulberg $340 000
- Accounts payable   Deluxe Car Auctions $129 000
- Office equipment $4900
- Inventory of cars $582 000
- Accounts receivable $109 500
- Loan from National Australia Bank (due 15/7/24) $15 000
- Land and buildings $895 000
- Inventory of cleaning materials $860
- Mortgage loan on premises $375 000 (repayable $1600 per month)
- GST paid $10 240
- GST collected $15 440

Additional information

- The owner says that she has earned a profit in the two years the business has been operating, and that these amounts have been retained within the business. The actual amount of these profits isn't known.
- A friend of the owner recently offered her $3500 for the firm's office equipment.
- The owner is thinking of buying a computer system for the business during October 2023 for about $2000.

a Prepare a classified balance sheet for Schulberg's Car Yard as at 30 September 2023.

b Explain your treatment of each of the additional information items. Refer to the qualitative characteristics or any relevant accounting assumptions.

5 The two-fold effect of transactions

WB PAGE 22

Jack Rio set up his small business, Jack's Cabinets, on 1 March 2023. During the first week, he had the following business transactions:

Mar	1	The owner deposited $375 000 cash to start the business
	2	Bought an office desk for $2000 cash, plus GST of $200
	3	Purchased inventory for $10 000 cash, plus GST of $1000
	4	Bought an office computer for $5000, plus GST of $500, on credit from City Computers
	5	Sold goods that had cost $4500 for $8500 cash, plus GST of $850
	6	Paid for advertising $1000, plus GST of $100

Prepare a table to show the two fold effect of each of these six transactions. (Hint: Use the format shown in Figure 2.8.)

SPREADSHEET

6 The two-fold effect of transactions

WB PAGE 23

The following information comes from the books of Smartphone Select:

May	1	The owner, Alice Dobson, contributed cash of $95 000, Inventory of $15 000 and a vehicle valued at $25 000 to the business
	2	Sold inventory for cash $9000, plus GST of $900 (cost price $4000)
	3	Bought second-hand shop fittings for $14 000, paying $4000 deposit with the balance due in 30 days to Colin Carpenter
	4	Sold goods for cash $3000, plus GST of $300 (cost price $1200)
	5	Sold goods on credit to S Catania for $2000, plus GST of $200 (cost price $800)
	6	Paid wages for week $500
	7	Purchased more inventory on credit from Android Direct $8000, plus GST of $800
	8	The owner withdrew $1000 from the business for personal use
	9	Paid advertising of $100, plus GST of $10
	10	Received cash from S Catania $1200

a Prepare a worksheet to show the two fold effect of the listed transactions for the period 1 10 May. Follow the format shown in Figure 2.9 and use the following headings:

Assets: Cash at Bank, Inventory, Accounts Receivable, Vehicle, Shop fittings

Liabilities: GST, Accounts Payable

Owner's equity: Capital

b Prepare a balance sheet as at 10 May 2023.

SPREADSHEET

7 Transactions and the balance sheet

WB PAGE 24

The following transactions relate to Aberfeldie Camera Supplies. After each transaction, prepare a new balance sheet for the business and state the accounting equation as at that date.

2023		
Apr	1	Farouk Hussain (proprietor) deposited $100 000 cash to commence business
	2	Bought inventory costing $8000, plus 10% GST, for cash
	3	Purchased shop fittings on credit from Fawkner Shop Fitters at a cost of $16 000, plus GST of $1600
	4	Hussain contributed a personal computer valued at $1500 to the business
	5	Borrowed $5000 over three years from NAB
	6	Repaid Fawkner Shop Fitters $10 000
	7	Paid wages to the assistant of $800
	8	Sold goods that had cost $1500 for $3000 cash, plus GST of $300

8 Preparing balance sheets

WB PAGE 28 SPREADSHEET

Emily Paul is the owner of Kennels & Cages, a small business that specialises in homes for pets. After each of the following transactions, prepare a new balance sheet for the business.

2023

May 1 Emily contributed $120 000 cash and $3000 worth of equipment to start her business

2 Paid first week's rent of business premises $1000, plus $100 GST

3 Purchased inventory of kennels for $3600 cash, plus GST of $360

4 Purchased inventory of cages for $4400 on credit, plus GST of $440

5 Sold a kennel for $1500 cash, plus GST of $150 (cost price $700)

6 Paid for advertising $300, plus GST of $30

7 Bought a vehicle for $14 000, plus GST of $1400, paying $4000 cash, with the balance funded by a loan from CAG Finance Co.

8 Emily withdrew $500 for personal use

9 Sold a kennel for $1800, plus GST of $180, on credit (cost price $800)

10 Paid accounts payable $2000

9 Preparing balance sheets

WB PAGE 31 SPREADSHEET

The following balance sheet and financial transactions relate to Total Turntables. The business has an overdraft facility with the local bank.

TOTAL TURNTABLES: BALANCE SHEET AS AT 31 JULY 2023

Assets	$	Liabilities	$	$
Cash on hand	*500*	GST clearing	1 000	
Cash at bank	1 100	Accounts payable	2 400	
Accounts receivable	2 800	Loan – NAB	2 000	
Inventory	72 500	Loan – EZ Finance	8 000	13 400
Office equipment	*14 000*			
		Owner's equity		
		Capital – A Taranto		77 500
	90 900			90 900

- Payments to Accounts Payable were $900.
- Two new turntable sets were purchased on credit at a cost of $1200 each (plus 10% GST) these were added to the firm's inventory.
- Cash collected from Accounts Receivable $1500.
- A new printer was purchased for the office for $900 cash, plus GST of $90.
- Sales earned for the month totalled $8000, plus GST of $800, consisting of $3300 received in cash and $5500 to be received during September. (The cost of sales for the month totalled $4000.)
- Expenses paid during August were wages $2000, advertising $500 and rent $4600 (GST paid $510).
- The owner withdrew $4500 from the business for personal use.
- $1000 was paid off the loan from EZ Finance, and $500 was paid off the NAB loan.

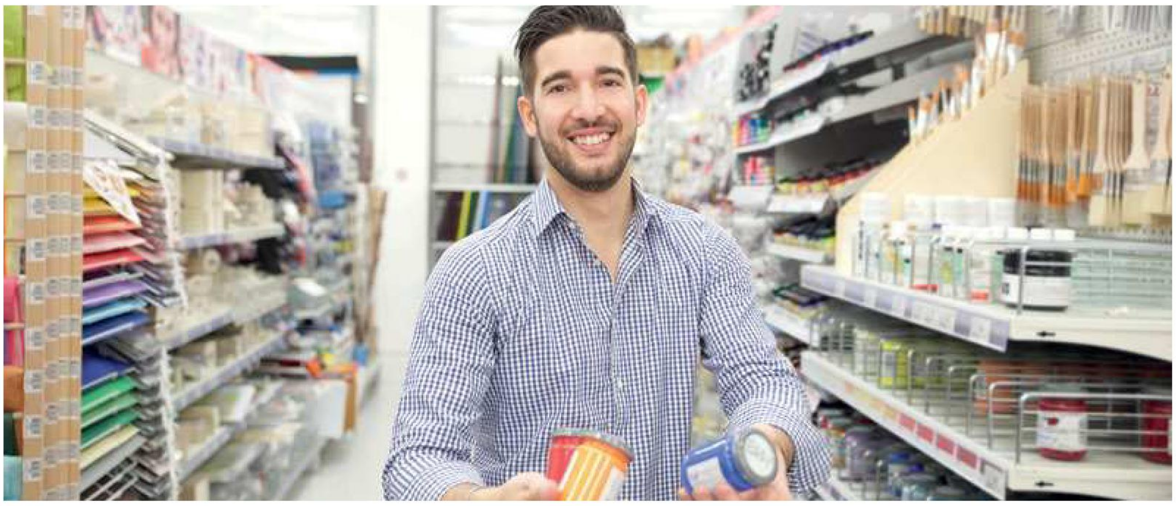
Prepare a balance sheet to show the business's financial position as of 31 August 2023.

CASE STUDY

WB PAGE 31

SPREADSHEET

Will Andrews is the owner of a small business trading as Andrews' Art Supplies. Will studied Accounting in high school, but his knowledge is a little rusty these days. He has prepared a balance sheet for his business but has a few queries for you to consider.



Andrews prepared the following statement:

ANDREWS' ART SUPPLIES: BALANCE SHEET AS AT 31 JULY 2023

Assets	$	Liabilities	$	$
Cash at bank	2 420	Bank overdraft	5 000	
Accounts receivable	5 460	Accounts payable	6 000	
Inventory	42 000	GST clearing	5 260	16 260
Computer	3 000	**Owner's equity**		
Vehicle	36 000	Capital – W Andrews		72 620
	88 880			88 880

Additional information:

- The last bank statement Will received, dated 31 July 2023, showed a balance of $2420 in the bank. However, he expects to run low on cash in the next couple of months and has arranged an overdraft limit of $5000 with the bank. He has included this as a liability in his report.
- The inventory on hand cost the business $21 000, but Will always doubles the cost price to determine the inventory's selling price. He has shown inventory in the balance sheet at the value he expects to receive when it is sold.
- The computer is located at Will's private home. It was actually purchased by his wife, but she allows Will to use it to do the books of the business. She bought the computer for $3000 one year ago.
- The vehicle is used in the business to transport goods. It was purchased six months ago for $31 000, but a friend of Will's, who works in the car trade, tells him: 'You got it for a steal. That car normally sells for $36 000!' Will has accepted his friend's valuation.

---

1 Make a list of any qualitative characteristics of accounting, or any accounting assumptions, that Will Andrews may have breached in preparing the above report. For each breach you identify, explain your answer fully.

2 Redraft the balance sheet in line with generally accepted accounting practices and assumptions.

3 State the accounting equation that truly represents the financial position of Andrews' Art Supplies.

ETHICAL CONSIDERATIONS

WB PAGE 33

Jon Holland is the owner of Network Connect, a small business that specialises in the supply and installation of Wi Fi networks for offices. Jon wants to purchase two new vehicles for his team to use to visit customers and carry installation equipment. He is concerned about the environment and is thinking of buying hybrid vehicles, rather than cars with petrol or diesel engines. However, the new vehicles cost as follows.

- Petrol driven vehicle: $42 000
- Diesel driven vehicle: $46 000
- Hybrid vehicle: $52 000

While the hybrid vehicles cost more, they may cost less to fuel and maintain on an ongoing basis.

Jon is unsure about which vehicle to purchase and has asked for your opinion. Discuss the options available to him and the financial implications of each. Which vehicle do you recommend he purchase?

ACCOUNTING IN THE REAL WORLD

WB PAGE 33

Accounting assumptions apply to every business, big and small. However, when you're dealing with larger businesses, there are more transactions to record, more assets to track and generally more challenging work for an accountant.

To get a better idea of how complex accounting work can be, visit the websites of at least three of these public companies in the retailing sector:

- Myer Pty Ltd
- Harvey Norman Ltd
- JB Hi Fi
- Woolworths Ltd

Locate the balance sheet for each firm on their site, then create a spreadsheet with the following elements:

a the name of each company
b the total assets figure from each company's balance sheet
c the values for current assets and current liabilities for each company
d a list of the companies in order, according to the value of their total assets
e brief comments on your findings.

Myer Pty Ltd	mea.digital/myer
Harvey Norman Ltd	mea.digital/harveynorman
JB Hi-Fi	mea.digital/jbhifi
Woolworths Ltd	mea.digital/woolworths

CHAPTER CHECKLIST

Now that you have finished Chapter 2, double check your progress.

Are you ready for your Unit 3 assessment?

I have …

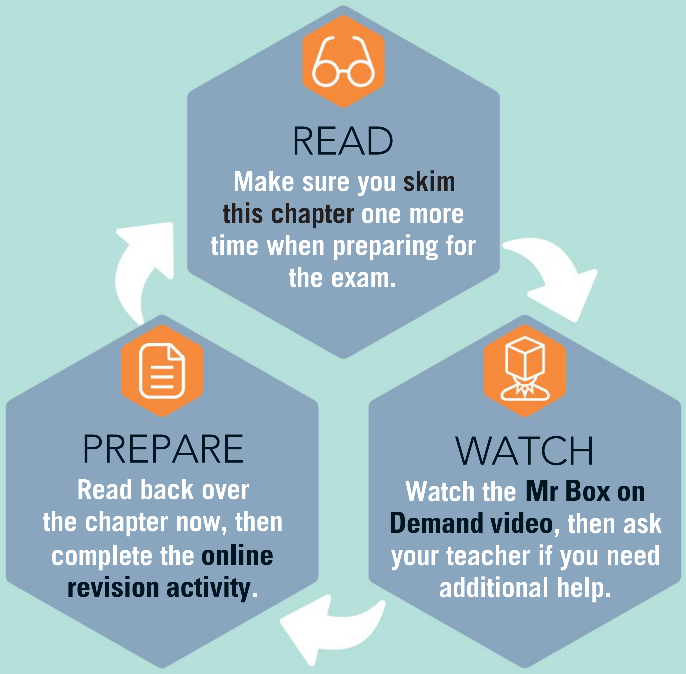
- completed all 'Check Your Understanding' questions
- completed all exercises
- completed all end of chapter activities
- handed in my workbook for marking.

I understand …

- the effect of transactions on the accounting equation
- the recording of transactions using manual methods and ICT including spreadsheets
- characteristics and use of classified accounting reports:
  Balance Sheet
- ethical considerations in relation to recording and reporting of accounting information.

I can …

- use correct accounting terminology
- apply theoretical knowledge to simulated situations
- distinguish between current and non current assets, and current and non current liabilities
- analyse the effect of financial transactions on the accounting equation.



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3 ACCOUNTING SYSTEMS AND BUSINESS DOCUMENTS

Effective accounting requires more than just keeping records of transactions. Accountants need to have a system a consistent method of collecting, storing and processing financial and accounting data to be used by decision makers.

In this chapter you will learn how to create and use accounting systems. You will also learn about the most common business documents, and how to use them within an accounting system.

LEARNING OBJECTIVES

By the end of this chapter, you will be able to:

- outline the basic processes in an accounting system **[3.1]**
- describe the requirements of documents in relation to GST transactions **[3.2]**
- distinguish between the procedures involved in cash and credit transactions **[3.3, 3.4]**
- identify various business documents and describe the role of each **[3.5]**
- identify information flows that occur in a small business **[3.6]**
- explain the advantages and disadvantages of computerised systems **[3.7]**

UNIT 3 – PROGRESS 1 2 3 4 5 6 7 8 9 10 11 12 13

- 3.1 The basic accounting process
- 3.2 The GST and business documents
- 3.3 Source documents for cash transactions
- 3.4 Source documents for credit transactions
- 3.5 Other business documents
- 3.6 Documents and information flow
- 3.7 Computerised accounting systems
- Chapter review and exercises

3.1 THE BASIC ACCOUNTING PROCESS

business documents documents that record the raw financial data of a business's transactions

An accounting system is expected to generate particular types of financial information about a business. This information is usually presented in accounting reports, such as income statements and balance sheets. Such information has its origins in the **business documents** (e.g. invoices and receipts) where the raw data is created.

The basic role of any accounting system is to take this raw data, record it appropriately and summarise the results in well designed reports.

FIGURE 3.1 The accounting process

Collection of raw data	Recording of data	Reporting of results

The success of a business's accounting system will depend on the accounting records and business documents it uses. These documents are the starting point of the accounting process, so they must contain all the required details of the business's financial transactions.

DOCUMENT MANAGEMENT

Standard practice is to produce and retain copies of all business documents, to create a permanent record of all financial events. Often these are digital copies, but some businesses need to retain physical copies. Large businesses often make multiple copies of their business documents, because there are many different users of the same accounting data.

For instance, in a large trading business, the system might work as follows.

- The original document is issued to the customer.
- A white copy is sent to the general accounting department.
- A blue copy is used by the accounts receivable department to update customer accounts.
- A green copy is used to update inventory records.

Each department needs specific details of the transaction. The colours make it easy to identify where the document is to be used.

Small businesses don't need as many copies and can take a simpler approach. They might keep a single physical copy and perhaps a digital copy.

3.1 CHECK YOUR UNDERSTANDING

WB PAGE 35

1. State the three basic steps in the accounting process.
2. Explain why it's important to produce copies of all business documents.
3. How many copies should be made of business documents? Explain your answer fully.

3.2 THE GST AND BUSINESS DOCUMENTS

The 10% Goods and Services Tax was introduced by the Australian government in 2000, and has since become part of everyday life. The GST is applied to most products and services, with a few exceptions such as fresh food. Businesses collect the tax as part of their transactions. They then pay the recorded amount to the Australian Taxation Office on a regular basis.

Businesses that collect GST register with the ATO and receive an Australian business number (ABN). The ABN is used as a reference for tracking GST transactions and should appear on all business documents.

Almost all business documents require GST to be tracked and calculated, as it is a basic part of doing business in Australia.

EXAM SUCCESS
The GST features on most exam questions. Make sure you know how to record and report GST, but also revise the related theory, including how to classify the GST in a balance sheet.

TAX INVOICES

When the GST legislation came into force, it led to the creation of a document known as a **tax invoice**. Businesses issue a tax invoice whenever they provide goods or services to a customer. The tax invoice should contain several key pieces of information, including:

- the name of the business providing the goods or services
- the business's ABN
- the words 'Tax invoice' near the top of the document
- a pre printed document number (used as a reference number)
- the date of the transaction
- a description of the goods or services provided
- the purchaser's name, together with their address or ABN, if the transaction was for $1000 or more
- the GST exclusive price, the GST amount and the GST inclusive price for each item, together with totals for these.

tax invoice business document used to provide evidence of transactions that include GST

Figure 3.2 shows a typical tax invoice. This document satisfies the demands of the ATO and gives the customer the details they need about their transaction.

FIGURE 3.2 A typical tax invoice

SANTO'S SPORTS STORE TAX INVOICE 1321 ABN 11 122 233 344
82 Queens Avenue
North Melbourne VIC 3051 Date: 13 Jan 2023

To: *Brunswick Primary School* Terms: 30 days
12 Sydney Road
Brunswick VIC 3056

Description	Qty	Unit price	Subtotal	GST	Total
Junior footballs	10	$30.00	$300.00	$30.00	$330.00
Indoor soccer balls	20	$20.00	$400.00	$40.00	$440.00
Totals			$700.00	$70.00	$770.00

Total (excluding GST)	$700.00
Total GST payable	$70.00
Total Amount Payable (including GST)	$770.00

Santo's Sports
Specialists in sporting supplies for schools

Although an invoice (page 43) is normally used to verify a credit transaction, some businesses modify their tax invoices so that they can be used as evidence of a cash sale. This simply involves printing 'Cash receipt' at the top of the document next to 'Tax invoice'. The business must also remove any credit terms from the document, as credit isn't being extended. The document will then comply with ATO requirements, while still providing the information the business owner needs.

GST AND RECEIPTS

Many small business owners don't provide credit and only make cash sales. These businesses cannot issue a formal tax invoice like the one in Figure 3.2. Instead, they simply issue a cash register receipt at the time of sale. However, they still have an obligation to keep track of all GST collected, and this should be stated on cash receipts issued to customers.

'Cash' in this context refers to any non credit based payment it can be physical banknotes and coins or digital funds, so long as the company isn't extending credit to the customer.

Figure 3.3 shows a cash receipt that complies with ATO requirements.

FIGURE 3.3 A typical cash register receipt showing GST charged

Centro Stationery
ABN 11 212 454 777
Date: 12/2/23
TAX INVOICE

1 box blue pens	$5.50
1 box red pens	$5.50
1 pkt printer paper	$6.60
1 pkt office paper	$7.70
Total payable	$25.30*
Cash received	$30.00
Change	$4.70

*Total includes GST of $2.30
Received with thanks. Please call again.

Despite the words 'Tax invoice' on this document, this isn't a credit transaction. It is simply evidence of a receipt of cash. Legislation still requires that the words 'Tax invoice' are used on such a document.

Note that the total GST collected is shown as a separate item on the bottom of the receipt. This is important, because the business owner must be able to record all receipts and payments of GST transactions.

3.2 CHECK YOUR UNDERSTANDING

WB PAGE 36

1 Explain the role that business documents play in relation to the GST.
2 What is a tax invoice? Explain your answer fully.
3 State six different items that should be noted on a tax invoice.

3.3 SOURCE DOCUMENTS FOR CASH TRANSACTIONS

There are several basic business documents that businesses use repeatedly in their day to day activities. These are known as **source documents**, because they are the source of the original accounting data.

source documents business documents that are the source of financial data

To use documents as part of an accounting system, you must be able to identify the document, describe its function, and transfer its details to the appropriate accounting record.

The most common business transactions are those involving cash inflows (receipts) and cash outflows (payments).

CASH RECEIPTS

The document used to provide evidence of a cash inflow is a **cash receipt**. If a business receives cash, it issues a receipt to the customer and keeps a copy for itself. Older cash registers create paper copies, while newer ones create digital records, but the principle remains the same. At the end of the business day, the retained copies provide the owner with the total of all cash received.

cash receipt business document used to verify that cash has been received from an outside entity

Handwritten receipts

In addition to the receipt shown in Figure 3.3, a small business might issue a simple handwritten receipt (see Figure 3.4). Although they are becoming less common, they are still used by some traders. These receipts provide only the essential information: the customer's name, the date of the transaction and the amount of cash received.

Best practice is to write the amount received in both words and numbers, to make it totally clear how much has been received. This also helps to prevent fraud, by making it harder for someone to change the numbers on the receipt at a later date.

FIGURE 3.4 A typical handwritten cash receipt

MB Costuming Supplies ABN 04 213 984 618 Rec. 32
1004 Hoffmans Road
Essendon VIC 3040

Date: 16/1/23

Received from: L Palmer
The amount of: Four hundred dollars $ 400.00
For: Payment on account
Signed: M Bateman Thank you for your business

EFTPOS receipts

Changes in technology always influence accounting processes. There was a time when all cash inflows involved literal cash, but now electronic transfers of funds are commonplace, even in small businesses. The introduction of affordable, hand held devices to complete electronic transfers has changed how small businesses operate on a day to day basis.

EFTPOS
Electronic Funds Transfer at Point of Sale

EFT receipt
document issued when an EFT payment has been made

EFTPOS systems allow businesses to record **EFT receipts** of cash, provide a copy of the transaction to customers, and have funds deposited directly into their business bank account. An added bonus is that the business handles less cash in carrying out its daily banking.

An EFTPOS terminal accepts both debit and credit cards, with no risk to the business owner. However, when a credit card is used, the business owner isn't actually making credit available to a customer; such a sale is as good as cash to the business owner. The bank is responsible for chasing up the amount owing via its usual credit card practices, but the business that makes the sale will usually have the cash in its account within 24 hours.

Paywave systems may bring us closer to a cashless society.

The introduction of 'tap and go' or 'paywave' technology has seen a significant increase in the use of both debit and credit cards. Some people see this as evidence that we are moving towards a cashless society. The documentation relating to EFTPOS transactions is therefore even more important for business owners, as it will provide most of the information they need about their business's sales activity.

FIGURE 3.5 **A typical receipt from an electronic transfer of funds**

ACME BANK
MB Costuming Supplies
1004 Hoffmans Road
Essendon 3040

CUSTOMER COPY
Merchant number: 312103
Terminal number: XY2132

PURCHASE
DEBIT MasterCard 1355
Date/time: 26/02/23 11:57:30
Authorisation: 2419944

TOTAL: AUD $45.00

Figure 3.5 shows the details required by both the business and the customer, including:

- the name of the bank used by the business, which is linked to the EFTPOS terminal (ACME Bank)
- the name and address of the business making the sale (MB Costuming Supplies)

978 1 4202 3962 1

- identification numbers for the EFTPOS terminal (merchant number and terminal number)
- the last four digits of the card being used (1355)
- the date and time of the transaction (26 February 2023 at 11.57 a.m.)
- an authorisation number (2419944)
- the total dollar value of the transaction ($45 Australian, or AUD).

This receipt is a copy for the customer to keep for their records. The EFTPOS terminal also produces a copy for the business's records, which it should store for checking at a later date. Banks usually provide a summary of EFTPOS transactions, which can be printed on a daily basis by the terminal.

Cash payments

Traditional business practice was to always make cash payments by cheque. This method automatically provided the business with a permanent record of all its payments. The business's bankers could verify all payments made by cheque, so proof of payment could always be provided. The details of all cheques would be copied onto the cheque butt, which acted as the copy of the original document.

Cheques were once common but are now being phased out.

However, cheques are no longer commonly used in Australia, and are likely to be phased out entirely by the early 2020s. EFTPOS terminals and online payment systems have changed the way most businesses record both their sales and their payments. Electronic transfers of funds are now the most efficient way of paying suppliers. This has eliminated the use of cheques for almost all small business owners.

EFT payments will be listed on **bank statements**, which are usually prepared monthly. The business owner can easily check all transactions via these statements. They can also print or save a copy of any EFT payment at the time of payment if required.

bank statement document that summarises all cash transactions between a bank and its customer

3.3 CHECK YOUR UNDERSTANDING

WB PAGE 36

1. Why are business documents known as source documents?
2. Identify the two source documents used to provide evidence of cash transactions. Describe the nature of each type of transaction.
3. Describe two benefits, for a small business owner, of using an EFTPOS terminal.

EXAM SUCCESS
When recording from an invoice, always check the name of the business for which you're accounting. Remember, an invoice can be for a sale or a purchase – check which one is happening.

3.4 SOURCE DOCUMENTS FOR CREDIT TRANSACTIONS

Many businesses make credit available to their regular and trusted customers, which allows them to receive goods or services but pay for them later. Similarly, most trading businesses purchase their inventory on credit from their suppliers. Buying inventory for cash can drain the liquid resources of a business, while trade credit provides time for a business to sell some of its inventory before accounts payable have to be paid.

Source documents are needed to provide evidence of all such credit transactions.

INVOICES

invoice
document that shows the creation of a debt when a credit transaction has taken place

An **invoice** informs a credit customer of the total cost of the goods provided. When goods are purchased on credit, an invoice records the cost of the goods supplied. Invoices can be both received and issued by businesses when buying and selling on credit.

For example, MB Costuming Supplies buys inventory on credit from its suppliers and provides products on credit to its customers. In this case, the business receives an original invoice from its supplier whenever it purchases inventory items on a credit basis. If MB Costuming Supplies sells goods on credit, it issues an invoice to the account receivable and keeps a copy for accounting purposes. The invoice informs a customer of the amount owing for a sale made on credit.

Figure 3.6 shows an invoice received when MB Costuming Supplies purchased goods. Figure 3.7 shows an invoice issued by the same business when it provided goods on credit.

FIGURE 3.6 A typical purchase invoice

Central Tailoring Supplies
1804 Queensberry Street
North Melbourne VIC 3051

TAX INVOICE DF8124
ABN 22 233 344 455
Date: 12/3/23

To: MB Costuming Supplies
1004 Hoffmans Road, Essendon VIC 3040

Credit terms: 30 days

Description	Quantity	Unit price	Subtotal	GST	Total
Dressmaking scissors	12	$40.00	$480.00	$48.00	$528.00
10 mm clear buttons	100	$0.10	$10.00	$1.00	$11.00
Totals			$490.00	$49.00	$539.00

Total (excluding GST)	$490.00
Total GST payable	$49.00
Total amount payable (including GST)	$539.00

FIGURE 3.7 A typical sales invoice

MB Costuming Supplies
1004 Hoffmans Road
Essendon VIC 3040

TAX INVOICE 124
ABN 33 344 455 566

Date: 21/3/23

To: L Barnes
98 Charles Road, East Malvern VIC 3145

Description	Quantity	Unit price	Subtotal	GST	Total
1 m red nylon fabric	2	$10.00	$20.00	$2.00	$22.00
25 mm black rectangle buckle	6	$2.50	$15.00	$1.50	$16.50
Totals			$35.00	$3.50	$38.50

Credit terms: Strictly 30 days

Total (excluding GST)	$35.00
Total GST payable	$3.50
Total amount payable (including GST)	$38.50

3.4 CHECK YOUR UNDERSTANDING

WB PAGE 37

1 Why are some business documents pre-printed with sequential numbers?
2 Describe two different circumstances where an invoice may be used to provide data about financial transactions.
3 Explain how an invoice can be used by management to help meet the demands of the qualitative characteristic verifiability.

3.5 OTHER BUSINESS DOCUMENTS

An accounting system gathers most of its data from source documents such as invoices, payment forms and receipts. However, a business may use many other documents in its daily operations.

MEMOS AND INTERNAL TRANSACTIONS

Sometimes a business makes a transaction that doesn't involve another business or individual; it only affects the business and its owner. These are known as internal transactions, because they don't involve external parties. Typical internal transactions involve the owner contributing or withdrawing assets other than cash.

Contributions or withdrawals of cash can be recorded using the same documents the business uses to record receipts and payments. However, if an owner withdraws inventory from the business, none of the documents you have learnt about so far are suitable. Invoices, receipts and EFT records are all designed for specific purposes a withdrawal of inventory isn't one of them. Some businesses may also donate inventory items for advertising purposes, or simply as a charitable act.

The identity of the recipient of withdrawn inventory isn't important; the inventory given away must still be accounted for, just like any other financial event. The cost or benefit of inventory changes must be recorded, and a note written to verify donations made to organisations. As with all business documents, these notes called office memorandums, or **memos** can be used to provide verifiability.

memo
note used to record internal transactions

Memos are another example of source documents, used to provide evidence of internal transactions. Memos should be very simple in their design, as they are used to record a range of unusual transactions.

FIGURE 3.8 A typical memo

MB Costuming Supplies
Date: 25/3/23
Office memo: Withdrawal of one tailoring mini torso on stand
Cost price: $210
Memo No. 346 Signed: M Bateman

The memo in Figure 3.8 has all the details necessary to ensure that this internal transaction isn't overlooked. It shows the date of the transaction and includes a brief description of the event. It also provides evidence of the cost price of goods withdrawn by the owner. This information can be noted in the records of the business on the appropriate date.

STATEMENTS OF ACCOUNT

A business that provides credit to its customers must ensure that accounts are collected promptly. Many businesses allow their customers 30 days to settle their accounts; some may allow 60 or even 90 days.

statement of account business document issued to credit customers, summarising transactions between the customer and the supplier

As multiple business documents may move between the business and a customer in any given month, there is a need to regularly review the situation. A **statement of account** is used to summarise the transactions involving a credit customer over a given period (see Figure 3.9). Common business practice is to issue monthly statements of account.

The statement should show the balance owing at the start of the month, all purchases made during the month and any payments made in that time. The final figure on the monthly statement is the amount currently owing to the business.

A statement of account provides a compact summary of the month's transactions. It should also include references to any source documents relating to the transactions that have occurred.

FIGURE 3.9 A typical statement of account

Central Tailoring Supplies
1804 Queensberry Street
North Melbourne VIC 3051

Statement for: March 2023
Date: 31/3/23

In account with: MB Costuming Supplies
1004 Hoffmans Road
Essendon VIC 3040

Date	Details	Debits $	Credit $	Balance $
Mar 1	Balance			300.00
Mar 3	Payment thank you		300.00	0.00
Mar 12	Invoice DF8124	539.00		539.00
Mar 22	Invoice DF8168	56.00		595.00
	BALANCE AT END OF MONTH			595.00

ORDER FORMS

An **order form** is used to request that a supplier deliver goods or materials to a business (see Figure 3.10). However, placing an order isn't a financial transaction. Orders may be changed or even cancelled.

When the goods are delivered, a payment form may be completed or an invoice received, depending on whether it is a cash or a credit purchase. At this point, a transaction has occurred, and the payment form or invoice becomes the source document.

order form
business document that requests goods or services from a supplier

FIGURE 3.10 A typical order form

MB Costuming Supplies
1004 Hoffmans Road
Essendon VIC 3040

Order No. 980

Supplier: Central Tailoring Supplies
1804 Queensberry Street
North Melbourne VIC 3051

Please supply the following:

Quantity	Description
12	Dressmaking scissors
100	10 mm clear buttons

Delivery requirements: Urgent will pick up	Signed: M Bateman

QUOTATIONS

A **quotation**, commonly called a quote, is an estimate of costs provided to a potential customer (see Figure 3.11).

As with order forms, a quotation isn't a source document because a transaction hasn't yet occurred. The quotation may be rejected or need to be modified. The customer has to agree to the price, and the business has to supply the goods or perform the job, before a transaction has occurred.

quotation
business document that provides a potential customer with a cost estimate for goods or services

FIGURE 3.11 A typical quotation form

MB Costuming Supplies
1004 Hoffmans Road
Essendon VIC 3040

Quotation No. 380

Quote prepared for:
B Downe
321 Grieve St
North Coburg VIC 3058

Description
Supply of 40 metres of non-stretch cotton lace @ $5 per metre: $200.00 Delivered to above address

N.B. Quotation valid for 30 days only	Signed: M Bateman

DELIVERY DOCKET

A delivery docket is often included with a parcel of goods when a delivery is made by a supplier. The business or person buying the goods is often asked to sign a copy of the delivery docket, as this may be used as evidence that the goods have been delivered and accepted by the purchaser. Delivery dockets do not usually have cost prices stated. Rather, they simply state a description of the goods and the quantity being delivered. These details will be stated on the invoice later, along with the actual costs being charged. It should be noted that the details of a delivery docket are NOT recorded in the accounting system. This takes place when the invoice is issued and all costs, including GST, are formally advised.

SHIPPING CONFIRMATION

With many businesses now selling goods online, a shipping confirmation (also known as an order confirmation) is now in common use. Once an order has been placed online and the goods have been dispatched by the supplier, a shipping confirmation will be sent to the customer. This is usually done via email, with many businesses providing a confirmation number. In some cases, this number allows the customer to 'track' the process of their delivery. With so much business being done via online sales, the shipping confirmation has become an important part of business. However, this document is another example of a non recordable event. Just as an order is not recorded in the accounting system, neither is an order or shipping confirmation. The financial transaction will be recorded when cash changes hands, an invoice is issued or an EFT is completed.

3.5 CHECK YOUR UNDERSTANDING

WB PAGE 38

1 Describe the purpose of a statement of account.
2 State three different types of entries that may appear on a statement of account.
3 Explain why order forms and quotations don't result in a financial transaction for accounting purposes.

3.6 DOCUMENTS AND INFORMATION FLOW

The source documents described so far are common to almost all businesses. However, a trading business designs its accounting system to suit its own individual needs, and it may require other documents to be recorded and analysed. Other documents used may include cash register rolls, delivery dockets, employee pay slips and bank statements, all of which may supply valuable data for accounting purposes.

The distribution of data in a business, which then informs actions and decision making within the business, is known as **information flow**. Accounting systems are an integral part of information flow, as they record the business documents and generate the reports that keep information moving. Accountants need to be able to trace that information back to the original source documents in each case.

information flow the distribution of data through a business

AN INFORMATION FLOW EXAMPLE

Figure 3.12 shows one extended information flow that could occur in the day to day operations of a costuming retailer. The relevant business documents are shown in brackets where applicable. This simple example shows the vital nature of the information contained in business documentation.

FIGURE 3.12 **A typical information flow, including business documents**

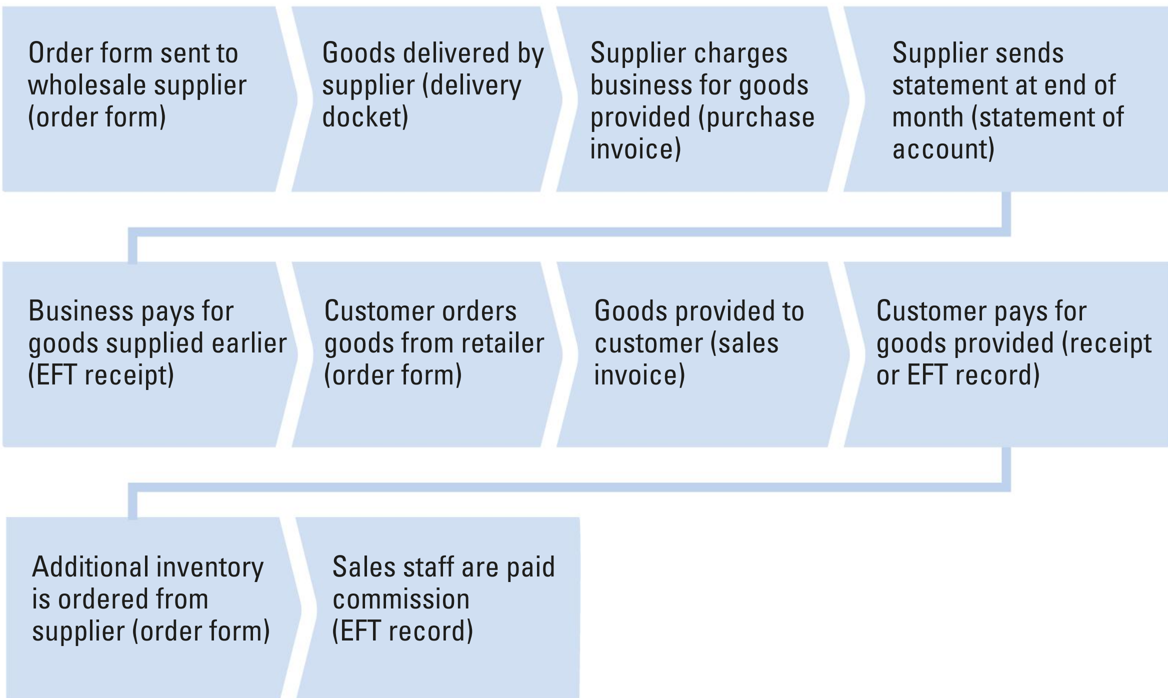


Figure 3.12 doesn't show all the possible information flows for this situation, but it does show the importance of business documents in providing information for management.

Documents will move in and out of a business on a continuous basis throughout a reporting period. As information will be transmitted between many business entities, it is vital that management follows an organised approach. This is the key to a successful accounting system.

OVERVIEW OF AN ACCOUNTING SYSTEM

Business documents create a great deal of paperwork, yet they are only the starting point of an accounting system. The actual processes within an accounting system trace the movement of raw data from business documents through to accounting reports.

A typical double entry accounting system has eight core processes or elements. You have already looked at the first of these source documents. You will learn about each of the remaining processes in upcoming chapters.

FIGURE 3.13 A double entry accounting system

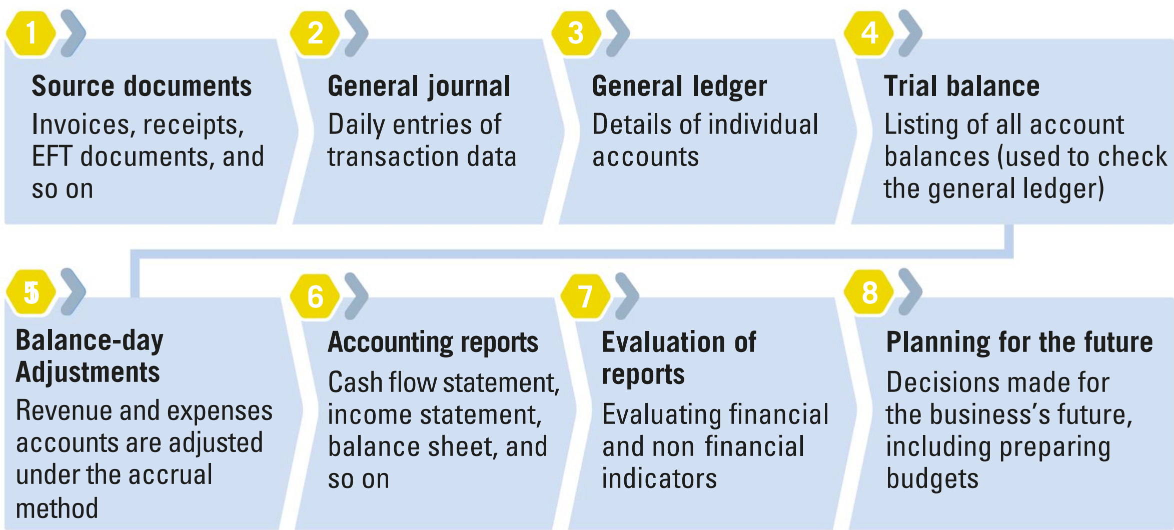


Figure 3.13 represents a typical double entry accounting system. Refer back to this flowchart as further topics are introduced, so that you can see how processes and elements fit into the overall accounting system.

1 Source documents

These are the original sources and records of accounting data, which you have already examined.

2 The general journal

This is sometimes known as a day book, as it is used on a daily basis to record the details of the data contained in source documents. The journal represents the start of the recording process. Ledgers, journals and day books may be physical books or (more commonly) digital records.

3 The general ledger

A ledger consists of many individual accounts, which are used to record the details of a particular item. For example, the Wages account contains the information relating to the wages expense for a period. The Cash at Bank account shows all the business's cash transactions.

The general ledger is where the process of double entry accounting occurs. For each transaction, entries are made in two accounts affected by the transaction. One of these entries is known as a debit entry, and the other as a credit entry. These entries contain information transferred from the journal to the ledger accounts. Raw data from documents is recorded first in the general journal, then posted to the ledger accounts.

4 Trial balance

The preparation of a trial balance is a checking procedure to verify that the double entry procedure has been carried out correctly. The trial balance lists the balances of all general ledger accounts. It allows you to check that the total of all the debit entries equals the total of all the credit entries.

5 Balance-day adjustments

Under the accrual method of accounting, profit is defined as revenue earned less expenses incurred. The information in a trial balance may not necessarily fall in line with this definition, as the ledger accounts sometimes only include revenue received and expenses paid.

Therefore, revenue and expense accounts are adjusted on the last day of the reporting period (i.e. balance day) so that they equal the revenue earned and expenses incurred.

6 Accounting reports

At the end of each reporting period, accounting reports are prepared to provide the owners and/or managers with the results of the period's activities.

7 Evaluation of reports

Once accounting reports have been prepared, the results must be evaluated and problem areas identified. The business's performance is usually measured by comparing results against several criteria.

Areas of evaluation will usually include the business's profitability, liquidity, efficiency and financial stability. You will learn more about these areas in later chapters.

8 Planning for the future

Management decisions should be made based on the current period's results. Budgets should be prepared in a variety of areas for future periods, to allow proper planning decisions to be made. Cash budgets and budgeted income statements should be prepared on a regular basis.

3.6 CHECK YOUR UNDERSTANDING

WB PAGE 38

1 What is a journal? What is its purpose?
2 Outline the function of a ledger.
3 Explain the link between source documents, a journal and ledger accounts.
4 The accounting process doesn't end when an income statement and a balance sheet are prepared. Describe two important processes that occur after these final reports have been completed.

3.7 COMPUTERISED ACCOUNTING SYSTEMS

The double entry accounting system described above is appropriate for a system where an accountant makes manual entries on a daily basis. However, most businesses, particularly larger ones, use computerised accounting systems, with commercial software packages that take care of all their GST requirements.

For many small business owners, computerised accounting isn't an option it's a necessity.

ADVANTAGES AND DISADVANTAGES

Computerised systems have several advantages:

- They are more accurate, because human error is removed.
- They can process data much faster than manual recording processes.
- They can store large amounts of financial information efficiently.

Computers are reliable and accurate, so they have become a valuable tool for management. However, the principles of double entry accounting still apply in a computerised system. The principles of the overall accounting system are basically the same for both manual and computerised recording methods.

There are two main disadvantages for small business owners considering an accounting software package:

- The cost of a computerised accounting system has decreased significantly, but it is still significantly more expensive than a manual system.
- The owner must have some computing skill and knowledge, and be willing to introduce software packages as part of their business's accounting system.

As with any business decision, the benefits of a computerised system should be weighed against the costs of installing and using it. A very small business might decide not to purchase a computerised system, because the volume of data wouldn't justify the extra expense. The larger the business, the more likely it is to benefit from a computerised system.

Computers have become essential accounting tools.

COMPUTERISED SYSTEMS IN PRACTICE

Commercial accounting packages all work on the same basic principle. The system takes the raw data from the source documents and records it in accounts using the double entry process. The output of the package acts as a trial balance, providing a summary of the period's transactions; some packages will also prepare the actual accounting reports.

A computerised package removes most of the need to record information manually. This means the owner can focus more on evaluating the information generated by the software.

Figure 3.1 (page 42) showed the basic accounting process in a manual system. This diagram can be modified to show the basic steps in a computerised system.

FIGURE 3.14 **The accounting process (computerised system)**

Collection of raw data	Data input	Processing of data by software	Output of information (reports)

Figure 3.14 highlights the fact that the computer is merely a tool used by management to generate the required accounting information.

It is important that the business clearly defines its requirements before it purchases and implements accounting software. Accounting packages are of little use if they don't produce the information the business requires. Software should also make the process of recording and reporting more efficient. If there is no obvious net benefit, the owner shouldn't introduce a computerised system.

CHOOSING AN ACCOUNTING PACKAGE

There are several commercial accounting packages now in common use; MoneyWorks, Mind Your Own Business (MYOB), QuickBooks and Xero are all popular in Australia. All of these packages are relatively cheap, fairly simple to use, and marketed as complete accounting systems for small businesses. They have been created for use on a personal computer or even on a tablet and are an ideal tool for a small business owner to keep track of a business's financial affairs.

Typical accounting programs can be used to:

- create business documents (order forms, invoices, statements, etc.)
- record receipts and payments
- record credit transactions
- record inventory movements
- prepare bank reconciliations
- record all GST transactions
- prepare accounting reports.

The aim of such programs isn't to drive accountants out of business. In fact, many accountants advise their clients to use such software so that the business keeps organised records. The programs provide a structure that the user must follow. A business owner is given reminders and checklists to ensure that all processes have been completed properly. At the end of the year, of course, they should seek advice regarding taxation from a qualified accountant.

For a small outlay, business owners can run accounting software that is comprehensive, accurate and capable of generating a wide range of reports.

3.7 CHECK YOUR UNDERSTANDING

WB PAGE 39

1. Identify three advantages of a computerised accounting system compared with a manual system.
2. Describe the four basic steps in a computerised accounting system.
3. Should all businesses prepare their accounting records and reports by computer? Explain your answer fully.

3 CHAPTER REVIEW

KEY CONTENT

- [3.1] The basic role of an accounting system is to record and report on financial transactions. Business documents are the starting point of the accounting process and provide the details of a business's transactions.
- [3.2] Almost all business documents require the 10% Goods and Services Tax to be tracked and calculated.
- [3.3] Source documents are core business documents that contain financial data. The most common source documents for cash transactions are receipts, which record cash inflow, and payment records, which record cash outflow.
- [3.4] The main source documents for credit transactions are invoices, which record either a sale or a purchase.
- [3.5] Other key source documents include memos, which record internal transactions, and statements of account, which summarise credit transactions over a period.
- [3.5] Businesses also generate and use other documents, such as order forms or quotations. However, these documents don't record transactions and may not be considered source documents by all accounting systems.
- [3.6] Accounting systems are vital to the distribution of data within a business, which is known as information flow.
- [3.6] The processes within an accounting system trace the movement of data from business documents through to accounting reports.
- [3.7] Most small businesses use computerised, rather than manual, accounting systems. The principles of the overall system are basically the same for both recording methods.

CHAPTER 3 EXERCISES

1 Business documents

WB PAGE 40

The following transactions relate to Anile's Auto Parts. For each transaction, indicate the business document used by the business.

Transaction

1 Charged a customer for a credit sale
2 Paid cash for spare parts
3 Received cash for goods sold
4 Sold goods via EFTPOS terminal
5 Purchased spare parts on credit
6 Paid monthly rent
7 Sent a bill to a customer for goods received
8 Paid accounts payable by EFT

2 Identifying documents

WB PAGE 41

Consider the following document, which was found in the offices of Ballarat Lighting.

BALLARAT LIGHTING
Shop 12 Henderson Road
Ballarat VIC 3350

No. 101

Supplier: Zang Electricals
84 Grieve Street
Northcote VIC 3070

Date: 5/4/23

Please supply the following

Quantity	Description
6	Tracey ceiling fans (with lights) product No. 34211
10	Calypso desk lamps model D321

Delivery required by 30/4/23	Signed: *Alan Pitson*

a What is the name of this document?

b Which business would have created this document?

c Will this document lead to the creation of other business documents in the future? Explain your answer fully.

d Describe the two fold effect that this document would have on the balance sheet of Ballarat Lighting.

3 Credit transactions

WB PAGE 41

The manager of Hernandez Handcrafted has the following document in his possession.

TOPLINE TIMBERYARD
Geelong Road
West Footscray VIC 3012

No. 24512
ABN 31 921 291 129
Date: 2/5/23

To: HERNANDEZ HANDCRAFTED
5 Charles Street, Hurstbridge VIC 3099

Terms: 30 days
TAX INVOICE

Quantity	Description	Cost	Sub-total	GST	Total
10	1000 × 100 × 50 mm treated pine	$9.00	$90.00	$9.00	$99.00
20	3-metre sleepers	$8.00	$160.00	$16.00	$176.00
Totals					$275.00

Total (excluding GST)	$250.00
Total GST payable	$25.00
Total of this Invoice (including GST)	$275.00

a What is the name of this document?

b What is the nature of the transaction shown in this document?

c Would Hernandez Handcrafted have created this document? Explain your answer.

d Explain what the note 'Terms: 30 days' means.

e Who has a GST debt to the ATO as a result of this transaction? Explain your answer fully.

f Describe the two fold effect this document has on the balance sheet of:

i Hernandez Handcrafted ii Topline Timberyard

4 Credit transactions

WB PAGE 42

Consider the following document.

AAA Stationery
9121 Flinders Street
East Melbourne 3002

No. 6572
ABN 37 217 771 178
Date: 4/2/23

Account name: City Cabs, 24 Spencer Avenue
Prahran VIC 3181

Terms: 30 days
TAX INVOICE

Quantity	Description	Cost	Sub total	GST	Total
5	Reams 80 gsm printer paper	$7.00	$35.00	$3.50	$38.50
20	A4 office pads	$1.50	$30.00	$3.00	$33.00
					$71.50

Total (excluding GST)	$65.00
Total GST payable	$6.50
Total of this Invoice (including GST)	$71.50

All accounts are net 30 days

a Which business would have:
   i created this document ii received this document?

b What type of document is this, and what is its purpose?

c What is the purpose of the number 6572 on this document?

d Explain how this document affects the balance sheet of AAA Stationery.

5 Cash transactions

WB PAGE 43

Ava's Aquarium Sales has a copy of the following document.

AVA'S AQUARIUM SALES
17 John Street
W amstown VIC 3016

ABN 04 213 984 618

No. 135

Date: 26/2/23

Received from: *B Mason*

The amount of: *Fifty dollars* $ *50.00*

For: *Payment on account No. 11022*

Signed: *A Sharon*

Thank you for your business

a What is the name of this source document?

b Explain why the amount is written in both words and numbers.

c A friend of Ava suggests that a computerised system could generate such documents. Explain to Ava two benefits of using a computer for such a process.

d Describe two disadvantages of introducing a computer into Ava's business.

6 Office memos

WB PAGE 44

Mara Brasco is the owner of Brasco's Barbequing. She has provided you with the following business documents.

BRASCO S BARBEQUING
Date: 22/2/23
Office memo: One twin grill: cost $550
One BBQ smoker: cost $150 (Son's birthday)
Memo No. 101 Signed: M Brasco

BRASCO S BARBEQUING
Date: 3/3/23
Office memo: Donation of twin grill w/ folding cart to Pascoe Vale Primary School for raffle prize
Cost price $690
Memo No. 102 Signed: M Brasco

a Describe the two transactions recorded on the two office memos.

b Explain why memos such as these are necessary.

c Explain the two fold effect of memo number 101 on the balance sheet of Brasco's Barbequing.

7 Identifying documents

WB PAGE 44

The following document was found in the offices of Point Cook Computers, a small business owned and operated by Brian Moloney.

POINT COOK COMPUTERS
999 AVIATION ROAD
POINT COOK 3030

ABN 21 546 434 379
Date: 30 June 2023

Statement for: Alessio & Associates
231 Geelong Road, Laverton VIC 3028

Date	Details	Debits $	Credit $	Balance $
1 Jun	Balance			540
8 Jun	Invoice 37282	430		970
15 Jun	Payment with thanks		540	430
24 Jun	Invoice 37314	560		990

a What is the name of this business document?

b Which business:

i created the document? **ii** received the document?

c In a balance sheet prepared by Brian Moloney, under what heading would you expect to find Alessio & Associates?

d Describe the nature of the transaction that occurred on 24 June.

e Explain the purpose of this document.

8 EFT transactions

WB PAGE 45

Jack Chrystie, the owner of Northern Speed Cycle, has provided the following business documents for your use.

EFT Rece pt No. **JA125112**	**Amount $2600**
From **Northern Speed Cycle**	Account: 04-546 8010 1956 **WESTERN BANK**
To **AXE Sports Wear**	Account: 099-404 1512 9125 **STATE BANK**
Tuesday 4 Apr 2023 11.05 a.m.	

a Describe the nature of the transaction evidenced by this document.

b Which common business document has been replaced by the above document? Explain your answer fully.

c With which bank does AXE Sports Wear do its banking?

d In a balance sheet prepared for Northern Speed Cycle, under which classification would you expect to find AXE Sports Wear? Justify your answer.

9 Identifying documents

WB PAGE 46

The following two documents have been generated by Valerie Horne, the owner of Fawkner Fashions.

ACME BANK
Fawkner Fashions
401 Douglas Avenue
Fawkner 3060

CUSTOMER COPY
Merchant number: A2130
Terminal number: 535

PURCHASE
DEBIT VISA 8231
Date/time: 5/3/23 15.52
Authorisation: 8382

TOTAL: AUD $68.00

ACME BANK
Fawkner Fashions
401 Douglas Avenue
Fawkner 3060

MERCHANT COPY
Merchant number: A2130
Terminal number: 535

PURCHASE
DEBIT VISA 8231
Date/time: 5/3/23 15.52
Authorisation: 8382

TOTAL: AUD $68.00

a What are the names of these two documents?

b Explain why Horne has generated the two documents shown, and explain the purpose of each of them.

CASE STUDY

WB PAGE 46

Lynne Gray has decided to establish a small business, trading as Bayside Barista Beans. She is unsure about a few organisational matters relating to the accounting needs of her business, and has asked you for advice.

She provides you with the following notes:

- A friend has advised Lynne to keep copies of all documents used in the day to day affairs of her business.
- She expects that most of her sales will be for cash, but occasionally she may sell on credit to local schools.
- She is considering seeing her bank to arrange an EFT terminal for her business.
- Several coffee bean suppliers will provide the inventory she plans to sell. Lynne expects all those suppliers to provide her with trade credit terms of 30 days.
- Similarly, she may extend credit terms to customers with a proven credit history.
- As most of her sales will be for cash, she anticipates always having cash in the register, so paying her expenses in cash won't be a problem. (There is a bank branch across the road from the shop.)

a Make a list of all the business documents that Lynne could reasonably expect to use in the operation of her new business. Beside each document name, briefly note its purpose.

b Which of the business documents you listed will run in sequential order, according to their document numbers?

c If Lynne makes a credit sale to a local cafe, name six different items that should appear on the document she issues to the customer.

d Lynne is considering using an EFT terminal. Explain to her the benefits of using EFT, rather than offering credit to her customers.

e Comment on Lynne's method of paying expenses using cash from the cash register of the business.

f Lynne's friend advises her that cash register rolls play two roles in accounting for a small business. Describe these two roles.

g Explain the link between business documents and the qualitative characteristics of accounting.

h Use a spreadsheet to design a tax invoice for Lynne's business that would satisfy the ATO in relation to its GST guidelines.

SPREADSHEET

ACCOUNTING IN THE REAL WORLD

WB PAGE 49

Accounting software packages are constantly being upgraded to suit the needs of small businesses. Go online and research the latest programs available in relation to computerised accounting.

a Make a list of five accounting packages available for small business owners.

b Write a brief description of each package, noting any unique features or advantages.

c Which package do you think would be the most effective and useful to you in your professional accounting future? Explain your answer.

CHAPTER CHECKLIST

Now that you have finished Chapter 3, double check your progress.

Are you ready for your Unit 3 assessment?

I have ...

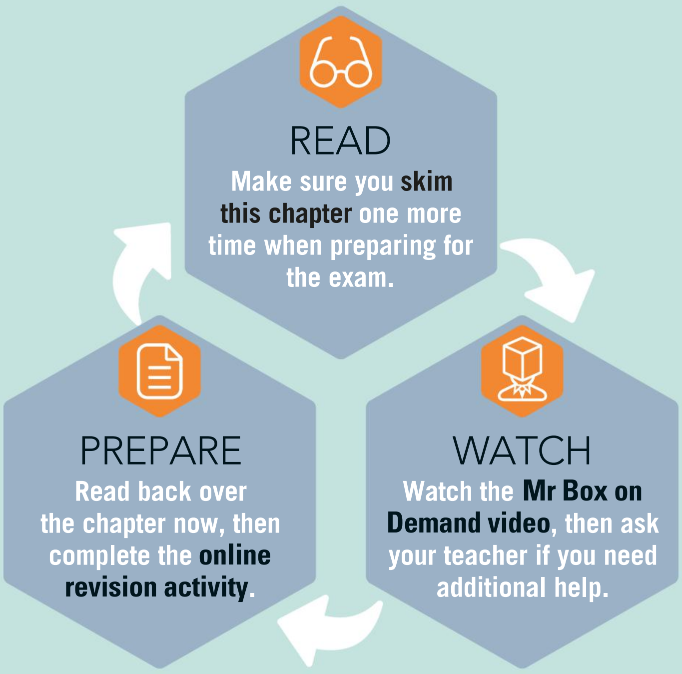
- completed all 'Check Your Understanding' questions
- completed all exercises
- completed all end of chapter activities
- handed in my workbook for marking.

I understand ...

- documents used by a business to record financial transactions
- the effect of transactions on the accounting reports.

I can ...

- use correct accounting terminology
- apply theoretical knowledge to simulated situations.



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4 DOUBLE ENTRY RECORDING: AN INTRODUCTION

In the last few chapters you have read mentions of 'double entry accounting' but what is it, and why is it useful for accountants working with small businesses?

In this chapter you will become familiar with the basic concepts of double entry accounting, before studying them further in later chapters.

LEARNING OBJECTIVES

By the end of this chapter, you will be able to:

- define 'double entry accounting' [4.1]
- state the rules of double entry for the different types of accounts [4.1]
- determine when a debit entry or a credit entry is required in a variety of accounts [4.1]
- prepare an analysis chart showing debits and credits for a variety of transactions [4.1]
- state the rules of double entry for assets, liabilities, owner's equity, revenues and expenses [4.2]

UNIT 3 – PROGRESS 1 2 3 4 5 6 7 8 9 10 11 12 13

4.1 Double entry accounting and the accounting equation

4.2 Double entry for revenues and expenses

Chapter review and exercises

978 1 4202 3962 1

4.1 DOUBLE ENTRY ACCOUNTING AND THE ACCOUNTING EQUATION

double entry accounting
accounting system in which two ledger entries, a debit and a credit, are made for each transaction

ledger account
financial record for all details of a particular item

general ledger
collection of ledger accounts in which double entry accounting is used

Chapter 2 introduced the concept of **double entry accounting**. You learnt there that, when a balance sheet is prepared following a financial transaction, two report items are affected by the same dollar amount. This is the essence of double entry accounting: *two* items are affected by every transaction.

However, it's not practical to prepare a new balance sheet after every transaction. Instead, accountants prepare a balance sheet at the end of each reporting period, while the transactions that occur during that period are recorded in **ledger accounts**. All of these ledger accounts are kept together and make up a record called the **general ledger**.

A ledger account is simply a financial record that relates to a particular area within the business. For example, the details relating to a business's wages would be recorded in the Wages account. When wages are paid in cash, the other half of the double entry would be recorded in the Cash at Bank account. If the business purchased a vehicle for cash, the details would be recorded in a Vehicles account and the Cash at Bank account.

FIGURE 4.1 Sample ledger accounts

Vehicle

Date	Cross-reference	$	Date	Cross-reference	$
1 Mar	Cash at bank	16 000			

Wages

Date	Cross-reference	$	Date	Cross-reference	$
4 Mar	Cash at bank	400			

Cash at bank

Date	Cross-reference	$	Date	Cross-reference	$
			1 Mar	Vehicles	16 000
			4 Mar	Wages	400

LEDGER ACCOUNTS

A ledger account entry has three parts, completed in the following order:

1. the date of the transaction
2. the name of the other account affected by the double entry (referred to as a cross reference)
3. the actual dollar value of the transaction.

As Figure 4.1 shows, for every transaction, there is an entry on the left side of one account and a corresponding entry on the right side of another account. This is the nature of double entry accounting: one debit entry and one credit entry for each financial transaction. The debit side is on the left side of a ledger account and the credit on the right side.

Ledger account

Date	Cross-reference	$	Date	Cross-reference	$
	DEBIT SIDE			CREDIT SIDE	

978 1 4202 3962 1

There are set rules as to whether an entry is a debit or a credit. The easiest way to learn these rules is to work from the basic format of a T form balance sheet:

BALANCE SHEET

ASSETS		LIABILITIES	
		OWNER'S EQUITY	

The format of the balance sheet shows the rules of double entry accounting. Assets appear on the left side of the report and are debit in nature. Liabilities and owner's equity are on the right side and are credit in nature.

Assets will usually have debit balances and are increased by debit entries. Liabilities and owner's equity accounts will usually have credit balances and are increased by credit entries.

The opposite is true if an account decreases. Assets are decreased with credits, and liabilities and owner's equity are decreased with debits (see Figure 4.2).

FIGURE 4.2 Rules for double entry recording (A, L, OE)

Account classification	Increased by	Decreased by
Assets	Debits	Credits
Liabilities	Credits	Debits
Owner's equity	Credits	Debits

RECORDING LEDGER ENTRIES

There is a simple, consistent process for recording entries in ledger accounts.

1. State the two ledger accounts affected by the financial transaction.
2. Classify the accounts according to their balance sheet classifications.
3. State whether the account is being increased or decreased.
4. By referring to the rules of debit and credit, state whether the accounts will have a debit or a credit entry.

You should follow these steps in sequence until you fully understand the rules of double entry.

EXAMPLE 4.1 **No GST to be recorded**

A business purchases a second-hand vehicle for cash.

1. Two ledger accounts are affected: Vehicle/Cash at Bank
2. Balance sheet classifications: asset/asset
3. Increase or decrease: increase/decrease
4. Debit or credit: debit/credit

There is one debit entry and one credit entry, so the rules of double entry are satisfied. The debit to the Vehicle account is required, because this account has to be increased. The business has paid cash for the vehicle, so the Cash at Bank account is decreased and assets are decreased by credit entries.

Purchasing a vehicle is recorded as two entries in the accounting system.

EXAMPLE 4.2 No GST to be recorded

A business takes out a loan.

1 Two ledger accounts are affected: Cash at Bank/Loan
2 Balance sheet classifications: asset/liability
3 Increase or decrease: increase/increase
4 Debit or credit: debit/credit

Both ledger accounts are increased by the transaction. The Cash at Bank account is increased because the business has received cash via the loan. The Loan account is increased, because the business now has a present obligation to another entity. However, one debit entry and one credit entry are still created by the transaction.

You should also get used to recording business transactions that include the GST.

EXAMPLE 4.3 GST to be recorded

A business buys a computer for $2000 cash, plus GST of $200.

In this case, three accounts will be affected by the transaction. You can use the same approach to determine the debits and credits required.

1 Three ledger accounts affected: Computer/Cash at Bank/GST Clearing
2 Balance sheet classifications: asset/asset/liability
3 Increase or decrease: increase/decrease/decrease
4 Debit or credit: debit/credit/debit

There are two debit entries and only one credit entry. However, once amounts are included, the entries must balance out. The Computer account is debited $2000, GST Clearing is debited $200 and Cash at Bank is credited $2200. The two debit entries therefore equal the same dollar amount as the credit entry to Cash at Bank.

'GST Clearing' is the usual title of the account used to keep track of all GST transactions. Although it is generally viewed as a liability account, it may have either a credit balance (liability) or a debit balance (asset).

ANALYSIS CHARTS

Rather than constantly repeating these four steps, an **analysis chart** can be used for the double entry process. It provides an analysis of a financial transaction, which identifies the double entry for ledger accounts.

analysis chart table used to break a transaction down into debit and credit entries

The analysis chart in Figure 4.3 shows how to determine the double entry for a variety of financial transactions. In Figure 4.4, the actual ledger accounts are prepared, showing the double entry for each transaction.

Work through the analysis chart to check that you can make the correct double entry for each transaction.

FIGURE 4.3 Analysis chart

Transaction	Account names	Classification	Increase/ Decrease	Debit/Credit
1 The owner contributed $25 000 to commence business	Cash at bank Capital	Asset Owner's equity	Increase Increase	Debit Credit
2 The business took out a loan for $10 000	Cash at bank Loan	Asset Liability	Increase Increase	Debit Credit
3 Purchased a computer for $3000 cash, plus GST of $300	Computer GST clearing Cash at bank	Asset Liability Asset	Increase Decrease Decrease	Debit Debit Credit
4 Made a loan repayment of $1000	Loan Cash at bank	Liability Asset	Decrease Decrease	Debit Credit
5 Bought inventory for $600 cash, plus GST of $60	Inventory GST clearing Cash at bank	Asset Liability Asset	Increase Decrease Decrease	Debit Debit Credit
6 The owner contributed an office desk worth $800 to the business	Office furniture Capital	Asset Owner's equity	Increase Increase	Debit Credit

Notice that dates aren't used in Figure 4.4. Instead, the numbers where the date is usually recorded refer to the number of the transaction in the analysis chart (Figure 4.3).

Note the entries that involve the GST. As there are two debits, the credit in the Cash at Bank account can be combined to show both accounts (e.g. Computer/GST Clearing).

The Inventory account is used to record all movements of inventory in and out of the business during a period. All purchases of inventory are recorded on the debit side of the account.

EXAM SUCCESS
Always use full titles in the cross-reference column. GST clearing must be written – not just GST or GST Cl.

FIGURE 4.4 General ledger accounts

Cash at bank

Date	Cross-reference	$	Date	Cross-reference	$
1	Capital	25 000	3	Computer/GST clearing	3 300
2	Loan	10 000	4	Loan	1 000
			5	Inventory/GST clearing	660

Capital

Date	Cross-reference	$	Date	Cross-reference	$
			1	Cash at bank	25 000
			6	Office furniture	800

Loan

Date	Cross-reference	$	Date	Cross-reference	$
4	Cash at bank	1 000	2	Cash at bank	10 000

Computer

Date	Cross-reference	$	Date	Cross-reference	$
3	Cash at bank	3 000			

GST clearing

Date	Cross-reference	$	Date	Cross-reference	$
3	Cash at bank	300			
5	Cash at bank	60			

Inventory

Date	Cross-reference	$	Date	Cross-reference	$
5	Cash at bank	600			

Office furniture

Date	Cross-reference	$	Date	Cross-reference	$
6	Capital	800			

4.1 CHECK YOUR UNDERSTANDING

WB PAGE 51

1 Explain what is involved in the process of double entry accounting.
2 Distinguish between a ledger and an account.
3 State the three parts of an entry in a ledger account.
4 Describe how to determine the rules of debit and credit from the accounting equation.

4.2 DOUBLE ENTRY FOR REVENUES AND EXPENSES

Having applied the rules of double entry to the three classifications of A, L and OE, we can expand them to include the other two types of ledger accounts: revenues and expenses.

- **Revenues** (R) usually cause an increase in assets, leading to an increase in owner's equity.
- **Expenses** (E) usually cause a decrease in assets, leading to a decrease in owner's equity.

As revenue increases owner's equity, revenue accounts are credit in nature and are increased by credit entries. Expenses have the opposite effect on owner's equity: they are debit in nature and are increased by debit entries.

Figure 4.5 shows the table in Figure 4.2 expanded to include revenues and expenses.

FIGURE 4.5 **Expanded rules for double entry (A, L, OE, R, E)**

Account classification	Increased by	Decreased by
Assets	Debits	Credits
Liabilities	Credits	Debits
Owner's equity	Credits	Debits
Revenues	Credits	Debits
Expenses	Debits	Credits

Revenues increase assets and equity, while expenses decrease them.

The steps for determining the double entry for a transaction can also be followed for transactions involving revenues and expenses. The analysis chart in Figure 4.6 has been created using the same procedures, but this time some of the transactions involve revenue and expense items.

FIGURE 4.6 Analysis chart (including revenue and expenses)

Transaction	Account names	Classification	Increase/ Decrease	Debit/Credit
1 The owner contributed $40 000 to commence the business	Cash at bank Capital	Asset Owner's equity	Increase Increase	Debit Credit
2 Bought inventory for $5000 cash, plus GST of $500	Inventory GST clearing Cash at bank	Asset Liability Asset	Increase Decrease Decrease	Debit Debit Credit
3 Bought office furniture on credit for $3000, plus GST of $300	Office furniture GST clearing Accounts payable	Asset Liability Liability	Increase Decrease Increase	Debit Debit Credit
4 Sold goods for $1000 cash, plus GST of $100 (cost price of goods sold $600)	Cash at bank GST clearing Sales **and** Cost of sales Inventory	Asset Liability Revenue Expense Asset	Increase Increase Increase Increase Decrease	Debit Credit Credit **and** Debit Credit
5 Paid accounts payable for office furniture bought previously, $3300	Accounts payable Cash at bank	Liability Asset	Decrease Decrease	Debit Credit
6 Sold goods on credit for $2000, plus GST of $200 (cost of sales $800)	Accounts receivable GST clearing Sales **and** Cost of sales Inventory	Asset Liability Revenue Expense Asset	Increase Increase Increase Increase Decrease	Debit Credit Credit **and** Debit Credit
7 Paid wages $500	Wages Cash at bank	Expense Asset	Increase Decrease	Debit Credit

Figure 4.7 shows how the double entries in Figure 4.6 would be recorded in ledger accounts.

FIGURE 4.7 General ledger accounts

Cash at bank

Date	Cross-reference	$	Date	Cross-reference	$
1	Capital	40 000	2	Inventory/GST clearing	5 500
4	Sales/GST clearing	1 100	5	Accounts payable	3 300
			7	Wages	500

Capital

Date	Cross-reference	$	Date	Cross-reference	$
			1	Cash at bank	40 000

Accounts payable

Date	Cross-reference	$	Date	Cross-reference	$
5	Cash at bank	3 300	3	Office furniture/GST clearing	3 300

Office furniture

Date	Cross-reference	$	Date	Cross-reference	$
3	Accounts payable	3 000			

Sales

Date	Cross-reference	$	Date	Cross-reference	$
			4	Cash at bank	1 000
			6	Accounts receivable	2 000

Office furniture

Date	Cross-reference	$	Date	Cross-reference	$
3	Accounts payable	2 000			

Inventory

Date	Cross-reference	$	Date	Cross-reference	$
2	Cash at bank	5 000	4	Cost of sales	600
			6	Cost of sales	800

Cost of sales

Date	Cross-reference	$	Date	Cross-reference	$
4	Inventory	600			
6	Inventory	800			

GST clearing

Date	Cross-reference	$	Date	Cross-reference	$
2	Cash at bank	500	4	Cash at bank	100
3	Accounts payable	300	6	Accounts receivable	200

Accounts receivable

Date	Cross-reference	$	Date	Cross-reference	$
6	Sales/GST clearing	2 200			

Wages

Date	Cross-reference	$	Date	Cross-reference	$
7	Cash at bank	500			

THE INVENTORY CONTROL

Whenever a business purchases inventory, it must make a debit entry to the Inventory account, as it represents an increase in an asset. The corresponding credit will go in either the Cash at Bank account (for a cash purchase) or in the Accounts Payable account (for a credit purchase).

When goods are sold, the economic resource of inventory has been sacrificed and so the asset becomes an expense. The double entry required is a debit to the Cost of Sales account (to increase the expense) and a credit to Inventory (to decrease the asset).

Note that one double entry is required to record a purchase of inventory, but *two* double entries are necessary whenever inventory is sold. This is because there are actually two events:

- the business earns revenue through the sale of goods.
- the business sacrifices inventory (an asset) to earn its sales.

The first double entry is made to record the selling price of the goods to the customer by the business. The benefit gained by the business is the value the goods are sold for; this must be credited to the revenue account (i.e. the Sales account). The Cash at Bank account is debited in the event of a cash sale, or the Accounts Receivable account is debited if the sale was on credit. Regardless of whether it is a cash or a credit sale, the GST Clearing account must always be credited when a sale is made.

When inventory is purchased, the asset is increased with a debit entry.

The second entry records the cost price of the goods sold. Some of the business's inventory has been sacrificed in order to earn revenue, so the cost of the goods sold is transferred from the Inventory account (an asset) to the Cost of Sales account (an expense).

This matches the definitions of the accounting elements; revenue results in an increase in an asset (Cash at Bank or Accounts Receivables) and the relevant expense is the current asset being used up or consumed to make the sale (Cost of Sales).

Entries may be made in ledger accounts (see Figure 4.7) because the transactions occur during a reporting period.

The rules of double entry remain consistent for all businesses, regardless of their size or structure.

4.2 CHECK YOUR UNDERSTANDING

WB PAGE 52

1 Identify a transaction that would bring about the following changes to a business's accounts:
   a an increase in an asset account/an increase in a liability account
   b an increase in an asset account/a decrease in another asset account
   c a decrease in an asset account/a decrease in a liability account
   d an increase in an asset account/an increase in an owner's equity account.

2 Explain how the rules of debit and credit for revenue and expense accounts can be traced back to their relationship with owner's equity.

3 When a trading business sells goods, there are actually two transactions: one at cost price and one at selling price. Explain fully the entries required for each of these two transactions.

4 CHAPTER REVIEW

KEY CONTENT

- [4.1] Double entry accounting notes that two items are affected by every transaction, and so two accounts need to be updated one with a debit and one with a credit. The transactions that occur during each reporting period are recorded in ledger accounts. These individual accounts, when combined, map up the general ledger.
- [4.1] The three elements of a ledger entry are the date of the transaction, a cross reference to the other account affected by the transaction, and the dollar value of the transaction. Assets appear on the left side of the ledger and are debits. Liabilities and owner's equity are on the right side and are credits.
- [4.1] Analysis charts provide an analysis of a financial transaction, leading to the double entry being determined for ledger accounts.
- [4.2] Expenses and revenues can also be recorded in double entry accounting. Revenue accounts are increased by credit entries; expense accounts are increased by debit entries.
- [4.2] Whenever inventory is purchased, a debit entry is made to the Inventory account and a credit goes into the Cash at Bank or Accounts Payable account. When goods are sold, a debit is made to the Cost of Sales account and a credit goes to Inventory.

CHAPTER 4 EXERCISES

1 Analysis chart A, L & OE

WB PAGE 53 SPREADSHEET

Prepare an analysis chart (A, L, OE only) showing the double entries that result from the following transactions for Simpson's Stationery:

- The owner contributed cash to the business.
- Purchased office furniture for cash, including GST.
- Bought a computer on credit from OK Computer Centre, including GST.
- Borrowed money from NAB.
- Bought inventory on credit from Wholesale Stationers (plus GST).
- Made a repayment to OK Computer Centre by EFT.
- The owner contributed an office desk to the business.

2 Analysis chart – all accounts

WB PAGE 53 SPREADSHEET

The following transactions are from the business of Games Galaxy. Prepare an analysis chart (all accounts) showing the double entry for each transaction.

- Paid monthly rent, plus GST.
- Bought goods for cash, plus GST.
- Issued a quote to supply a cafe with eight board games, including charging GST.
- Sold goods for cash, plus GST.

- Bought a laptop on credit from Office Needs, plus GST.
- Bought inventory items on credit, plus GST.
- Paid for advertising using the bank's EFT facility (including GST).
- Issued invoices to customers, including GST, for goods provided.
- Sent an order form to supplier for goods required.
- Paid accounts payable an amount owing for inventory purchases.
- Received money from accounts receivable for goods supplied last month.
- Paid insurance premium for year, including GST.

SPREADSHEET

3 Analysis chart with dollar values

WB PAGE 54

Anthony Taranto is the owner of Taranto's Guitars, a trading business that sells both acoustic and electric guitars. He has provided a summary of transactions relating to his business:

- Taranto banked $150 000 cash in a business account to start his business.
- Paid the first month's rent: $9000, plus GST of $900.
- Bought shop fittings for cash: $22 000, plus $2200 GST.
- Purchased guitars for $34 000 on credit from Teknik Music Co. (charged $3400 GST).
- Sold guitars that cost $4000 for $7900 EFT, plus GST of $790.
- Paid for one month's advertising: $1800, plus GST of $180.
- Borrowed cash from NAB: $15 000.
- Sold guitars on credit for $3080, including GST of $280, to DJ Touma (cost price of sale $1600).
- Purchased inventory for cash from Shaggy Music Company: $6600, plus GST of $660.
- Repaid NAB $2000.
- Paid wages for the first fortnight of operations: $1800 using EFT.
- Cash sales of inventory totalled $4400, including GST of $400 (cost price $2200).
- Purchased inventory from Morrison Music on credit for $13 400, plus GST of $1340.

Prepare an analysis chart for these transactions, including the two double entries required whenever inventory is sold by the business.

SPREADSHEET

4 Analysis chart with dollar values

WB PAGE 55

Luisa Lipsia owns and operates Perfect Perfumes, an online business that sells perfumes and other cosmetics. She provides the following summary of transactions relating to her business:

- Lipsia banked $106 000 cash to start the business.
- Purchased inventory on credit from Exotic Cosmetics for $16 500, including GST of $1500.
- Bought office equipment for cash for $14 000, plus GST.
- Paid for advertising in local papers: $500 cash, plus GST.
- Sold goods for $1100, including GST for cash. Goods were sold at a mark up of 100%.
- Made a credit sale for $2000, plus GST of $200. The cost price of the goods sold was $980.
- Paid Exotic Cosmetics the full amount owing by making an EFT.
- Bought goods for cash: $500 plus GST.
- Took out a loan from ACME Bank for $5000, with 5% interest on the loan to be paid yearly.
- Lipsia contributed two filing cabinets to the business, valued at $200.

- Sold goods for cash for $900, plus GST. The goods sold had a mark up of 50% on cost price.
- Collected $500 from accounts receivable via EFT.

Prepare an analysis chart for these transactions, including the two double entries required whenever inventory is sold by the business.

5 Analysis of ledger accounts

WB PAGE 56

The following accounts appeared in the general ledger of St Albans Auto Parts, a small business owned and operated by Mitch Harding.

Cash at bank

		$			$
1 Apr	Capital	30 000	2 Apr	Fittings/GST clearing	16 500
4 Apr	Sales/GST clearing	660	3 Apr	Inventory/GST clearing	3 300

Capital – Harding

		$			$
			1 Apr	Cash at bank	30 000

Fittings

		$			$
2 Apr	Cash at bank	15 000			

GST clearing

		$			$
2 Apr	Cash at bank	1 500	4 Apr	Cash at bank	60
3 Apr	Cash at bank	300	6 Apr	Accounts receivable	10
5 Apr	Accounts payable	40			

Inventory

		$			$
3 Apr	Cash at bank	3 000	4 Apr	Cost of sales	300
5 Apr	Accounts payable	400	6 Apr	Cost of sales	60

Cost of sales

		$			$
4 Apr	Inventory	300			
6 Apr	Inventory	60			

Sales

		$			$
			4 Apr	Cash at bank	600
			6 Apr	Accounts receivable	100

Accounts payable

		$			$
			5 Apr	Inventory/GST clearing	440

Accounts receivable

		$			$
6 Apr	Sales/GST clearing	110			

In chronological order, list the transactions that resulted in the double entries in these ledger accounts.

6 Analysis of ledger accounts

WB PAGE 56

Cara Johnson is the owner of Caulfield Cosplay, a small business that specialises in creating costumes for all occasions.

Cash at bank

		$			$
1 May	Capital	190 000	3 May	Display equipment/ GST clearing	22 000
5 May	Sales/GST clearing	1 320	4 May	Advertising GST clearing	660

Capital – Johnson

		$			$
			1 May	Cash at bank	190 000

Display equipment

		$			$
3 May	Cash at bank	20 000			

GST clearing

		$			$
2 May	Accounts payable	1 500	5 May	Cash at bank	120
3 May	Cash at bank	2 000	6 May	Accounts receivable	140
4 May	Cash at bank	60			

Inventory

		$			$
2 May	Accounts payable	15 000	5 May	Cost of sales	500
			6 May	Cost of sales	600

Advertising

		$			$
4 May	Cash at bank	600			

Sales

		$			$
			5 May	Cash at bank	1 200
			6 May	Accounts receivable	1 400

Cost of Sales

		$			$
5 May	Inventory	500			
6 May	Inventory	600			

Accounts payable

		$			$
			2 May	Inventory/GST clearing	16 500

Accounts receivable

		$			$
6 May	Sales/GST clearing	1 540			

a State the transactions that resulted in the double entries in these ledger accounts.

b Consider the GST account shown. On 6 May, does this business owe GST to the ATO, or would it be owed a refund? Explain your answer fully.

ETHICAL CONSIDERATIONS

WB PAGE 57

For several years the owner of Galaxy Games, Daniel Galati, has provided plastic carry bags to his customers. The bags are in distinctive colours, with the name of the business clearly displayed. As Daniel's business is in a large regional shopping centre, he's always believed that the bags are a great advertising tool for his shop.

Some of Daniel's customers have commented to him recently on the environmental impact of plastic bags and he wants to explore possible alternatives. His choices include:

- continue to use the plastic bags.
- reduce use of the plastic bags by charging his customers $1 per bag
- replace the plastic bags with recycled paper bags
- discontinue the use of bags completely, and encourage customers to bring their own bag.

Daniel has asked for your advice, including the possible consequences of his decision.

Write a report, discussing the possible implications of each choice. Your report should include a recommendation to Daniel, justifying your decision.

CHAPTER CHECKLIST

Now that you have finished Chapter 4, double check your progress.
Are you ready for your Unit 3 assessment?

I have ...

- completed all 'Check Your Understanding' questions
- completed all exercises
- completed all end of chapter activities
- handed in my workbook for marking.

I understand ...

- characteristics of the General Ledger with T form accounts for manual recording
- the GST clearing account
- ethical considerations when making business decisions in relation to operating a trading business.

I can ...

- identify and manually record financial data in the General Journal and General Ledger
- use ICT to record financial data in the General Journal and General Ledger.

READ

Make sure you **skim this chapter** one more time when preparing for the exam.

WATCH

Watch the **Mr Box on Demand video**, then ask your teacher if you need additional help.

PREPARE

Read back over the chapter now, then complete the **online revision activity**.

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5 THE GENERAL JOURNAL AND GENERAL LEDGER

In Chapter 4 you learnt how to create individual ledger accounts, which record all the transactions for a particular account in a reporting period. A trading business will have multiple accounts, and these make up the general ledger.

Similarly, all of those transactions are recorded on business documents, and the details of those individual documents are recorded in a general journal. In this chapter you will learn about the purpose of the general journal and the general ledger, and how to create and use them.

LEARNING OBJECTIVES

By the end of this chapter, you will be able to:

- explain the purpose of a general journal **[5.1]**
- record financial transactions in the general journal **[5.1]**
- explain the purpose of the general ledger **[5.1]**
- record financial transactions in general ledger T accounts **[5.1]**
- formally balance a T form ledger account **[5.2]**
- describe the purpose of a trial balance and prepare one from a general ledger **[5.3]**
- use a trial balance to identify particular recording errors **[5.3]**
- outline the errors a trial balance won't detect **[5.3]**
- record drawings in the general ledger and show their effect on owner's equity **[5.5]**

UNIT 3 – PROGRESS 1 2 3 4 5 6 7 8 9 10 11 12 13

5.1 From documents to ledger accounts

5.2 Balancing ledger accounts

5.3 The role of the trial balance

5.4 Extended example: from transactions to balance sheet

5.5 Accounting for drawings

Chapter review

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5.1 FROM DOCUMENTS TO LEDGER ACCOUNTS

Now that you are familiar with the basic rules of debits and credits in ledger accounts, you are ready to learn how to record transactions in a formal double entry system.

The full system of double entry accounting was shown as a flow diagram in Chapter 3 (Figure 3.13). Part of that diagram is shown in Figure 5.1 to remind you of the steps involved.

FIGURE 5.1 The start of double entry recording

1 **Source documents** Invoices, receipts, EFT documents, and so on

2 **General journal** Daily entries of transaction data

3 **General ledger** Details of individual accounts

4 **Trial balance** Listing of all account balances (used to check the general ledger)

Financial transactions are recorded on business documents. These documents are issued and received as part of the day to day activities of the business. It is important that the details of all documents are recorded daily. This is the purpose of the general journal, which is sometimes known as a day book. (Remember that journals and ledgers can be physical or digital, despite their names.)

The debit and credit entries required when a document is issued or received are made in the general journal first. The journal records all the details of the transaction. These details include four key items:

- the names of the accounts affected by the transaction
- the dollar amounts involved
- a description of the transaction
- the document number used to provide all the above details.

Consider the general journal entry in Figure 5.2, which shows the result of a business owner contributing $100 000 on 1 March to commence their business. The evidence of this transaction was provided by Memo 001.

EXAM SUCCESS
When making multiple entries in a general journal, always check that the total debits equal the total credits.

FIGURE 5.2 General journal entry to commence business

Date	Details	Dr	Cr
1 Mar	Cash at bank	100 000	
	Capital		100 000
	Cash contribution by owner to commence business (Memo 001)		

The two accounts affected by the transaction

The date of the transaction

The narration, which explains the nature of the transaction

The debit and credit entries

Regarding the four key items:

1 As the owner has contributed cash to the business, the two accounts affected are Cash at Bank and Capital.

2 The dollar amount involved was $100 000, which results in an increase in Cash at Bank (an entry in the debit column) and in Capital (an entry in the credit column).

3 A brief description of the event is provided below the account names. This is known as a narration.

4 The narration includes a document number, which in this case is Memo 001.

Two traditions are usually followed when preparing a general journal entry:

- The debit entries are shown first, followed by the credit entries.
- The credit entries in a general journal are indented to the right.

For example, in Figure 5.2 the title for 'Capital' is indented in the details section.

The amount of detail recorded in the general journal cannot be included in the general ledger accounts, as they would become difficult to read. Instead, once the general journal entries have been compiled for a day, the debits and credits are posted to the general ledger accounts.

'Posting' means transferring the details of debits and credits to the ledger accounts so that the accounts are updated accurately and in a timely manner.

The general journal entry in Figure 5.2 would result in the following general ledger accounts.

Cash at bank

Date	Cross-reference	$	Date	Cross-reference	$
1 Mar	Capital	100000			

Capital

Date	Cross-reference	$	Date	Cross-reference	$
			1 Mar	Cash at bank	100000

The Cash at Bank account has increased with a debit entry, and the cross reference noted is the Capital account. This cross reference helps to explain the nature of the cash receipt the owner has injected capital into the business.

Similarly, the Capital account has a credit entry, with the cross reference being Cash at Bank. The cross reference shows which asset was contributed by the owner (cash).

As a reporting period continues, day to day events are entered into the general journal and then posted to ledger accounts. This means that all the transactions of the business will end up being noted in the general journal, along with the relevant document numbers.

The general ledger is then updated on a regular basis (preferably daily), so that *relevant* financial information is available to the owner or manager in a *timely* manner, satisfying two of the key qualitative characteristics of accounting.

DON'T!
You will lose exam marks if you use incorrect titles in either the general journal or ledger accounts. Make sure you use the full title for each item. Don't abbreviate!

The general ledger should be updated on a daily basis.

RECORDING IN THE GENERAL JOURNAL

Following on from the previous example, this business owner conducts several more transactions at the start of March.

Mar	1	The owner contributed $100 000 to commence business (Memo 001)
	2	Paid rent for the first month: $4000, plus GST of $400 (EFT rec. 4501)
	3	Borrowed $20 000 over five years from Acme Bank (EFT)
	4	Bought inventory on credit for $33 000, including GST of $3000 (Invoice 546)
	5	Sold goods for cash: $2000, plus GST of $200 (cost price of sale $1000) (Receipt 5001)

The general journal entries resulting from these five transactions are shown in Figure 5.3.

EXAM SUCCESS
Dates in accounting records must be in chronological order. You will lose marks if you record the transactions out of order.

FIGURE 5.3 General journal entries

Date	Details	Dr	Cr
1 Mar	Cash at bank	100 000	
	Capital		100 000
	Cash contribution by owner to commence business (Memo 001)		
2 Mar	Rent	4 000	
	GST clearing	400	
	Cash at bank		4 400
	Paid rent (EFT rec. 4501)		
3 Mar	Cash at bank	20 000	
	Loan – ACME Bank		20 000
	Five-year loan taken out (EFT)		
4 Mar	Inventory	30 000	
	GST clearing	3 000	
	Accounts payable		33 000
	Bought inventory on credit (Invoice 546)		
5 Mar	Cost of sales	1 000	
	Inventory		1 000
	Cash at bank	2 200	
	Sales		2 000
	GST clearing		200
	Sold goods for cash (Receipt 5001)		

The general journal is extremely flexible; it can be used to record any type of transaction. It relies on the user knowing the rules of double entry accounting, and simply states (as shown above) the debits and credits for every transaction.

Once the entries are prepared in the general journal, they are then posted to the relevant ledger accounts, as shown in Figure 5.4.

FIGURE 5.4 General ledger entries

Cash at bank

Date	Cross-reference	$	Date	Cross-reference	$
1 Mar	Capital	100000	2 Mar	Rent/GST clearing	4 400
3 Mar	Loan – ACME Bank	20000			
5 Mar	Sales/GST clearing	2 200			

Capital

Date	Cross-reference	$	Date	Cross-reference	$
			1 Mar	Cash at bank	100000

Rent

Date	Cross-reference	$	Date	Cross-reference	$
2 Mar	Cash at bank	4000			

GST clearing

Date	Cross-reference	$	Date	Cross-reference	$
2 Mar	Cash at bank	400	5 Mar	Cash at bank	200
4 Mar	Accounts payable	3000			

Loan – Acme Bank

Date	Cross-reference	$	Date	Cross-reference	$
			3 Mar	Cash at bank	20000

Inventory

Date	Cross-reference	$	Date	Cross-reference	$
4 Mar	Accounts payable	30000	5 Mar	Cost of sales	1000

Cost of sales

Date	Cross-reference	$	Date	Cross-reference	$
5 Mar	Inventory	1000			

Accounts payable

Date	Cross-reference	$	Date	Cross-reference	$
			4 Mar	Inventory/GST clearing	33000

Sales

Date	Cross-reference	$	Date	Cross-reference	$
			5 Mar	Cash at bank	2000

5.1 CHECK YOUR UNDERSTANDING

WB PAGE 59

1 Explain the purpose of the general journal.
2 Describe the purpose of a narration in a general journal entry.
3 Explain the link between the qualitative characteristics of accounting and the information in the general journal.

EXAM SUCCESS
When you're asked to explain something, don't just repeat the definition from the textbook. Explain it in your own words.

5.2 BALANCING LEDGER ACCOUNTS

Ledger accounts may contain debits and credits from many transactions. The balance of a particular account is the difference between the total debit entries and total credit entries in that account. If an account has debit entries totalling $10 000 and credit entries of $9000, the balance of the account is $1000 debit. An account with debits of $350 and credits of $400 would have a credit balance of $50.

balancing an account entering a missing figure on one side of a ledger account to bring it to the total on the other side

A formal process of **balancing an account** should be done if it has more than one entry. Accounts are balanced at the end of a reporting period (i.e. on balance day) to determine what is included in the balance sheet. When an account is balanced, the balancing procedure becomes part of the firm's permanent records.

Figure 5.5 shows the formal balancing of a Cash at Bank account, prepared for the month of March 2023.

FIGURE 5.5 **Balancing a ledger account**

Cash at bank

Date	Cross-reference	$	Date	Cross-reference	$
2023			2023		
1 Mar	Capital	50 000	2 Mar	Rent/GST clearing	1 100
6 Mar	Sales/GST clearing	1 100	9 Mar	Advertising/ GST clearing	440
12 Mar	Sales/GST clearing	2 200	14 Mar	Wages	1 800
18 Mar	Sales/GST clearing	2 200	26 Mar	Inventory/GST clearing	11 000
25 Mar	Loan	10 000	30 Mar	Insurance/GST clearing	660
29 Mar	Sales/GST clearing	5 500	31 Mar	Balance	56 000
		71 000			71 000
1 Apr	Balance	56 000			

This account is balanced as follows:

- The two sides of the ledger account are totalled, and the larger amount ($71 000) is written on *both* sides of the account.
- On the side with the lower total (the credit side, in this case), the difference between the two sides ($56 000) is entered as the balance.
- Once this balancing figure is entered, the two sides are now equal and the account is ruled off as balanced.
- The balancing figure was entered on the credit side, so it's carried down to the opposite side of the account. The Cash at Bank account now has a debit balance of $56 000.

Balancing an account means making sure both sides of the ledger add up to the same amount, with the balancing figure being carried forward to the new period.

The final balance is carried down on the last day of the reporting period   31 March, in this example. This amount would appear as a current asset in the firm's balance sheet for 31 March 2023. The balance in the ledger account is then ready for the new reporting period, and therefore is an opening balance as at 1 April 2023.

The procedure is exactly the same if an account has a credit balance; that is, the total credit entries exceed the total debits. The missing figure appears on the debit side and is carried down to the credit side of the account. Figure 5.6 shows a loan account (liability).

FIGURE 5.6 **Balancing a ledger account (credit balance)**

Loan

Date	Cross-reference	$	Date	Cross-reference	$
2023			2023		
31 Mar	Cash at bank	500	1 Jan	Balance	6000
30 Jun	Cash at bank	500			
30 Sep	Cash at bank	500			
31 Dec	Cash at bank	500			
31 Dec	Balance	4000			
		6000			6000
			2024		
			1 Jan	Balance	4000

This account shows $6000 owing as at 1 January 2024. Four quarterly repayments were made during the year, and the account was balanced at 31 December 2023 to show that a liability of $4000 still exists. This amount would be reported in the business's balance sheet at this date.

5.2 CHECK YOUR UNDERSTANDING

WB PAGE 60

1 If a general journal records debits and credits, why is it necessary to prepare general ledger accounts?
2 Explain why is it necessary to balance accounts at the end of a period.
3 For each of the following accounts, identify whether they would usually have a debit or a credit balance at the end of a period.
   a Loan from bank
   b Accounts receivable
   c Accounts payable
   d GST clearing

5.3 THE ROLE OF THE TRIAL BALANCE

trial balance
list of general ledger accounts with their balances; used to check that the total value of all debits equals the value of all credits

During a reporting period, there may be hundreds or thousands of transactions resulting in debits and credits in ledger accounts. With such a large amount of recording, errors sometimes occur. A **trial balance** can be prepared during a reporting period, as well as at the end, to identify errors in double entry recording. It lists all the general ledger accounts with their balances on a specific date.

Figure 5.7 shows an example of a trial balance for Modica's Motorbikes.

FIGURE 5.7 **Trial balance showing general ledger account balances**

MODICA'S MOTORBIKES: TRIAL BALANCE AS AT 30 JUNE 2023

	Dr	Cr
Accounts payable		1 000
Accounts receivable	2 000	
Advertising	1 000	
Capital		9 000
Cash at bank	2 000	
Cost of sales	4 000	
GST clearing		1 000
Inventory	8 000	
Sales		9 000
Wages	3 000	
	20 000	20 000

A trial balance is used to check that the total of all debit entries is equal to the total of all credit entries. It doesn't detect all errors only those where the debits don't equal the credits.

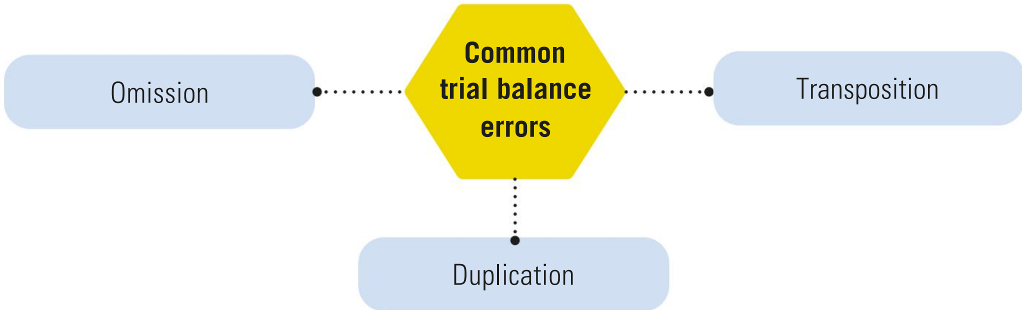
A trial balance won't detect the following errors:

- An incorrect amount is entered for both debit and credit (e.g. entering $98 in both accounts, instead of $89).
- A debit or credit is entered in the wrong account (e.g. a rent payment is debited to the Wages account).
- The debit and credit entries are reversed the account that should have been debited is credited, and vice versa.
- A transaction is omitted completely neither the debit nor the credit is entered.
- There are compensating errors two recording errors occur, but they counteract one another. The result is that the trial balance is in balance by sheer good luck!

A trial balance will detect some errors in this business's accounts, but not all.

None of these errors will be detected by preparing a trial balance, because they all comply with the rules of double entry a debit for every credit for each transaction. However, a trial balance should still be prepared regularly to detect errors that don't comply with the rules.

FIGURE 5.8 **Common trial balance errors**



DETECTING ERRORS THROUGH A TRIAL BALANCE

A trial balance won't balance if double entry accounting hasn't been completed properly. The cause of the problem must then be found. Errors occur for many reasons, but some common errors are easily detected (see Figure 5.8 and Table 5.1).

TABLE 5.1 **Finding and correcting trial balance errors**

Debit or credit omitted	When a trial balance doesn't balance, calculate the difference between the total debits and total credits. Check this figure against the transactions recorded for the period in the general journal. This will detect a single error where one debit or one credit has been omitted.
Duplication of a debit or credit	Two debits or two credits are sometimes made for one transaction. In this case, you can find the error by calculating the difference in the trial balance totals and dividing by two. For example, if wages of $2000 were paid, the correct double entry is a debit to Wages and a credit to Cash at Bank. If both accounts were debited, the total debits in the trial balance will be $4000 higher than the credit side, because the Cash at Bank account was debited when it should have been credited. Not only is the $2000 credit missing, but an incorrect $2000 debit was also made.
Transposing errors	You can locate a third type of error by dividing the difference in the trial balance totals by nine. This will identify a transposing error, where a dollar value has been incorrectly copied into a ledger account. For example, a figure of $197 is entered as $179 in one account. The difference in the trial balance due to this error would be $18, which is exactly divisible by nine.

Transposing errors are more likely to occur with larger numbers. For example, a figure of $12 540 may be entered as $12 450. The difference in this case is $90, which again is exactly divisible by nine.

These methods don't guarantee that all mistakes will be easily located in ledger accounts. If several recording errors are made, these techniques won't be useful.

If you use all three methods and still can't identify the error, there may be multiple recording errors. You will need to check each double entry against the transaction data.

ALTERNATIVE PRESENTATION OF A TRIAL BALANCE

There are two acceptable methods of displaying the ledger account information in a trial balance. The method used to prepare the trial balance in Figure 5.7 (page 88) is one standard approach.

The other method groups together all the accounts with debit balances and all the accounts with credit balances. This method, which uses a 'T' to distinguish between accounts with debit and credit balances, is shown in Figure 5.9. Both methods are acceptable, so use whichever you prefer.

FIGURE 5.9 T-format trial balance

MODICA'S MOTORBIKES: TRIAL BALANCE AS AT 30 JUNE 2023

	$		$
Accounts receivable	2000	Accounts payable	1000
Advertising	1000	Capital	9000
Cash at bank	2000	GST clearing	1000
Cost of sales	4000	Sales	9000
Inventory	8000		
Wages	3000		
	20000		20000

5.3 CHECK YOUR UNDERSTANDING

WB PAGE 60

1 What is a trial balance? What is its function?

2 'If a trial balance balances, the double entry process has been done perfectly.' Do you agree with this statement? Explain your answer.

3 Describe two types of errors that can be made in double entry accounting that won't cause a trial balance to not balance.

5.4 EXTENDED EXAMPLE: FROM TRANSACTIONS TO BALANCE SHEET

This extended example shows the system of recording transactions in the general journal, posting the entries to general ledger accounts, then preparing a trial balance and accounting reports.

The following transactions take place during the month of March 2023. They all relate to Fuller Furniture, a small business owned and operated by Harrison Fuller.

The transactions are entered into the business's general ledger and a trial balance is prepared as at 31 March 2023. From the trial balance, an income statement and balance sheet are then prepared.

FULLER FURNITURE: TRANSACTIONS

Mar	1	Fuller deposited $80 000 in a separate bank account to commence the business
	2	Purchased inventory for cash: $10 000, plus GST of $1000
	3	Purchased a delivery van: $15 000 cash, plus GST of $1500
	4	Paid rent for the first month: $1500, plus GST of $150
	6	Paid advertising: $500, plus GST of $50
	8	Purchased inventory on credit from Better Furniture $1200, plus GST of $120
	11	Cash sales made to customers: $3000, plus GST of $300 (cost price $1500)
	17	Charged D Colaco $500, plus GST of $50, for bar stools sold on credit (cost price $300)
	19	Paid postage: $100, plus GST of $10
	21	Received from cash clients: $800 for sales, plus GST of $80 (cost price $400)
	24	Invoiced P Connop $500, plus GST of $50 for recliner chair (cost price $200)
	25	Received $550 from D Colaco on account
	28	Received $900, plus GST of $90, from cash clients (cost price $450)
	29	Paid advertising $500, plus GST of $50
	30	Paid Better Furniture $200
	31	Paid monthly petrol account: $150, plus GST of $15

FULLER FURNITURE: GENERAL JOURNAL

Date	Details	Dr	Cr
1 Mar	Cash at bank	80 000	
	Capital		80 000
	Cash contribution by owner to commence business		
2 Mar	Inventory	10 000	
	GST clearing	1 000	
	Cash at bank		11 000
	Bought inventory for cash		
3 Mar	Delivery van	15 000	
	GST clearing	1 500	
	Cash at bank		16 500
	Bought delivery van for cash		
4 Mar	Rent	1 500	

	GST clearing	150	
	Cash at bank		1 650
	Paid rent		
6 Mar	Advertising	500	
	GST clearing	50	
	Cash at bank		550
	Paid advertising		
8 Mar	Inventory	1 200	
	GST clearing	120	
	Accounts payable – Better Furniture		1 320
	Bought inventory on credit		
11 Mar	Cost of sales	1 500	
	Inventory		1 500
	Cash at bank	3 300	
	Sales		3 000
	GST clearing		300
	Sold goods for cash		
17 Mar	Cost of sales	300	
	Inventory		300
	Accounts receivable – D Colaco	550	
	Sales		500
	GST clearing		50
	Sold goods on credit		
19 Mar	Postage	100	
	GST clearing	10	
	Cash at bank		110
	Paid postage		
21 Mar	Cost of sales	400	
	Inventory		400
	Cash at bank	880	
	Sales		800
	GST clearing		80
	Sold goods for cash		
24 Mar	Cost of sales	250	
	Inventory		250
	Accounts receivable – S Connop	660	
	Sales		600
	GST clearing		60
	Sold goods on credit		
25 Mar	Cash at bank	550	
	Accounts receivable – D Colaco		550
	Cash received on account		
28 Mar	Cost of sales	450	
	Inventory		450
	Cash at bank	990	

	Sales		900
	GST clearing		90
	Sold goods for cash		
29 Mar	Advertising	500	
	GST clearing	50	
	Cash at bank		550
	Paid advertising		
30 Mar	Accounts payable – Better Furniture	200	
	Cash at bank		200
	Cash paid on account		
31 Mar	Petrol	150	
	GST clearing	15	
	Cash at bank		165
	Paid petrol		

Once all the transactions for March are recorded in the general journal, they are posted to the general ledger accounts.

FULLER FRAMES: GENERAL LEDGER

Cash at bank

Date	Cross-reference	$	Date	Cross-reference	$
2023			2023		
1 Mar	Capital	80 000	2 Mar	Inventory/GST clearing	11 000
11 Mar	Sales/GST clearing	3 300	3 Mar	Delivery van/ GST clearing	16 500
21 Mar	Sales/GST clearing	880	4 Mar	Rent/GST clearing	1 650
25 Mar	Accounts receivable – D Colaco	550	6 Mar	Advertising/ GST clearing	550
28 Mar	Sales/GST clearing	990	19 Mar	Postage/GST clearing	110
			29 Mar	Advertising/ GST clearing	550
			30 Mar	Accounts payable – Better Furniture	200
			31 Mar	Petrol/GST clearing	165
			31 Mar	Balance	54 995
		85 720			85 720
1 Apr	Balance	54 995			

Capital

Date	Cross-reference	$	Date	Cross-reference	$
			1 Mar	Cash at bank	80 000

Inventory

Date	Cross-reference	$	Date	Cross-reference	$
2 Mar	Cash at bank	10 000	11 Mar	Cost of sales	1 500
8 Mar	Accounts payable – Better Furniture	1 200	17 Mar	Cost of sales	300
			21 Mar	Cost of sales	400
			24 Mar	Cost of sales	250

			28 Mar	Cost of sales	450
			31 Mar	Balance	8 300
		11 200			11 200
1 Apr	Balance	8 300			

Cost of sales

Date	Cross-reference	$	Date	Cross-reference	$
11 Mar	Cost of sales	1 500			
17 Mar	Cost of sales	300			
21 Mar	Cost of sales	400			
24 Mar	Cost of sales	250			
28 Mar	Cost of sales	450	31 Mar	Balance	2 900
		2 900			2 900
1 Apr	Balance	2 900			

GST clearing

Date	Cross-reference	$	Date	Cross-reference	$
2 Mar	Cash at bank	1 000	11 Mar	Cash at bank	300
3 Mar	Cash at bank	1 500	17 Mar	Accounts receivable – D Colaco	50
4 Mar	Cash at bank	150	21 Mar	Cash at bank	80
6 Mar	Cash at bank	50	24 Mar	Accounts receivable – S Connop	60
8 Mar	Accounts payable – Better Furniture	120	28 Mar	Cash at bank	90
19 Mar	Cash at bank	10			
29 Mar	Cash at bank	50			
31 Mar	Cash at bank	15	31 Mar	Balance	2 315
		2 895			2 895
1 Apr	Balance	2 315			

Delivery van

Date	Cross-reference	$	Date	Cross-reference	$
3 Mar	Cash at bank	15 000			

Rent

Date	Cross-reference	$	Date	Cross-reference	$
4 Mar	Cash at bank	1 500			

Advertising

Date	Cross-reference	$	Date	Cross-reference	$
6 Mar	Cash at bank	500			
29 Mar	Cash at bank	500	31 Mar	Balance	1 000
		1 000			1 000
1 Apr	Balance	1 000			

Accounts payable – Better Furniture

Date	Cross-reference	$	Date	Cross-reference	$
30 Mar	Cash at bank	200	8 Mar	Inventory/GST clearing	1 320
31 Mar		1 120			

		1 320			1 320
			1 Apr	Balance	1 120

Sales

Date	Cross-reference	$	Date	Cross-reference	$
			11 Mar	Cash at bank	3 000
			17 Mar	Accounts receivable – D Colaco	500
			21 Mar	Cash at bank	800
			24 Mar	Accounts receivable – P Connop	600
31 Mar	Balance	5 800	28 Mar	Bank	900
		5 800			5 800
			1 Apr	Balance	5 800

Accounts receivable – D Colaco

Date	Cross-reference	$	Date	Cross-reference	$
17 Mar	Sales/GST clearing	550	25 Mar	Cash at bank	550

Accounts receivable – S Connop

Date	Cross-reference	$	Date	Cross-reference	$
24 Mar	Sales/GST clearing	660			

Postage

Date	Cross-reference	$	Date	Cross-reference	$
19 Mar	Cash at bank	100			

Petrol

Date	Cross-reference	$	Date	Cross-reference	$
31 Mar	Cash at bank	150			

EXAM SUCCESS
When recording GST, always remember that if you're buying something, GST will be debited: if you're selling, GST will be credited.

The general ledger accounts above have been balanced and the balances of all accounts are now available to prepare the trial balance. Note how the balance of 'Accounts receivable D Colaco' is zero as of 31 March, as the total debits are exactly equal to the total credits, so that account is no longer listed in the trial balance.

FULLER FURNITURE: TRIAL BALANCE AS AT 30 JUNE 2023

	$		$
Cash at bank	54 995	Capital	80 000
Inventory	8 300	Accounts payable – Better Furniture	1 120
Cost of sales	2 900	Sales	5 800
GST clearing	2 315		
Delivery van	15 000		
Rent	1 500		
Advertising	1 000		
Accounts receivable – S Connop	660		
Postage	100		
Petrol	150		
	86 920		86 920

EXAM SUCCESS
If you are asked for totals in the exam, a mark will be deducted if you don't provide them.

The total debit entries equal the total credits, so the trial balance balances.

The double entry process has been done correctly, so the accounting reports can now be prepared. Of the five types of accounts used in the general ledger (A, L, OE, R, E), two are used for the income statement (R, E) and the other three are used for the balance sheet (A, L, OE).

As profit equals revenue less expenses, these items are used to prepare the income statement. This leaves the accounts that make up the accounting equation: A = L + OE.

FULLER FURNITURE: INCOME STATEMENT FOR MONTH ENDED 31 MARCH 2023

	$	$
Sales		5 800
Less: Cost of sales		2 900
Gross profit		2 900
Less: Other expenses		
Rent	1 500	
Advertising	1 000	
Postage	100	
Petrol	150	2 750
Net profit		150

FULLER FURNITURE: BALANCE SHEET AS AT 31 MARCH 2023

Assets *Current assets*	$	$	**Liabilities** *Current liabilities*	$	$
Cash at bank	54 995		Accounts payable – Better Furniture		1 120
Inventory	8 300				
GST clearing	2 315		**Owner's equity**		
Accounts receivable – S Connop	660	66 270	Capital	80 000	
Non-current assets			Net profit	150	80 150
Delivery van		15 000			
		81 270			81 270

5.4 CHECK YOUR UNDERSTANDING

WB PAGE 61

1 Put the following processes of an accounting system into the correct order:
- income statement
- source documents
- ledger accounts
- general journal
- balance sheet
- trial balance.

2 Using the information in the balance sheet above, comment on the liquidity of this business, taking into account the values of current assets and liabilities.

3 Would you be satisfied with the profit earned if you were the business owner? Explain your answer fully.

5.5 ACCOUNTING FOR DRAWINGS

Drawings occur when the owner of the business withdraws assets for personal use. The most common asset withdrawn is cash.

drawings withdrawal of assets by the proprietor of a business

Drawings are classified within the owner's equity account, but they are the opposite of capital and negative in nature. They require an entry opposite to that made when an owner puts capital into the business. When an owner withdraws an asset, the asset account involved will be credited, with the debit entry being made in a Drawings account.

A cash withdrawal would be recorded as follows:

Cash at bank

Date	Cross-reference	$	Date	Cross-reference	$
			10 Jan	Drawings	500

Drawings

Date	Cross-reference	$	Date	Cross-reference	$
10 Jan	Cash at bank	500			

At the end of a reporting period, the balance of the Drawings account is treated as a negative figure under the owner's equity section of the balance sheet.

For example, if the Capital account had a balance of $50 000, the profit earned for the year was $20 000 and the drawings during the period were $10 000, the owner's equity would be calculated and reported as follows.

BALANCE SHEET (EXTRACT)

Owner's equity	$	$	$
Capital	50 000		
Net profit	20 000	70 000	
Less: Drawings		10 000	60 000

Inventory records must be updated whenever a purchase or sale is made.

5.5 CHECK YOUR UNDERSTANDING

WB PAGE 62

1 Describe the function of a 'drawings' account.
2 How are drawings classified – as A, L, OE, R or E? Explain your answer.
3 A business owner earns a profit of $50 000 this period, but withdraws $90 000 in cash in the same period. Explain the potential impact this may have on the business.

5 CHAPTER REVIEW

KEY CONTENT

- **[5.1]** The general journal records all the key details of a transaction. The journal entry should show the accounts affected, the dollar amounts and the reference numbers of all related documents, and contain a brief description of the transaction.
- **[5.1]** Once the general journal entries have been compiled, the debits and credits are posted (transferred) to the general ledger accounts.
- **[5.2]** Following the core principle of double entry accounting, each transaction from the general journal should be recorded in at least two ledger accounts one for credits and one for corresponding debits.
- **[5.3]** Ledger accounts may contain debits and credits from many transactions. The balance of an account is the difference between the total debit entries and the total credit entries.
- **[5.3]** Accounts should be balanced at the end of a reporting period. Balancing involves entering a missing figure on one side of a ledger account to bring it to the total on the other side.
- **[5.3]** Preparing a trial balance during a reporting period helps to detect errors in double entry recording. A trial balance is used to check that the total of all debit entries is equal to the total of all credit entries.
- **[5.5]** Drawings occur when the owner of the business withdraws assets for personal use. They require an entry opposite to that made when an owner puts capital into the business.

CHAPTER 5 EXERCISES

SPREADSHEET

1 Preparing the general journal

WB PAGE 63

Nik Brudenell is the owner of Dreamy Daze Music Store. In his first week of trading, the following transactions took place.

Apr	1	Brudenell deposited $120 000 to commence the business (Receipt 601)
	2	Paid rent of $1200, plus GST of $120 (EFT rec. 401)
	3	Purchased shop fittings from Seddon Office Furniture on credit. Total cost was $17 600, including GST (Invoice 2711)
	4	Bought inventory for cash $10 000, plus GST of $1000 (EFT rec. 402)
	5	Purchased inventory on credit from Top 40 Music: $5000, plus GST (Invoice 989)

a Enter the above transactions into the general journal of Dreamy Daze Music Store.

b Prepare the Cash at Bank and GST Clearing general ledger accounts, including the relevant entries from the general journal.

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2 Preparing the general journal

WB PAGE 64 SPREADSHEET

Dave Congdon sells motorcycle parts in his business, trading under the name of DC Bikes. On 1 March 2023, the following account balances existed:

- Cash at Bank $12 000
- Inventory $52 000
- Accounts Receivable $9800
- Accounts Payable $5400
- GST Clearing $1200 Cr
- Capital $67 200.

The following transactions took place in the first week of March 2023.

Mar	1	Paid advertising $440, including GST
	2	Sold goods on credit for $4000, plus GST (cost price $2200)
	3	Took out a loan from NBA $10 000
	4	Received cash from accounts receivable via EFT $2800
	5	Cash sales of $3500, plus GST (cost of sales $1700)
	6	Paid accounts payable via EFT $2400
	7	Paid insurance $670, plus GST

a Prepare general journal entries to record the above transactions. (Narrations are not required.)

b Prepare the following ledger accounts, including the relevant transactions from your general journal: Cash at Bank, Inventory, Cost of Sales and GST Clearing.

c Balance the four ledger accounts prepared in part **b**.

3 General journal to ledger accounts

WB PAGE 66 SPREADSHEET

Emma Robinson is the owner of Ambient Audio. The following transactions occurred in her first week of operations in 2023.

May	1	Robinson deposited $145 000 in a separate bank account to set up the business (Memo 501)
		Purchased office furniture on credit from Commercial Furniture for $5200, plus GST of $520 (Invoice 3829)
	2	Bought shop fittings for cash $16 500 (including GST of $1500) (EFT rec. 301) and paid the first month's rent $8000, plus GST of $800 (EFT rec. 302)
	3	Purchased inventory on credit for $25 000, plus GST of $2500 (Invoice 1919)
	4	Cash sales $9000, plus GST of $900 (cost price $5000) (EFT summary), and paid advertising of $600, plus GST of $60 (EFT rec. 303)
	5	Issued an invoice for $4800, plus GST of $480, to Swinburne University for goods provided (cost price $2400) (Invoice 001)
	6	Cash sales $1540, including GST of $140 (cost price $700) (EFT summary)
	7	Paid Commercial Furniture $2000 (EFT rec. 304), and made cash sales of $2000, plus GST of $200 (cost price $1100) (EFT summary)
		Bought inventory for cash $4000, plus GST $400 (EFT rec. 305)

a Enter the transactions into the general journal of Ambient Audio.

b Prepare all general ledger accounts by posting all entries from your general journal.

c Prepare a trial balance as at 7 May 2023.

SPREADSHEET

4 General journal to ledger accounts

WB PAGE 70

The following transactions relate to the business of Betty's Boutique:

Jun	1	B Rubble deposited $150 000 to commence the business
		Purchased the business premises for $720 000, paying $120 000 cash with the balance being financed by a loan from NAB Finance
	3	Bought inventory for $15 000 cash, plus GST of $1500, and office equipment for $4500 cash, plus GST of $450
	4	Purchased $18 000 worth of inventory on credit from Classic Clothes and was charged GST of $1800
	5	Sold goods for cash $4200, plus GST of $420 (cost price of goods sold $1900)
	6	Paid wages of $450
	7	Invoiced clients for credit sales $5800 and charged them GST of $580 (cost price $2500)

a Prepare general journal entries for the above transactions. (Narrations are not required.)

b Post your general journal entries to the general ledger accounts and balance the accounts to determine their balances as at 7 June 2023.

c Prepare a trial balance as at 7 June 2023.

SPREADSHEET

5 Analysis of the general journal

WB PAGE 74

Nick Smith operates a small business, Cake Craze, selling gourmet cupcakes and doughnuts. He has provided the following extract from his general journal for the month of June 2023.

GENERAL JOURNAL

Date	Details	Dr	Cr
2 Jun	Computer	2000	
	Capital		2000
4 Jun	Inventory	6000	
	GST clearing	600	
	Cash at bank		6 600
6 Jun	Office furniture	5000	
	GST clearing	500	
	Accounts payable		5500
8 Jun	Advertising	400	
	GST clearing	40	
	Cash at bank		440
10 Jun	Cash at bank	220	
	GST clearing		20
	Sales		200
	Cost of sales	100	
	Inventory		100
12 Jun	Inventory	5 400	
	GST clearing	540	
	Accounts payable		5 940
14 Jun	Cost of sales	1 500	
	Inventory		1 500

	Accounts receivable	3 300	
	Sales		3000
	GST clearing		300
16 Jun	Cleaning of premises	100	
	GST clearing	10	
	Cash at bank		110

At 1 June 2023, the following account balances were noted:

- Cash at Bank $4300 debit
- Inventory $35 400 debit
- GST Clearing $3200 credit.

a Describe the transactions that have resulted in each of the journal entries shown.

b Prepare the relevant entries in the following general ledger accounts and balance them at the end of June 2023: Cash at Bank, Inventory and GST Clearing.

6 Analysis of ledger accounts

WB PAGE 75

The following accounts appeared in the general ledger of Armadale Auto Parts, a small business owned and operated by Karen Rivalland.

Cash at bank

		$			$
1 Jun	Capital	30000	2 Jun	Fittings/GST clearing	16500
4 Jun	Sales/GST clearing	660	3 Jun	Inventory/GST clearing	3 300

Capital

		$			$
			1 Jun	Cash at bank	30000

Fittings

		$			$
2 Jun	Cash at bank	15000			

GST clearing

		$			$
2 Jun	Cash at bank	1 500	4 Jun	Cash at bank	60
3 Jun	Cash at bank	300	6 Jun	Accounts receivable	10
5 Jun	Accounts payable	40			

Inventory

		$			$
3 Jun	Cash at bank	3000	4 Jun	Cost of sales	300
5 Jun	Accounts payable	400	6 Jun	Cost of sales	60

Cost of sales

		$			$
4 Jun	Inventory	300			
6 Jun	Inventory	60			

Sales

		$			$
			4 Jun	Cash at bank	600
			6 Jun	Accounts receivable	100

Accounts payable

		$			$
			5 Jun	Inventory/GST clearing	440

Accounts receivable

		$			$
6 Jun	Sales/GST clearing	110			

In chronological order, list the transactions that resulted in the double entries in the above ledger accounts.

7 Detecting errors in a trial balance

WB PAGE 76

The following errors were made in recording transactions in general ledger accounts.

- a A debit to Wages of $500 was recorded as a debit to Insurance of $500.
- b A $600 credit to Repair Fees was recorded as a debit to Repair Fees.
- c A debit of $164 to Advertising was recorded as a debit of $146 to Advertising.
- d A receipt of $50 interest was recorded as a debit to Interest and a credit to Cash at Bank.
- e A cash purchase of inventory of $300 wasn't recorded in the books at all.
- f $324 received from accounts receivable was debited to Cash at Bank as $324 and credited to Accounts Receivable as $342.
- g A credit sale of goods for $200 was recorded as a cash sale. The cost of sales of $100 was recorded as a debit to Inventory and a credit to Cost of Sales.
- h A cash sale of $550, including GST of $50, was recorded as a debit to Cash at Bank $550, a debit to GST Clearing of $50 and a credit to Sales of $500.

For each error listed, state what difference there would be in the totals of a trial balance. Explain your answers.

SPREADSHEET

8 From documents to trial balance

WB PAGE 76

The documents shown below were found in the office of Vicky's Vacs, a small business that specialises in vacuum cleaners. The owner, Vicky Baron, still issues many hand written receipts and uses cheques to pay costs.

On 1 March 2023, the following account balances were available:

- Cash at Bank $2300
- Accounts Receivable Domestic Cleaning $100, Inventory: $25 000
- Accounts Payable Victorian Vacuum Cleaners $200
- GST Clearing $5000 (credit balance)
- Capital Baron $22 200.

Vicky's Vacs ABN 04 213 984 618 Receipt 101
Shop 1
Black Arcade TAX INVOICE
Melbourne VIC 3000

Date: 2 / 3 / 23
Received from: M. Kingsley
The amount of: Four hundred & forty dollars $ 440.00
For: Cash sale—Hoover model BG345 GST included $ 40.00
Signed: V. Baron Received with thanks

Vicky's Vacs
Shop 1
Black Arcade
Melbourne VIC 3000

ABN 04 213 984 618

Receipt 102

TAX INVOICE

Date: 7/3/23
Received from: P Lazzaro
The amount of: Two hundred & twenty dollars $ 220.00
For: Cash sale – Lark Standard GST included $ 20.00
Signed: V. Baron Received with thanks

HOOVER INDUSTRIES
82 Queens Avenue
North Melbourne 3051

TAX INVOICE A144

ABN 09 004 121 982

Date: 4/3/23
Terms: 30 days

To: *Vicky's Vacs*
Shop 1 Black Arcade
Melbourne VIC 3000

Description	Qty	Unit price	Subtotal	GST	Total
Hoover WQ12 cleaners	10	$150.00	$1 500.00	$150.00	$1 650.00
Totals			$1 500.00	$150.00	$1 650.00

Total (excluding GST)	$1 500.00
Total GST payable	$150.00
Total Amount Payable (including GST)	$1 650.00

Vicky's Vacs
Shop 1
Black Arcade
Melbourne VIC 3000

ABN 04 213 984 618

Receipt 103

TAX INVOICE

Date: 7/3/23
Received from: A Filardo
The amount of: Three hundred & thirty dollars $ 330.00
For: Cash sale – Lark Deluxe GST included $ 30.00
Signed: V. Baron Received with thanks

Your Bank

DATE: 12 / 3 / 23
Bal. b/f
This chq. $ 165
For: Advertising
$ 150
plus GST $ 15
Bal.
Chq. no. 9145

Your Bank

DATE: 13 / 3 / 23
Bal. b/f
This chq. $ 200
For: Wages
$ 200
plus GST $ —
Bal.
Chq. no. 9146

Vicky's Vacs ABN 04 213 984 618 Receipt 104
Shop 1
Black Arcade TAX INVOICE
Melbourne VIC 3000

Date: 16/3/23
Received from: J Ha
The amount of: Three hundred & thirty dollars $ 330.00
For: Cash sale – Hoover model WQ12 GST included $ 30.00
Signed: V. Baron Received with thanks

Vicky's Vacs ABN 04 213 984 618 Receipt 105
Shop 1
Black Arcade TAX INVOICE
Melbourne VIC 3000

Date: 19/3/23
Received from: A Erkihun
The amount of: Four hundred & forty dollars $ 440.00
For: Cash sale – Lark Deluxe GST included $ 40.00
Signed: V. Baron Received with thanks

Vicky's Vacs TAX INVOICE 432 ABN 04 213 984 618
Shop 1 Black Arcade
Horsham VIC3400 Date: 21/3/23
To: Hinton Hotel Terms: 30 days
999 Flinders St
Horsham VIC 3400

Description	Quantity	Unit price	Subtotal	GST	Total
Hoover WQ12 cleaners	6	$300.00	$1 800.00	$180.00	$1 980.00
Totals			$1 800.00	$180.00	$1 980.00

Total (excluding GST)	$1 800.00
Total GST payable	$180.00
Total Amount Payable (including GST)	$1 980.00

Your Bank

DATE: 23 / 3 / 23
Bal. b/f
This chq. $ 66
For: Stationery
$ 60
plus GST $ 6
Bal.
Chq. no. 9147

Your Bank

DATE: 26 / 3 / 23
Bal. b/f
This chq. $ 150
For: Wages
$ 150
plus GST $ —
Bal.
Chq. no. 9148

Additional information

It is Vicky's policy to double the cost price of all inventory items to determine selling prices. For example, an item that sells for $300 has a cost price of $150.

- **a** Using the source documents provided, enter the transactions relating to Vicky's Vacs in the general journal.
- **b** Enter the opening balances into the general ledger accounts and post the entries from the general journal prepared in question **a**.
- **c** Prepare a trial balance as at 31 March 2023.

9 Balance sheet to balance sheet

WB PAGE 81 SPREADSHEET

Lovejoy's Lava Lamps has been operating as a small business for a number of years. On 1 July 2023 the following assets and liabilities were in existence.

Assets	$	Liabilities	$
Cash at bank	4000	Accounts payable	1000
Accounts receivable	1 300	Loan from bank	12000
Inventory	26000	GST clearing	2000
Shop fittings	25000	**Owner's equity**	
		Capital – Lovejoy	?

During July 2023, the following transactions occurred.

July	2	Purchased inventory on credit $1 700, plus GST of $170
	3	Paid insurance $50, plus GST of $5 (for one month)
	4	Received from cash clients $880, including GST of $80 (cost of sales $350)
	5	Paid monthly loan repayment $500
	6	Received $600 from N Flanders – accounts receivable
	9	Cash sales $750, plus GST of $75 (cost of sales $350)
	10	Paid $100 for stationery, plus GST of $10
	11	Purchased new computer for $1650 cash (including GST of $150)
	12	Lovejoy withdrew $100 for personal use
	13	Received $1100 from cash sales, including GST of $100 (cost price $500)
	14	Paid fortnight's wages $650
	16	Paid accounts payable for inventory purchases from last month $600
		Sold goods for cash for $550, including GST of $50 (cost price $300)
		Cash sales of goods $1200, plus GST of $120 (cost price $450)
	19	Paid advertising account $180, plus GST of $18
	20	Received $660 from cash client, including GST of $60 (cost of sale $300)
	23	Sent out a quote for lamps for $1990 to Lunar Homes (including GST)
		Received $530 from cash customer, plus GST (cost price $160) and invoiced N Flanders for $550 for another credit sale, including GST (cost of sale $270)
	28	Paid fortnight's wages $650
	30	Banked cash sales of $1880, plus GST of $188 (cost of sales $1030)

- **a** Enter the transactions into the general journal for Lovejoy's Lava Lamps. (Narrations not needed.)
- **b** Calculate Lovejoy's capital figure as at 1 July 2023 and enter the opening balances into ledger accounts.
- **c** Enter the transactions into the general ledger of Lovejoy's Lava Lamps.
- **d** Formally balance the ledger accounts and extract a trial balance as at 31 July 2023.
- **e** Prepare an income statement for the month ended 31 July 2023.
- **f** Prepare a classified balance sheet as at 31 July 2023.

SPREADSHEET

10 Balance sheet to balance sheet

WB PAGE 89

Deckard's Drones had the following account balances in its general ledger on 1 August 2023.

	$		$
Cash at bank	1 200	Accounts payable	2 750
Accounts receivable	300	Loan – Nissan Finance	15 000
Inventory	43 800	GST clearing	3 000
Vehicle	38 000	Capital – Deckard	62 550

During August 2023, the following transactions occurred:

Aug	2	Cash sales $3200, plus GST of $320 (cost of sales $1500)
	3	Purchased goods on credit from Oz Electricals $5400, plus GST
	4	Paid for petrol $165, including GST
	5	Paid advertising account with local newspaper $140, plus GST of $14
	8	Received from cash clients $2860, including GST of $260 (cost of sales $1400)
		The owner withdrew $300 cash from the business
	10	Invoiced J Walker $385 for credit sales, including GST of $35 (cost price $170)
	11	Monthly insurance premium paid on vehicle $480, plus GST of $48
	12	J Beam paid $300 on account
		Paid for petrol $110, including GST of $10
	13	Purchased stationery for cash $70, plus GST
	16	Paid Oz Electricals $1500
	17	Arranged with the bank an overdraft limit of $10 000
	18	Received from cash customers $2800, plus GST of $280 (cost price $1500)
	19	Purchased petrol for cash $121, including GST of $11
	20	Inventory bought for cash $1800, plus GST of $180
	23	Cash clients paid a total of $1980, including GST of $180 (cost of sales $950)
	24	Loan repayment made to Nissan Finance $250
	25	Paid for petrol $99, including GST
	26	J Walker paid $100
	29	D Deckard withdrew cash for personal use $400
	30	Submitted a quote to supply two large drones to Altona College (selling price $1200 + $120 GST each, cost price $700 each)

a Enter the above transactions into the general journal for Deckard's Drones. Use one account for all accounts receivable and one account for all accounts payable.

b Enter the opening balances into the appropriate general ledger accounts and post the general journal entries to your accounts.

c Formally balance the ledger accounts and extract a trial balance as at 31 August 2023.

d Prepare an income statement for the month ended 31 August 2023.

e Prepare a classified balance sheet as at 31 August 2023.

CASE STUDY

WB PAGE 97 SPREADSHEET

Jakob Smith is the owner of Smith's Great Outdoors, a small business that specialises in backpacks, tents and camping equipment. Smith has produced the following trial balance at the end of the firm's reporting period.

Smith had some difficulty getting his trial balance to balance. His investigation into the accounts of the business revealed the following information.

- A credit sale of $3740, with GST of $374, was recorded as $3470 and GST of $347. The cost price of the sale was $1700; this was recorded as a debit to Inventory and a credit to Cost of Sales.
- A cash payment of $640 (plus GST of $64) for advertising was completely omitted from the ledger accounts of the business.
- Smith paid $540 insurance on his family home and made an EFT payment from the business bank account. As it was paid from the firm's bank account, this payment was included in the Insurance account shown in the trial balance.
- A payment of a telephone bill of $440 (including GST of $40) was accidentally debited to the Wages account. (GST was recorded accurately.)
- Smith withdrew $500 cash from the business in March 2023. Unfortunately, this has been recorded as a withdrawal of inventory.

SMITH'S GREAT OUTDOORS: TRIAL BALANCE AS AT 31 MARCH 2023

	$		$
Advertising	1 440	Capital	139 860
Cash at bank	5 290	Cash sales	86 340
Commission revenue	1 540	Accounts payable	3 360
Cost of sales	62 000	Credit sales	35 400
Drawings	10 800	Accounts receivable	2 500
Insurance	2 300	GST clearing	4 000
Interest on loan	3 890	Loan from bank	21 000
Inventory	55 400		
Office equipment	9 800		
Postage	1 020		
Rent of premises	96 200		
Security expenses	1 320		
Shop fittings	12 400		
Telephone	2 840		
Wages	24 300		
	290 540		
Miscellaneous expenses	1 920		
	292 460		292 460

- A receipt of $200 from an account receivable was recorded as a cash payment to an account payable.
- A cash sale of $900 was recorded as a credit sale of $900. The cost of this sale was recorded correctly, as was the GST.
- Smith isn't certain that he has sorted all of the accounts correctly in the trial balance. He has asked that you check this, as he thinks some accounts may be listed on the wrong side of the report.
- Smith couldn't get the trial balance to balance, so he created the item 'Miscellaneous Expenses $1920' to get his trial balance in balance. No such expense had been paid during the reporting period.

---

a Jakob Smith has breached some accounting assumptions and/or failed to ensure that his accounting information has the qualitative characteristics required. State and explain the qualities and/or assumptions that he has breached, giving details of the items affected by the breaches.

b Redraft the entire trial balance for Smith's business, considering the information provided. Your redrafted trial balance should be accurate as at 31 March 2023.

CHAPTER CHECKLIST

Now that you have finished Chapter 5, double check your progress.

Are you ready for your Unit 3 assessment?

I have …

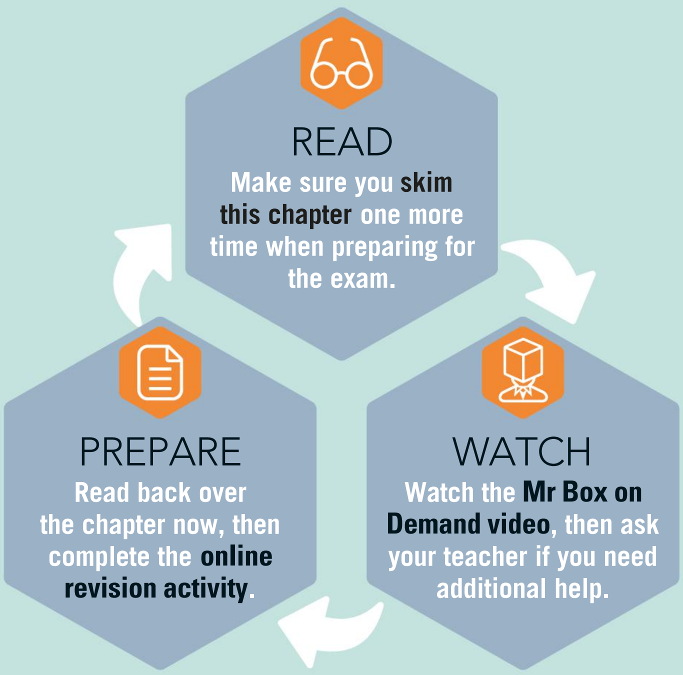
- completed all 'Check Your Understanding' questions
- completed all exercises
- completed the end of chapter activity
- handed in my workbook for marking.

I understand …

- the General Journal and General Ledger and their use in recording transactions, both manually and using ICT, including:
  - cash payments
  - cash receipts
  - drawings of inventory by the owner
- the purpose and use of the pre adjustment Trial Balance
- the process of balancing General Ledger accounts for assets, liabilities and owner's equity
- the recording of the transfer of drawings to the Capital account in the General Journal and General Ledger.

I can …

- identify and manually record financial data in the General Journal and General Ledger
- use ICT to record financial data in the General Journal and General Ledger
- explain the purpose of a Trial Balance.



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6 GENERAL JOURNAL TRANSACTIONS

Chapter 5 introduced the concept of the general journal, and showed how to use double entry accounting to record a number of common transactions. However, the general journal is a powerful tool, and can be used to record far more than sales and expenses.

In this chapter you will learn how to record other types of transactions, and how to correct errors via the general journal.

LEARNING OBJECTIVES

By the end of this chapter, you will be able to:

- use the general journal to establish a set of double entry records **[6.1]**
- record the contribution of assets by a business owner **[6.2]**
- record the withdrawal of assets by a business owner **[6.2]**
- record inventory being used for advertising purposes **[6.3]**
- correct recording errors through the general journal **[6.4]**

UNIT 3 – PROGRESS 1 2 3 4 5 6 7 8 9 10 11 12 13

6.1 Managing a double entry system

6.2 Contribution or withdrawal of assets

6.3 Donations of inventory and business advertising

6.4 Correcting errors through the general journal

Chapter review and exercises

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6.1 MANAGING A DOUBLE ENTRY SYSTEM

In previous chapters you learnt about many of the day to day financial transactions business owners are required to record in a general journal and general ledger accounts, using the rules of double entry accounting. In this chapter you will examine some additional transactions.

For example, the following events may occur during the life of a business:

- the owner contributes assets (other than cash)
- the owner withdraws an asset (other than cash) for personal use
- the owner decides to introduce a double entry accounting system
- the owner returns inventory purchased to a supplier
- a customer returns inventory sold
- errors are made in the recording process and corrected via the general journal.

CONTRIBUTING MULTIPLE ASSETS

Often, the first time management uses a general journal is when the business is created. This usually involves the business owner making a cash contribution, with a debit entry to the Cash at Bank account and a credit entry to Capital as the first double entry.

However, if the owner contributes multiple assets, such as cash and equipment, an entry for each must be created in the general journal.

EXAMPLE 6.1

Linda Carter commences business on 1 March with a cash contribution of $60 000, a vehicle valued at $35 000 and equipment valued at $5000.

Three different assets are contributed by the owner, all of which are created through the general journal entry.

GENERAL JOURNAL

Date	Details	Dr	Cr
1 Mar	Cash at bank	60 000	
	Vehicle	35 000	
	Equipment	5 000	
	Capital		100 000
	Assets contributed by owner to commence business (Memo 001)		

The principles of double entry are upheld in this general journal entry because the total debits equal the total credits. The journal entry results in the following general ledger accounts.

Cash at bank

		$			$
1 Mar	Capital	60 000			

Vehicle

		$			$
1 Mar	Capital	35 000			

Equipment

		$			$
1 Mar	Capital	5 000			

Capital

		$			$
			1 Mar	Cash at bank	60 000
				Vehicle	35 000
				Equipment	5 000

These entries are used to establish an accurate snapshot of the business when it is first established. The Cash at Bank account and the non cash assets are created via the general journal entry. The three assets contributed by the owner are then accumulated in the Capital account, reflecting the fact that the owner has commenced trading with $100 000 starting capital.

CONTRIBUTING A LIABILITY

In addition to the assets invested into a business when it is set up, an owner may also bring some established debts into a business.

EXAMPLE 6.2

Linda Carter's vehicle was financed by a loan of $18 000. This means that the owner doesn't have a net worth of $100 000; when liability is taken into account, her net worth becomes $82 000 ($100 000 – $18 000). The opening general journal entry then changes.

GENERAL JOURNAL

Date	Details	Dr	Cr
1 Mar	Cash at bank	60 000	
	Vehicle	35 000	
	Equipment	5 000	
	Loan – NAB		18 000
	Capital		82 000
	Assets and liabilities contributed by owner to commence business (Memo 001)		

If a liability is contributed to a business, along with a number of assets, this has a negative effect on the owner's Capital account, as the net worth of the business to the owner has been reduced.

EXAMPLE 6.3

Linda Carter's updated Capital account takes into account the liability that has also been created.

Capital

		$			$
1 Mar	Loan – NAB	18 000	1 Mar	Cash at bank	60 000
				Vehicle	35 000
				Equipment	5 000

ESTABLISHING A NEW DOUBLE ENTRY SYSTEM

Another possible scenario is a business that has been operating for a number of years using single entry accounting but has now decided to establish a set of double entry books. In this situation the values for all accounts, as shown in the balance sheet, can be used as the data to be entered in the general journal.

EXAMPLE 6.4

Siliato's Sports has used single entry accounting to this point, with the following details.

Assets	$	$	Liabilities	$	$
Cash at bank	4 000		GST clearing	1 000	
Accounts receivable	3 000		Accounts payable	2 000	
Inventory	18 000		Loan – OK Finance	5 000	8 000
Shop fittings	24 000		**Owner's equity**		
Less: Accumulated depreciation	(7 000)	42 000	Capital	34 000	42 000

The proprietor, Adrian Siliato, decides to introduce a full double entry system on 1 July 2023, using this information as the starting point. A general journal entry is created to set up the business.

GENERAL JOURNAL

Date	Details	Dr	Cr
1 Jul	Cash at bank	4 000	
	Accounts receivable	3 000	
	Inventory	18 000	
	Shop fittings	24 000	
	Accumulated depreciation – shop fittings		7 000
	GST clearing		1 000
	Accounts payable		2 000
	Loan – OK Finance		5 000
	Capital		34 000
	Assets and liabilities contributed by owner to commence business (Memo 76)		

opening journal entry
general journal entry made on the first day of business, or on the first day of a double entry recording system being established

Note that when setting up double entry for an existing business, the profit and/or drawings for the previous reporting period aren't required in the **opening journal entry.**

The general journal entry in Example 6.4 uses the accounting equation to determine the capital figure of the owner. The account for accumulated depreciation is shown as a credit entry along with the liabilities of the business, as they both reduce the owner's equity in the business.

Once this entry is posted to the general ledger, the double entry system is officially started. All the usual entries can now be made in the journal on a daily basis.

6.2 CONTRIBUTION OR WITHDRAWAL OF ASSETS

The most common asset contributed to or withdrawn from a business by a proprietor is cash. However, there may be times when an owner decides to contribute or withdraw a different asset. Consider the events entered into the journal below.

Jul	1	The owner contributed an office desk to the business, with a fair value of $200.
	2	The owner withdrew inventory with a value of $100 for personal use.

These transactions are recorded in the general journal as shown in Figure 6.1.

FIGURE 6.1 General journal entries for contribution or withdrawal of assets other than cash

GENERAL JOURNAL

Date	Details	Dr	Cr
1 Jul	Office furniture	200	
	Capital		200
	Owner contributed an office desk to the business (Memo 12)		
2 Jul	Drawings	100	
	Inventory		100
	Owner withdrew inventory for personal use (Memo 13)		

Whenever an owner puts an asset into a business, the particular asset account must be debited and the Capital account credited. If an asset is withdrawn, the opposite occurs the Drawings account is debited (to record the negative effect on owner's equity) and the particular asset account is credited.

Withdrawing inventory is more complicated. When a business buys its inventory, it records a debit entry to the Inventory account. If the owner withdraws some of this inventory, the asset account must be reduced to reflect the decrease that has occurred in the amount of inventory on hand.

Always remember that the Inventory account should show the cost of goods available for sale at any time during the reporting period. If a decrease in inventory occurs because of a withdrawal by the owner, this transaction must result in a credit entry to the Inventory account.

USING FAIR VALUE FOR ASSETS

In Figure 6.1, the owner contributed an office desk to the business valued at $200. If the business actually purchased the office desk from someone else, the verifiable cost of the asset would be used, as this would be supported by a source document (e.g. an invoice).

In this case, the business didn't buy the asset. The owner originally purchased the desk and has now contributed the asset from their personal resources to the business entity. This means that there is no source document to verify the cost of the asset to the business. The owner may have a document that proves the cost of the asset when it was first purchased, but the item may now be several years old, so its original cost has no relevance to the business.

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A fair value needs to be estimated for second-hand assets like a used desk.

fair value
estimate of an asset's value, used when a second-hand asset is contributed to a business

When a business owner contributes a second hand asset to their business, they make an estimate of the asset's value to provide a relevant value for the balance sheet. This is known as the **fair value** of an asset, which is based on a reasonable estimate of its current market value. Usually a business owner makes this estimate based on advice from their accountant or an expert in the appropriate field.

The estimate won't satisfy the demand of verifiability, because there is no source document available to verify the actual current value of the asset. However, to satisfy the demands of relevance and faithful representation, a reasonable estimate may be used as an asset's fair value, so that meaningful information can be reported in the balance sheet.

6.2 CHECK YOUR UNDERSTANDING

WB PAGE 100

1. Explain what the term 'fair value' means, and describe the circumstances when fair value may be used in accounting.
2. 'Fair value should never be used, because there are no source documents to support it.' Do you agree with this statement? Explain your answer fully.
3. A conflict may exist between verifiability and relevance if assets are valued at fair value. Explain how this conflict may occur. Which of the two qualitative characteristics do you think should be followed?

6.3 DONATIONS OF INVENTORY AND BUSINESS ADVERTISING

Another unusual transaction is where a business gives away some of its inventory for advertising or promotional purposes. For example, it may donate goods from inventory to local schools or sporting groups to assist with fundraising or as part of a sponsorship deal.

Although donations are often a gesture of goodwill towards the local community, they also represent advertising for the business. Whether a sign is erected in the rooms of a cricket club or the business is mentioned in a school's newsletter, there is usually a two way relationship between the business and the group benefiting from the donated goods. The problem is how to record such an event in the books of the business.

Assuming that the business receives a material benefit from advertising in the local community, it's logical to create an Advertising account. However, no form of advertising has actually been paid for, so it doesn't involve a cash flow. The business has simply given away inventory to someone else, and the inventory levels of the business have decreased.

EXAM SUCCESS
If an owner donates stock for advertising purposes, always debit the advertising account. Do not use 'Donations'.

FIGURE 6.2 General journal entry for advertising via donation of inventory

GENERAL JOURNAL

Date	Details	Dr	Cr
1 May	Advertising	100	
	Inventory		100
	Owner donated two soccer balls @ $50 each to the local school (Memo 31)		

The general journal shown in Figure 6.2 creates an Advertising expense account of $100 and decreases the Inventory account with the cost price of the goods given to the local school. This ensures that the Inventory account is accurate and that the goods sacrificed by the business are treated as expenses.

This is the correct accounting treatment because the business has suffered a loss of economic resources, which leads to a decrease in the owner's equity.

Inventory items can be donated to others as an advertising activity.

6.4 CORRECTING ERRORS THROUGH THE GENERAL JOURNAL

correcting entry general journal entry made in order to correct an error

Another use of the general journal is to correct errors made in the recording process, through the use of **correcting entries.**

When accounts are balanced and a trial balance is prepared, errors may be detected that need to be corrected. If incorrect debits or credits are located in the accounts, they shouldn't just be erased, written over or otherwise changed. This is unacceptable accounting practice, as it makes it difficult to detect fraud. Instead, if an error is detected it must be corrected by making a correcting entry in the journal.

When correcting an error through the general journal, two things have to be done. First, the error(s) in the books must be removed. This may mean making a credit entry to counteract an incorrect debit (or vice versa).

Second, the missing correct entry must be introduced. This can be shown by adding correcting entries.

EXAMPLE 6.5

The following errors are found in the records of Lloyd's Locks:

1. A payment of $80 for advertising was incorrectly debited to insurance.
2. An invoice for $40, plus GST of $4, was charged to B Andrews but should have been charged to P Andrews.
3. A payment of $123 for petrol was recorded in the cash payments journal as $132.

A series of correcting entries are made in the general journal.

GENERAL JOURNAL

Date	Details	Dr	Cr
30 Nov	Advertising	80	
	Insurance		80
	Correction of error – advertising debited to insurance (Memo 11)		
30 Nov	Accounts receivable – P Andrews	44	
	Accounts receivable – B Andrews		44
	Correction of error – incorrect Accounts Receivable account charged (Memo 12)		
30 Nov	Cash at bank	9	
	Petrol expense		9
	Correction of error – payment of $123 recorded as $132 (Memo 13)		

In the first two entries in Example 6.5, the credit entry is used to eliminate an error:

- Insurance has been credited because of an incorrect debit.
- Accounts Receivable   B Andrews has also been credited to remove an error.

The debits in the first two entries introduce the debit entry that should have been made in the first place. When these two entries are posted, the record will accurately reflect events.

Note that, in the second entry, no adjustments are required to the Sales account, the Inventory account, the Cost of Sales account or the GST Clearing account. This is because the error just involved the credit entry being made against the wrong accounts receivable. All of the other accounts have correct entries, and don't require any corrections.

The third entry differs slightly. When an incorrect figure has been entered, there are two possible ways to correct the error.

1 If the journal has already been posted, this error will now be in the general ledger accounts. In this situation, a journal entry is necessary to correct the mistake   the $9 correcting entry.
2 If the journal hadn't already posted, then the double entry in the general journal will be correct, but the amount debited to the Petrol expense account is incorrect. In this situation, it's appropriate to rule a line through the incorrect figure and write the correct number above it. (In a spreadsheet, you might replace the incorrect figure, but leave a comment on the cell to note the original error.) As mentioned earlier, numbers aren't erased from the books; any corrections should be clearly visible, including the incorrect original amount.

A set of ledger accounts shouldn't contain many errors, but when they are found, a formal general journal entry is the best way to correct them. This leaves no doubt as to what has been corrected in the ledger accounts. It also fits with the systematic approach to accounting, because all entries in accounts can be traced back to their source via a journal entry.

General ledgers create a trail of all entries in accounts back to their source.

6.4 CHECK YOUR UNDERSTANDING

WB PAGE 101

1 'If a business owner donates inventory items to a local community group, an expense item is created.' Do you agree with this statement? Explain your answer fully.
2 Carlson Education Supplies donates two computers to Carlton Primary School. State the two-fold effect that this event has on the balance sheet of the business.
3 What is the acceptable accounting procedure when an error is detected in a general ledger account? Explain why this procedure is followed.

6 CHAPTER REVIEW

KEY CONTENT

- [6.1] When a business owner contributes multiple assets to create a business, each asset must be recorded in the general journal entry. Liabilities brought into the business at the start should also be recorded in the Owner's Capital account.
- [6.1] When an existing business begins using double entry accounting, the values for all accounts (as shown in the balance sheet) are used as the data to be entered in the general journal. The profit and/or drawings for the previous reporting period aren't required in the opening entry.
- [6.2] Whenever an owner puts an asset into a business, the asset must be debited and the Capital account credited. If an asset is withdrawn, the opposite occurs. If the owner withdraws inventory, the asset account must be reduced.
- [6.2] If the owner adds their own assets to the business, this isn't a purchase and the business won't have a source document to verify the asset's cost. Instead, a fair value should be estimated and recorded.
- [6.3] Businesses often donate inventory as a form of advertising. This should be reflected in the general ledger by decreasing the Inventory account, then recording the value of the inventory as an expense in an Advertising account.
- [6.4] When errors are detected in accounts, it is unacceptable to simply change or erase them. Instead, correcting entries should be made in the journal to fix the balance and make a note of the error.

CHAPTER 6 EXERCISES

SPREADSHEET

1 Opening entry: assets only

WB PAGE 102

Laura Pase decides to open a business trading as Champion Sound. On 1 April 2023 she contributes cash of $50 000, a vehicle with an agreed value of $32 000 and PA equipment valued at $12 000. These details are noted on Memo 101.

a Prepare the opening general journal entry for the business on 1 April.
b State the accounting equation of the business as at 1 April 2023.

SPREADSHEET

2 Opening entry: including liability

WB PAGE 102

John Di Meglio commences business on 1 March 2023, trading as Western Wholesalers. He contributes the following assets: cash $68 000, vehicle $36 000 and equipment $23 000. Di Meglio financed the vehicle with a loan from NAB for $10 000, which is now the responsibility of the business. All details were recorded on Memo 201.

a Prepare the opening journal entries for Western Wholesalers.
b Prepare a balance sheet for the business as at 1 March 2023.
c Explain how Di Meglio would have determined the value of $36 000 for his vehicle.

3 Single entry to double entry

WB PAGE 104 SPREADSHEET

Aaron Turner is the owner of Traralgon Gifts. He has used single entry accounting since he started the business. A friend suggests that he should convert to double entry accounting. Using the following information, prepare the opening general journal entry on 1 August 2023 to establish a set of books under double entry accounting.

ASSETS AND LIABILITIES AS AT 31 JULY 2023

	$		$
Cash on hand	200	GST clearing	500
Cash at bank	2 200	Accounts payable	3 600
Accounts receivable	3 200	Loan – AGC	7 500
Inventory	44 300	Loan – NAB	12 400
Display equipment	12 600		
Less: Accumulated depreciation	(2 600)		
Computer	3 200		

4 Single entry to double entry

WB PAGE 104 SPREADSHEET

Lauren Mbele's business, Afrique Hairdressing Supplies, has been operating for a number of years using a system of single entry accounting. Lauren has decided that the business is now too complex for single entry and wants to set up a full set of double entry records. The balance sheet of the business as at 30 June 2023 is provided below.

AFRIQUE HAIRDRESSING SUPPLIES: BALANCE SHEET AS AT 30 JUNE 2023

Assets	$	$	Liabilities	$	$	$
Cash on hand		200	GST clearing		300	
Accounts receivable		660	Cash at bank		1 000	
Inventory		40 340	Loan – MT Finance		14 700	16 000
Shop fittings	20 000		**Owner's equity**			
Less: Accum. dep'n	6 000	14 000	Capital	45 000		
Office equipment	9 000		Net profit	4 700	49 700	
Less: Accum. dep'n	2 500	6 500	*Less:* Drawings		4 000	45 700
		61 700				61 700

Prepare the necessary general journal entry to establish a double entry system on 1 July 2023.

5 Contributions and withdrawals of assets

WB PAGE 105 SPREADSHEET

The owner of Third Dimension Print Supplies, Ed Bendis, had the transactions during January 2023.

Jan 3	Bendis contributed a computer from his home to the business. The computer had a fair value of $2300 (Memo 101).
Jan 24	Bendis needed to do some repairs at home on his own 3D printer. He took some inventory items from the shop, which had originally cost the business $120. These items were going to be sold for $250 (Memo 102).

Prepare the general journal entries to record each of these events.

SPREADSHEET

6 Inventory used for advertising

WB PAGE 105

Lydia Lawrence is the owner of Northside Music & Beats. She receives a request from Northcote Primary School to donate some goods for the school's annual raffle. Lydia decides that it may be beneficial for her business, as the principal has guaranteed advertising space in the school newsletter.

On 31 March 2023, she takes some inventory from her shelves, which was selling for a total of $1200, and notes the details on Memo 162. Lawrence also advises that she applies a mark up of 100% on all goods sold.

- a Prepare the general journal required as a result of the above information.
- b State the two fold effect of your entry on the accounting equation of Northside Music & Beats.

SPREADSHEET

7 Inventory used for advertising

WB PAGE 105

Wodonga Kidsport is owned and managed by Bill Teggelove. The local Lions Club contacts a number of local businesses, looking for donations of toys and sporting goods. Teggelove is keen to help out, as he sees it as a good way to build goodwill for his business with the local community. He decides to provide the following goods, and notes their details on Memo 218 (issued 10 April 2023).

Quantity	Item	Cost price	Selling price
2	Bicycles	$150.00	$295.00
2	Tricycles	$125.00	$245.00
3	Cricket sets	$45.00	$99.00

- a Prepare the general journal entry to account for the donated goods.
- b A friend of Teggelove's suggests that any goods donated from his business are supposed to be recorded as drawings, because they're no longer available for sale. Do you agree with this statement? Explain your answer fully, with reference to the accounting assumptions and/or qualitative characteristics of accounting.

SPREADSHEET

8 Correction of errors

WB PAGE 106

At the end of November 2023, the following errors are found in the general ledger of Paint 'n ' Paper. Prepare general journal entries to correct these mistakes.

- a A payment of $400 for wages was incorrectly debited to the Drawings account.
- b A receipt of $100 from accounts receivable J Blake was recorded as being received from J Black.
- c A debit of $540 to insurance was entered in the journal as $450.
- d Cash sales of $200 were incorrectly credited to commission revenue.
- e A payment of $150 for the hire of equipment was incorrectly debited to the Equipment account.

9 Correction of errors

WB PAGE 107 SPREADSHEET

Prepare the required general journal entries to ensure the correct recording of the following information in the books of Fidget Factory on 30 November 2023.

- **a** An office desk purchased for cash to use in the business's office was accidentally debited to the Inventory account (Memo 41). The cost of the desk was $600.
- **b** The owner contributed office furniture to the business from his personal assets. The furniture had a fair value of $500 but it was recorded as $50 (Memo 42).
- **c** J Barton paid the business $480 on account. However, an entry was made against Accounts Receivable J Burton (Memo 43).
- **d** Inventory that cost the business $100 was donated to the local school for a fete. This was incorrectly debited as drawings by the proprietor (Memo 44).
- **e** A payment of advertising for $191 was incorrectly recorded in the general journal as insurance of $119 (Memo 45).

10 A review of general journal entries

WB PAGE 109 SPREADSHEET

The following information relates to a small business trading under the name of Peninsula Vintage Furniture. Prepare general journal entries (if necessary) for each of the items listed.

- **a** On 12 March 2023 the owner contributed a computer to the business from her home. The machine had a fair value of $750 (Memo 81).
- **b** Registration and insurance was paid on the business's delivery van during the year. The total cost was $820. On 14 June 2023 it was discovered that the full amount had been debited to the Delivery Van account (Memo 82).
- **c** On 7 July 2023 the owner found that a payment made in late June was incorrectly recorded in the journal. The payment was for courier fees totalling $248. However, the journal entry shows a payment of $284 (Memo 83).
- **d** On 19 July 2023 the owner donated some goods to the Salvation Army. The goods had originally cost $500 and usually sell for $950. The owner was unsure how to treat such an item and decided to treat it as a withdrawal for personal use (Memo 84).
- **e** The business completed an EFT for $1280 to an accounts payable. Unfortunately, the payment was recorded in the journal as advertising expense.
- **f** A loan application was submitted to the bank in early August. The business requested an amount of $25 000 to buy a second delivery van. On 8 August the owner realised that she had made an error, as she had intended to ask for a loan of $28 000.
- **g** A piece of furniture withdrawn by the owner on 17 August 2023 was accidentally recorded as a cash sale. The item taken home originally cost $90 and usually sells for $160, plus GST of $16 (Memo 86).

CHAPTER CHECKLIST

Now that you have finished Chapter 6, double check your progress.

Are you ready for your Unit 3 assessment?

I have ...

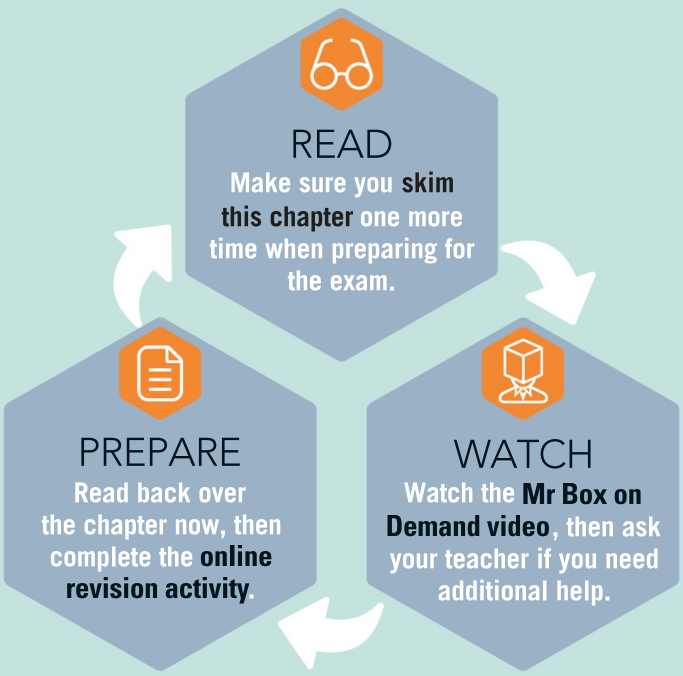
- completed all 'Check Your Understanding' questions
- completed all exercises
- handed in my workbook for marking.

I understand ...

- the General Journal and General Ledger and their use in recording transactions, both manually and using ICT, including:
  - establishment of a double entry system
  - inventory used for advertising purposes
  - contribution of non current assets at fair value by the owner.

I can ...

- identify and manually record financial data in the General Journal and General Ledger
- use ICT to record financial data in the General Journal and General Ledger.



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7 THE PERPETUAL INVENTORY SYSTEM

The success of a trading business depends on its ability to buy and sell goods to make a profit. These goods are referred to as inventory, stock or merchandise. Most of the business's transactions will involve changes to inventory. These changes need to be recorded accurately in the business' accounting system.

In this chapter you will learn how to use the double entry accounting system to record changes to inventory. You will also learn how to use the perpetual inventory system and inventory cards to keep current records.

LEARNING OBJECTIVES

By the end of this chapter, you will be able to:

- define 'inventory' [7.1]
- explain what is involved in a physical stocktake [7.1]
- outline the features of the perpetual inventory system [7.2]
- outline the role of the Inventory account [7.3]
- describe the double entry requirements of a trading business using perpetual inventory [7.3]
- explain the identified cost and the first in, first out (FIFO) methods of valuing inventory [7.4]
- record movements of inventory on inventory cards, using the first in, first out (FIFO) method and identified cost [7.5]
- prepare appropriate entries in ledger accounts for the purchase and sale of inventory [7.5]
- calculate, record and report inventory losses and gains [7.6]
- record inventory card entries for donations [7.7]

UNIT 3 – PROGRESS 1 2 3 4 5 6 7 8 9 10 11 12 13

7.1 WHAT IS INVENTORY?

inventory
goods purchased by a trading business for the purpose of resale

A trading business buys **inventory** and sells it at a higher price to earn its revenue. If it sells enough inventory during the reporting period, the revenue it earns should exceed its expenses, resulting in a profit.

The definition of trading inventory excludes some items that a business may sell occasionally. Non current assets, such as equipment and vehicles, may be sold for a gain or a loss at the end of their useful lives. However, when management purchases such assets, the intention isn't to resell them to earn revenue. Non current assets are bought with the intention of owning them for several reporting periods, for use within the business.

THE PHYSICAL STOCKTAKE

physical stocktake
the process of counting units of inventory on hand at a particular point in time

Once every reporting period, a business must carry out a **physical stocktake** of its inventory. The aim of a stocktake is to determine the actual amount of inventory on hand at a given date. The value of inventory at that time is included in the business's balance sheet as a current asset. It's also used as a check on the inventory records kept under the perpetual method of recording inventory movements (explained later in the chapter).

A stocktake has two stages. First, the number of units of each type of inventory is physically counted. Second, the cost price of each of these units is used to calculate a total value for inventory on hand.

inventory sheet
record used to note details of goods on hand when doing a physical stocktake

Inventory sheets are used to record the details of a stocktake. Figure 7.1 shows a typical inventory sheet.

FIGURE 7.1 A typical inventory sheet

Inventory item	Quantity	Cost $	Sale price $
AB cricket bats	50	200	10 000
CV cricket balls	400	40	16 000
Mitre soccer balls	80	30	2 400
Kooka hockey sticks	60	30	1 800
Total inventory on hand			30 200

Note that the quantity on hand of each inventory unit is stated, as well as its actual cost. In this example, the business's inventory on hand would be stated as $30 200.

7.1 CHECK YOUR UNDERSTANDING

WB PAGE 111

1 Explain how an item may be classified as inventory for one business, but as a non-current asset for another.
2 Define 'physical stocktake'.
3 Describe the two processes that must be carried out as part of the stocktaking process.

7.2 WHAT IS PERPETUAL INVENTORY?

Perpetual inventory (also known as continuous inventory) involves keeping records of all inventory movements throughout the reporting period. While a physical stocktake determines the amount of inventory on hand on balance day, the perpetual method updates the balance of inventory on hand continuously.

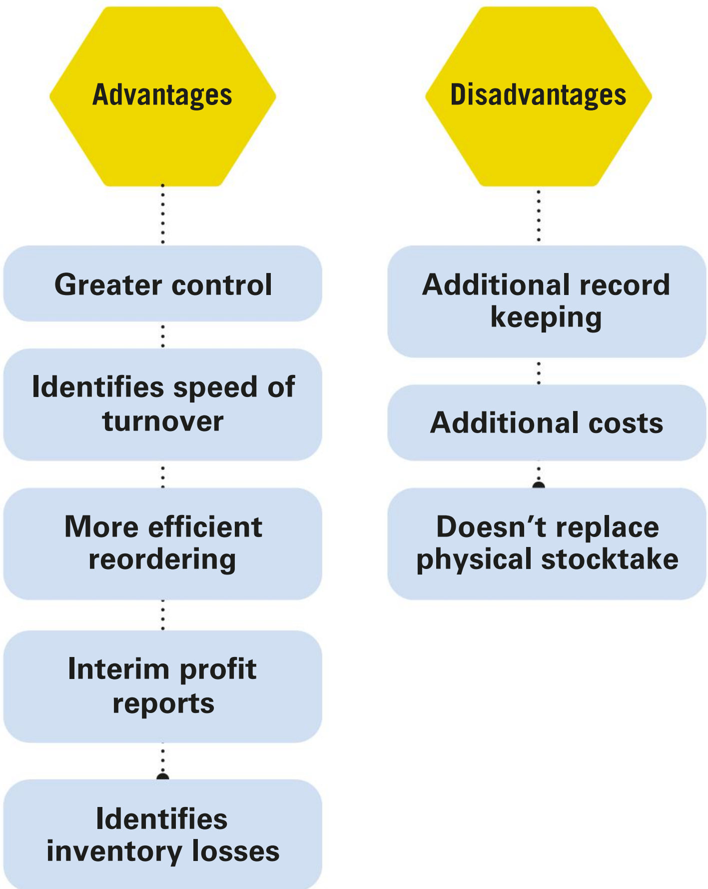
perpetual inventory a system of recording movements of inventory items on a continuous basis throughout a reporting period

Every time inventory moves in or out of the business, the inventory balance is updated. When inventory is purchased, the balance increases; when sales are made, the balance decreases. Even withdrawals of inventory by the owner must be accounted for, as these also decrease the balance of inventory on hand.

There is a lot of recording required under the perpetual inventory system. Inventory is usually recorded at cost price, so there is a need for information regarding the cost prices of inventory throughout the reporting period.

So, what are the benefits to management if it uses the perpetual inventory method? Figure 7.2 summarises its advantages and disadvantages.

FIGURE 7.2 Advantages and disadvantages of the perpetual inventory method



ADVANTAGES OF PERPETUAL INVENTORY

1. **Greater control over inventory is possible, because up-to-date information is available throughout the reporting period.** With more information, management can make better decisions in relation to inventory. When computerised inventory systems are used, information can be continually updated as transactions occur. This information is timely and highly valuable to management.
2. **Slow-moving and fast-moving lines of inventory can be identified.** An inventory card is used to record all movements of an inventory item. Cards are maintained throughout the reporting period, so precise information is available

about how often sales occur for each item. Management can then make decisions based on that information, such as increasing the level of items that sell well, or reducing/eliminating slow moving items.

3 **Reordering of inventory is more efficient.** Perpetual inventory involves keeping a record of how many units of each item are on hand at any time. When the number of units reaches a certain level, an order can be sent to the relevant supplier. This avoids the problem of running out of inventory and possibly missing out on sales.

4 **Interim profit reports can be prepared without doing a stocktake.** This is one of the big advantages of perpetual inventory. As records are continually updated, in terms of both selling prices and cost prices of goods sold, a gross profit figure can be calculated daily. This is extremely valuable information for management. If an estimate of operating expenses can be made, an estimated net profit figure can be calculated for each week or month of the reporting period. (It can only be an estimate of profit, though, as the physical stocktake may reveal other information such as inventory losses.)

5 **The level of inventory losses or gains can be measured.** The perpetual method can identify the goods lost during the period (in conjunction with a physical stocktake). Losses may occur due to theft or breakages, and the level of such losses can be measured in the perpetual system. Management may then react to such losses and make the appropriate decisions, such as installing security systems.

DISADVANTAGES OF PERPETUAL INVENTORY

1 **Additional record keeping.** Inventory balances must be updated on a continuous basis. This may increase the workload of the owner/manager or require more staff.

2 **Additional costs may be incurred.** These costs may relate to extra staff and/or equipment. For example, many perpetual systems run on computerised systems. These systems and their software have to be purchased if management decides to use the perpetual inventory method.

3 **It's still necessary to do a physical stocktake at the end of the reporting period.** Even though perpetual inventory continuously updates inventory records, events such as breakages, theft and errors may lead to these records being inaccurate. The only way to determine the actual inventory on hand is to count it. Therefore, even with all the additional work and record keeping, perpetual inventory doesn't eliminate the need for a periodic stocktake.

Given all these disadvantages, perpetual inventory must produce significant benefits for it to be used. Which it does; perpetual inventory provides owners with information that is vital to inventory management. The benefits of maintaining the system usually far outweigh the costs.

7.2 CHECK YOUR UNDERSTANDING

WB PAGE 112

1 Briefly explain what is involved in the perpetual inventory system.
2 Identify and describe three advantages of perpetual inventory.
3 Identify and describe three disadvantages of perpetual inventory.

7.3 THE INVENTORY ACCOUNT

As you have seen in earlier chapters, purchases of inventory are debited to an asset account in the form of the Inventory account. During the reporting period, as sales are made, the cost price of these sales is transferred from the Inventory account to a Cost of Sales account (an expense). The **Inventory account** is used to record all movements of inventory.

inventory account general ledger account used to record transactions affecting inventory

Inventory is an asset, so whenever it increases, the Inventory account must be debited. If the level of inventory decreases, the Inventory account must be credited (see Table 7.1). The balance of the Inventory account represents the total cost of inventory on hand at a point in time.

TABLE 7.1 Summary of the Inventory account

INVENTORY

Increases in inventory are caused by:	Decreases in inventory are caused by:
• buying goods	• selling goods
• inventory gains	• inventory losses
• capital contributions of inventory	• drawings of inventory
	• inventory used for advertising

The Inventory account is a summary of total inventory and is backed up by records of individual inventory items in subsidiary records known as inventory cards. The total of all inventory cards must equal the balance of the Inventory account in the general ledger.

Changes to the level of inventory are recorded in the Inventory account.

DOUBLE ENTRY UNDER THE PERPETUAL METHOD

This is a good time to revisit the basic double entries relating to inventory movements, to help you get a full understanding of all recording for inventory. Table 7.2 summarises the double entries required for buying and selling inventory for cash or credit.

TABLE 7.2 Double entry under perpetual inventory

Transaction	Source document	Double entry	
1 Bought goods for cash	EFT receipt	Inventory GST clearing Cash at bank	Dr Dr Cr
2 Bought goods on credit	Purchase invoice (original)	Inventory GST clearing Accounts payable	Dr Dr Cr
3 Sold goods for cash	Receipt (copy) or EFT receipt (merchant copy)	Cash at bank Sales GST clearing (with selling price) and Cost of sales Inventory (with cost price)	Dr Cr Cr Dr Cr
4 Sold goods on credit	Sales invoice (copy)	Accounts receivable Sales GST clearing (with selling price) and Cost of sales Inventory (with cost price)	Dr Cr Cr Dr Cr

7.3 CHECK YOUR UNDERSTANDING

WB PAGE 113

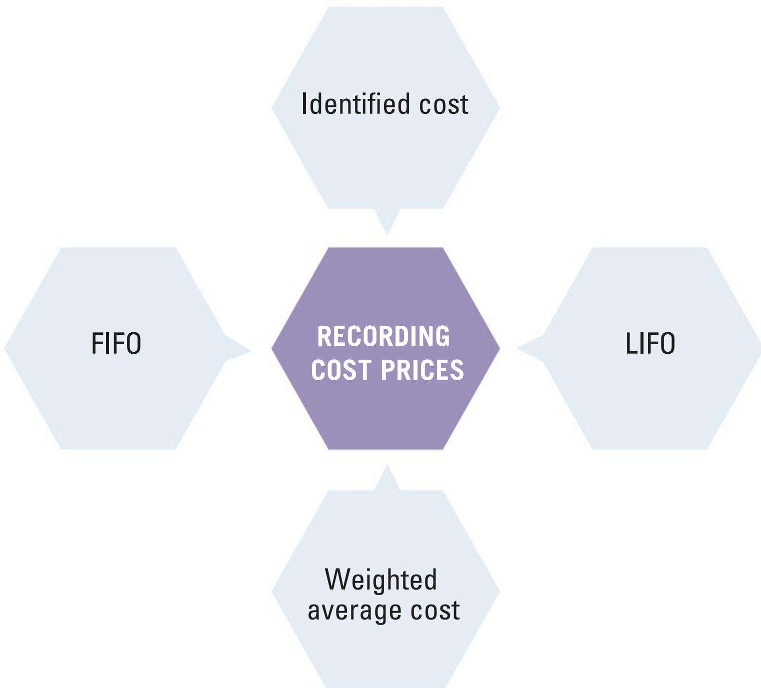
1. Outline the role of the Inventory account under the perpetual inventory method.
2. What classification applies to the Inventory account? Explain your answer.
3. Outline the role of the Cost of Sales account. What classification applies to this account?
4. State two financial transactions that:
   - **a** increase the Inventory account
   - **b** decrease the Inventory account.
5. State the double entries required for each of the following transactions under the perpetual inventory method:
   - **a** purchased inventory for cash
   - **b** purchased inventory on credit
   - **c** sold goods for cash
   - **d** sold goods on credit.

7.4 IDENTIFYING THE COST PRICE OF SALES

Table 7.2 summarised the source documents for the data in the general journal and general ledger. These documents contain details such as the cost of purchasing inventory (purchase invoices) and the prices charged to customers for inventory sold (sales invoices and receipts).

One item that is *not* included on the source documents is the cost price of the sales made by the business. These prices must be entered in the general journal on a continuous basis throughout the period, and therefore must be readily available. So, how are cost prices recorded for accounting purposes? Figure 7.3 summarises the different methods.

FIGURE 7.3 Methods of recording cost prices



Cost prices may be identified using one of the following methods:

1. An *identified cost method*, which identifies the actual cost of each item of inventory when it is sold.
2. The *first in, first out (FIFO) method*, which assumes that the first inventory purchased is the first inventory sold.
3. The *last in, first out (LIFO) method*, which assumes that the business sells its most recent purchases first.
4. The *weighted average cost method*, which calculates an average of the cost price of each item of inventory and applies this cost when a sale is made.

An owner of a trading business has a basic choice to make when recording cost prices of goods sold. They can either *identify the actual cost* of all goods, or *make an assumption* about the movement of inventory over time.

This is the main difference between identified cost and the other methods. The **identified cost method** records the actual cost price of every item of inventory sold. FIFO, however, simply assumes that the first goods in are the first goods out.

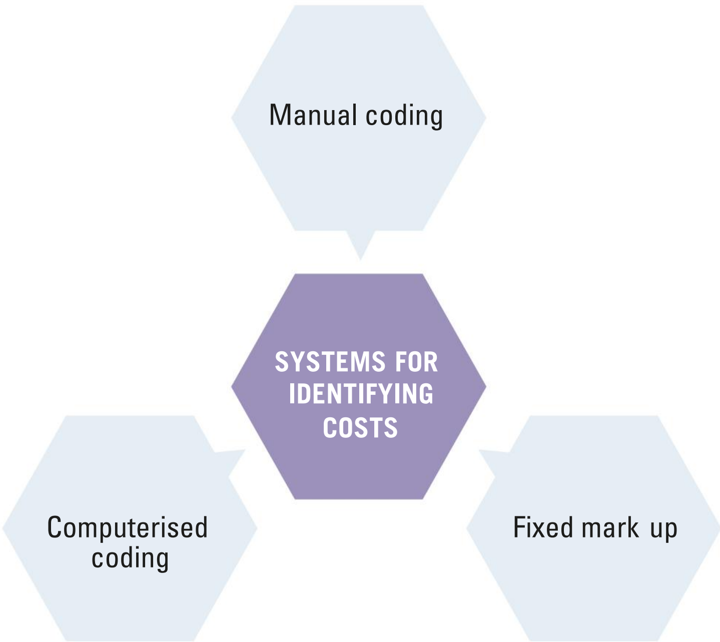
identified cost method
system of recording the actual cost of each individual unit of inventory

Note: While there are four methods of applying costs to inventory, the VCE Accounting Study Design only requires knowledge of the *identified cost* and *first in, first out* methods. The other methods aren't explored in this textbook.

THE IDENTIFIED COST METHOD

If a business uses identified cost, it must decide how cost prices can be identified during a reporting period. This must be done in a relatively easy way. The general journal needs to be written up daily, and the cost prices of all sales are required for both cash and credit sales. Figure 7.4 summarises the common methods of identifying cost prices.

FIGURE 7.4 Common methods of identifying cost prices



Manual coding systems

One simple way to identify the cost of inventory is through a manual coding system. Such systems are cheap to implement and are effective if the volume of sales isn't too high. A business that sells large items, such as lounge suites or televisions, could use a manual coding system.

The code involves a series of letters or numbers on the price tag of each item, such as the price tag shown in Figure 7.5.

FIGURE 7.5 Price tag with numeric code

The customer can see the selling price of $65 for the item, but the numbers in the middle of the price tag are meaningless to them. They are a simple code for the following information:

- The first four digits (1804, in this example) indicate the date of purchase by the store (18 April).
- The next four digits (3250) indicate that the cost price of the item was $32.50.
- The last digits (12) are a code for the supplier of the goods (i.e. the wholesaler).

This is only one example of a simple coding system that can be varied to suit the needs of the individual business.

Rather than a simple numeric code, a different coding system may be used to more effectively 'hide' the cost price of inventory. The price tag shown in figure 7.6 uses an alphabetic code so that the cost price of inventory is not known by anyone other than management.

FIGURE 7.6 **Price tag with alphabetical code**

Once again, when a customer sees this item on display, the selling price is clearly marked but the letters above it are meaningless. Management, however, has included the cost price of the item on its price tag by using the following code:

C	H	R	O	M	E	T	A	P	S
1	2	3	4	5	6	7	8	9	0

Each letter is used to denote a particular number. The letter C indicates 1, the letter M indicates 5, and so on. The slash in CM/TS distinguishes the dollars from the cents. The cost price of this item is $15.70.

Once such a code has been used for a short while, management can determine the cost price of any inventory item at a glance. The letters used in the code don't really matter, but the cost price can be deciphered more quickly if the code is easy to remember, as in the example of *chrome taps*. The only important consideration is that 10 letters are needed and that they all must be different.

A side benefit of using a code is that staff members can easily determine the cost price of an item, and therefore the profit margin. This is useful in situations where a customer asks for a discount. The seller can check the cost price on the spot and know how low the price can be adjusted before the business loses money on the deal.

Fixed mark-up systems

Some small business owners prefer to keep things very simple and apply a specific mark up to *all* products being sold. For example, it's easy to determine selling prices by applying a 100% mark up to all inventory, doubling all cost prices. If a mark up of 100% is applied, working backwards from selling prices to cost prices is also simple just halve the selling price.

However, not all small businesses apply one mark up to all items of inventory, or one as simple as the 100% example. The formula below is very useful.

$$\text{Cost price} = \frac{\text{Selling price x 100}}{\text{100 + Mark-up}}$$

For example, inventory with a selling price of $40 was found in the stocktake of a business that marks everything up by 60%. To determine its cost price, use the following formula.

$$\text{Cost price} = \frac{\$40 \text{ x } 100}{100 + 60} = \frac{\$4000}{160} = \$25$$

The answer can always be checked by working from the cost price back to the selling price, as shown below.

Mark-up = 60% of \$25 = \$15

The selling price = \$25 + \$15 = \$40

For such a system to work, it's assumed that selling prices and mark ups don't change over time. If the mark up hasn't been maintained because some inventory is sold at a reduced price, the system would have to be adjusted.

Computerised coding systems

Manual systems may be suitable for some small businesses, but if the number of sales per day is high, they become impractical. The information relating to cost prices must be copied from each price tag during the day, or all price tags must be removed at the point of sale and then collated later. This can be difficult in shops that sell high volume goods, such as a supermarket.

A computerised system, based on product barcodes, overcomes this problem. Barcodes now appear on almost all products. The use of a scanner at the checkout enables many different types of financial information to be recorded instantly. A barcode can include information such as the product's country of origin, the supplier of the goods, the cost price of the item and its selling price.

If a business can afford a barcoding system, daily reports can be generated on matters such as:

- total dollar sales for the day
- total value of the cost of sales for the day
- number of units sold of each inventory item
- reorder requirements of each item of inventory.

Such information is highly valuable to management. One of the demands of accounting information is that it be *timely* (see Chapter 1), which means that information must be available quickly enough to be useful. A perpetual system that can generate a daily financial summary of inventory movements meets this demand.

Many small, sole proprietor businesses may not have the funds to computerise their inventory systems, but on a smaller scale the principles remain the same. Cost prices can be recorded daily if the volume of sales doesn't make this impractical.

Computerised systems and barcode scanners help record high volumes of sales.

THE FIRST IN, FIRST OUT (FIFO) METHOD

Perpetual inventory depends on management being able to record a cost price at the actual time of sale. However, it is sometimes not be possible to identify the actual cost.

Consider a petrol station that has inventory on hand of 10 000 litres of fuel, costing $1.00 per litre. The business then purchases an additional 10 000 litres of fuel at a cost of $1.05 per litre. When the business sells 4000 litres of fuel the next day, what is the cost price of the sale $1.00, $1.05, or an average of the two lots of inventory? As all the fuel mixes together, it's impossible to distinguish one lot of inventory from another.

Another possibility is that management simply chooses not to apply an identified cost system. The hassle of coding every single item, or the cost of a computerised inventory system, deters many small business owners from applying identified cost continuously through the reporting period.

If perpetual inventory is desirable, management may instead assume that the business's inventory follows the pattern of **first in, first out (FIFO).** This is a simplified system that satisfies the demands of the perpetual system but is much easier to apply.

first in, first out (FIFO) a system of recording inventory costs, based on the assumption that the first goods purchased are the first goods sold

For accounting purposes, FIFO assumes that the first goods purchased are the first goods sold. This is acceptable, because most trading businesses try to sell inventory in roughly the same order as it's purchased. Inventory should be rotated when new deliveries arrive, to prevent items from becoming shop soiled due to customer handling. Also, in the case of perishables with use by dates, inventory may become unsaleable because the use by date has passed.

IDENTIFIED COST VERSUS FIFO

To demonstrate the differences between identified cost and the FIFO method, the purchases and sales details of a product for January 2023 are listed below.

Purchases					Sales		
1 Jan	Lot #1	50	units @ $6.00	$300	4 Jan	40	units from Lot#1 @ $12.00 each
6 Jan	Lot #2	50	units @ $6.20	$310	9 Jan	30	units from Lot#2 @ $12.50 each
13 Jan	Lot #3	50	units @ $6.50	$325	18 Jan	20	units from Lot#3 @ $12.50 each
24 Jan	Lot #4	50	units @ $6.60	$330	31 Jan	50	units from Lot#4 @ $12.90 each
Total		**200**	**units**	**$1 265**	**Total**	**140**	**units**

On 31 January, a physical stocktake reveals that 60 units were on hand after 140 units had been sold during the month.

Two questions need to be answered in relation to the accounting reports for this business:

- What is the value of cost of sales to be reported in the income statement for January?
- What is the dollar value of inventory that will be reported in the balance sheet?

If the FIFO system is used, the 60 units in inventory would be valued as 50 at $6.60 and 10 at $6.50, for a total of $395 (50 × $6.60 = $330; 10 × $6.50 = $65; $330 + $65 = $395). This is because the earlier purchases are assumed to be sold first.

The FIFO assumption gives the information below.

FIFO

Cost of sales			Inventory on hand		
50	units @ $6.00	$300	10	units @ $6.50	$65
50	units @ $6.20	$310	50	units @ $6.60	$330
40	units @ $6.50	$260			
140	units	$870	60	units	$395

To determine the cost of sales and a value for inventory on hand under an identified cost method, the price tags of all units need to be examined. A physical stocktake provides the following information.

IDENTIFIED COSTS

Cost of sales			Inventory on hand		
40	units @ $6.00	$240	10	units @ $6.00	$60
30	units @ $6.20	$186	20	units @ $6.20	$124
20	units @ $6.50	$130	30	units @ $6.50	$195
50	units @$6.60	$330			
140	units	$886	60	units	$379

A different result occurs when you compare identified cost to the FIFO method. Identified cost is the preferred method because it reports the situation as it actually happened. FIFO is only an assumption of what took place, so it's not necessarily as accurate as identified cost.

In the above example, FIFO writes off only $16 less as cost of sales for the period, and inventory on hand is $16 higher. In a business where hundreds or thousands of different stock items are sold daily, this difference may be large.

Discrepancies between the two methods tend to correct themselves over time, as one period's inventory at end becomes the inventory on hand for the start of the next reporting period. Thus, over two consecutive periods, the differences between the two methods usually cancel each other out.

Although FIFO may not exactly reflect the actual inventory flow over a period, it's a completely acceptable method of inventory valuation. As identified cost usually requires additional record keeping, FIFO is an acceptable alternative that is easy to apply to inventory, regardless of the types of products being used.

7.4 CHECK YOUR UNDERSTANDING

WB PAGE 114

1 Describe two different methods a trading business can use to identify the cost price of inventory on hand.
2 List four items of financial information that can be generated daily if a trading business uses a computerised bar-coding system.
3 Explain the difference between the identified cost method and the first in, first out method.

7.5 THE ROLE OF INVENTORY CARDS

An **inventory card** is a subsidiary record used to record the financial transactions of one particular inventory item. An inventory card should contain all relevant details of the individual item. These details vary from business to business, but usually include:

- the name (or description) of the item
- the product code number (if applicable)
- the name of the supplier
- the location of the item (particularly useful in larger businesses)
- the minimum and maximum number to be in inventory (when the minimum number is reached, the item is reordered back up to the maximum)
- the valuation method in use (we'll concentrate on the FIFO method at this stage)
- all purchases and sales in relation to the product.

inventory card
subsidiary record used to note down all movements of an individual inventory item

With all these details, the design of inventory cards can vary. As with all accounting records, an inventory card must suit the needs of the individual business. Figure 7.7 shows a typical inventory card for a perpetual inventory system.

Like most modern accounting tools, an inventory card may be a digital record, such as a spreadsheet, rather than a physical card.

FIGURE 7.7 Inventory card

Inventory item: Sonya 100 cm TV		Product code: STV 84920			Valuation: FIFO			Min: 5		Max: 15
Supplier: Wholesale Electricals		IN			OUT			Balance		
Date	Details	Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
1 Jul	Balance							5	480	2400
2 Jul	Invoice 843	10	490	4900				5	480	
								10	490	7300
3 Jul	Receipt 210				2	480	960	3	480	
								10	490	6340
4 Jul	Invoice 101				3	480	1440			
					2	490	980	8	490	3920
5 Jul	Receipt 211				3	490	1470	5	490	2450
6 Jul	Invoice 877	10	490	4900				15	490	7350

This card shows five transactions over several days:

- **July 1:** five units are on hand, with each item costing $480.
- **July 2:** 10 units are purchased on credit, as noted by Invoice 843. Note the impact on the Balance column; the business now holds five units with a cost price of $480 and 10 at a cost of $490. It's crucial that the cost prices of inventory purchased are kept in the order of purchase, allowing the FIFO rule to be applied when inventory is sold.
- **July 3:** two units are sold for cash (Receipt 210). As the first inventory bought cost $480 per unit, it's assumed that this is the inventory sold. Two of the $480 units are therefore moved to the Out column, leaving three at $480. All the $490 inventory remains in the business at this stage.

- **July 4:** five units are sold (Invoice 101).The application of the FIFO rule is crucial here. The business still has three units left at $480 each, and 10 units with a cost of $490 each. Because five were sold, under the FIFO assumption three of them are assigned the cost price of $480, while the other two are given the cost price of $490.
- **July 5:** only one cost price is left, so the three units sold on this day are allocated the cost price of $490 per unit.
- **July 6:** 10 new units are purchased. With this purchase, the cost price is the same as that previously charged. In such a case, the units can simply be added to the existing inventory. This can *only* be done if the latest cost price is the same as the last lot of inventory purchased by the business.

MANAGING USE OF INVENTORY CARDS

When inventory is purchased at different prices, these cost prices must be recorded *in order* within the inventory card. Cost prices may increase and decrease, but this doesn't affect the application of the FIFO rule. If the cost prices are kept in the order in which they occurred, the FIFO rule can be applied when inventory is sold.

The other important point to note is that all financial data recorded relates to the cost price of the inventory item. The selling price of the televisions (and the related GST) is irrelevant to the entries made in the inventory card.

For inventory cards to be an effective tool, they must be updated on a regular basis, preferably daily. This provides management with the most recent information about inventory levels. It also identifies the items that are selling well and those that are virtually not selling at all. Management can make better decisions when this sort of information is available and is updated daily.

INVENTORY CARDS AND THE GENERAL LEDGER

The Inventory account (page 127) is part of the double entry requirements of a trading business using perpetual inventory. Debits and credits are made to the Inventory account, with the usual cross referencing to other general ledger accounts.

The Inventory account is used to record entries from the general journal for purchases, purchases returns, sales and sales returns. It doesn't show individual inventory details. The balance of the Inventory account at the end of a period should equal the total inventory on hand at that time.

Inventory cards are *not* part of the general ledger double entry process. They act as a subsidiary record to note the details of individual inventory items. The number of inventory cards used by a business depends on the number of different inventory items sold, as a separate card is maintained for each line of inventory.

Table 7.3 shows the relationship between inventory cards and the Inventory account.

TABLE 7.3 The link between inventory and inventory cards

General ledger	Subsidiary record
Inventory account	Inventory cards
• one single record for total inventory	• many individual records
• no individual details of inventory items	• not part of double entry recording
• updated continuously during the period.	• updated continuously during the period.

Management can use the two types of records as a control mechanism, because the total of all inventory cards can be checked against the balance of the Inventory ledger account.

Errors may be detected by comparing the two sets of records. The balance of the Inventory account can be determined in the usual way from the general ledger. To check this figure, determine the closing balances of all the inventory cards; there should be the same dollar amount as recorded in the Inventory account.

A schedule can be prepared for this purpose, such as the one shown in Figure 7.8.

FIGURE 7.8 Schedule of inventory cards showing final balances

Inventory description	Product Code	Quantity	Cost $	Value $
Sonya 60 cm CTV	STV84920	30	200	6 000
Sonya 100 cm CTV	STV84921	50	500	25 000
Kembrook Blu-ray recorder	KM84343	20	600	12 000
Kembrook Next 4G tablets	KM84392	10	850	8 500
Balance of Inventory ledger account				51 500

It's important to be able to relate the entries in an inventory card to the double entries in the general ledger. The most obvious link between the two records is that the entries on the debit side of the Inventory account occur when inventory increases, and equate to the entries in the In column on the inventory cards. Similarly, credits to the Inventory account equate to the Out column on the inventory cards.

An important element is the Details column on the inventory card (see Figure 7.7). The source documents stated in this column indicate the nature of the transaction in each case, and should always be stated for future reference.

7.5 CHECK YOUR UNDERSTANDING

WB PAGE 115

1 What is the purpose of an inventory card?
2 How many inventory cards does a trading business need? Explain your answer fully.
3 State five different pieces of information relating to inventory that may be recorded on an inventory card.
4 Explain the link between the columns in inventory cards and the debits and credits in the Inventory account.

7.6 INVENTORY LOSSES AND GAINS

One control mechanism already mentioned is to check inventory cards against the Inventory account in the general ledger. A second mechanism is to check the inventory records against the physical items on hand at a particular time a physical stocktake. This should be done to determine whether the situation depicted in the inventory cards matches the actual inventory items in the business.

inventory loss
adjustment required when the number of units revealed by a stocktake is less than the number of units on an inventory card

inventory gain
adjustment required when the number of units revealed by a stocktake is greater than the number of units on an inventory card

Two possibile outcomes of a stocktake are an **inventory loss** or an **inventory gain**.

- An inventory loss occurs when the physical stocktake reveals an amount of inventory on hand that is *less* than that shown by the inventory cards.
- An inventory gain occurs when the physical stocktake figure is *higher* than the value depicted by the inventory cards.

CAUSES OF LOSSES AND GAINS

Inventory losses may be caused by:

- undersupply by suppliers, when the number of items delivered to the store is less than the amount stated on the purchase invoice
- oversupply to customers, when the amount of goods supplied to customers exceeds the quantity stated on the sales invoice
- theft by customers, staff and others
- recording errors in inventory cards, leading to an overstatement of the units that should be on hand
- duplicate invoices issued by a supplier, when a supplier accidentally invoices a business a second time
- stocktaking errors, such as some goods not being counted in the stocktake.

DON'T!
If asked for a cause of inventory loss, don't state 'stocktaking errors', as this can cause an inventory loss or gain. Explain your answer fully.

Inventory gains may be caused by:

- oversupply by suppliers, when the number of items delivered to the store is greater than the amount stated on the purchase invoice
- undersupply to customers, when the quantity of goods supplied to customers is less than the quantity stated on the sales invoice
- recording errors in the inventory cards, leading to an understatement of the number of units that should be on hand
- stocktaking errors, such as some goods being counted twice in the stocktake.

The business's internal control mechanisms should pick up many of these issues. For example, undersupply by a supplier shouldn't be allowed to occur; all deliveries should be checked against the relevant invoices, and any undersupply addressed immediately.

However, human error may overcome the best internal control procedures. For example, staff performing stocktakes often work long hours through the night, and counting errors can sometimes be made.

The role of accounting is to reduce, if not eliminate, the variety of errors that can occur throughout any given reporting period.

Shoplifting

The most common cause of a discrepancy between the two inventory figures is theft, particularly shoplifting. Many trading businesses experience some degree of shoplifting, and for retail outlets it can be a very expensive item.

Trading businesses are affected by shoplifting in two ways:

- When goods are stolen, the business suffers a loss equal to the cost of the item.
- The business may also lose money if it spends money on security to deter shoplifters, such as cameras or guards.

Because of shoplifting, most businesses usually suffer an inventory loss rather than an inventory gain.

ADJUSTING FOR AN INVENTORY LOSS

If an inventory loss or gain is revealed on balance day, the books must be adjusted to reflect the true situation.

An inventory loss occurs when the number of items identified in a physical stocktake is less than the number stated on an inventory card. When this occurs, the inventory card for that product must be adjusted to reflect the true situation. Information from the physical stocktake must be available before an adjustment for inventory loss can be made.

EXAMPLE 7.1

Yoshi Unlimited, a computer retailer, conducts a physical stocktake of Centrum Elite computers on 30 June, which reveals that 14 Centrum Elite computers were on hand. However, after the business sold one computer on 25 June, 15 units should have been in inventory. For some reason (possibly theft), one computer is missing.

The inventory card is adjusted to reflect the true situation.

Note the number of units on hand after the sale made on 25 June.

Inventory item: CENTRUM Elite computer		Product code: PC60333			Valuation: FIFO					
Supplier: Computer City		IN			OUT			Balance		
Date	Details	Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
1 Jun	Balance							10	1 500	15 000
4 Jun	Invoice 645				2	1 500	3 000	8	1 500	12 000
9 Jun	Invoice 646				3	1 500	4 500	5	1 500	7 500
15 Jun	Invoice 321	12	1 600	19 200				5	1 500	
								12	1 600	26 700
18 Jun	Invoice 667				1	1 500	1 500	4	1 500	
								12	1 600	25 200
25 Jun	Invoice 672				1	1 500	1 500	3	1 500	
								12	1 600	23 700
30 Jun	Memo 21				1	1 500	1 500	2	1 500	
								12	1 600	22 200

The FIFO assumption also applies to inventory losses. If items are lost, they are assumed to be the oldest items in inventory.

EXAMPLE 7.2

As Yoshi Unlimited is missing one computer, it's assumed to be the older inventory purchased, so the inventory loss is recorded as $1500. Memo 21 is written to note the details of this event, and this document number is stated in the Details column of the inventory card.

All inventory cards should be checked in this manner on balance day, by verifying the number of goods actually on hand and checking these details against what is stated in the individual inventory cards.

Whatever is recorded in the inventory cards must also be recorded in the Inventory account in the general ledger. The Inventory account must always represent a summary of inventory cards, and therefore must be adjusted for all inventory losses. As usual, entries to general ledger accounts must originate in the business's general journal.

EXAMPLE 7.3

The loss of one Centrum Elite computer is the only inventory loss identified by Yoshi Unlimited in its stocktake. The loss of $1500 is recorded in the general ledger.

GENERAL JOURNAL

Date	Details	Dr	Cr
30 Jun	Inventory loss	1 500	
	Inventory		1 500
	Adjustment for inventory loss as revealed by physical stocktake – loss of 1 Centrum Elite computer (Memo 21)		

The loss is then posted to the general ledger, which includes an inventory balance of $40 000.

Inventory

		$			$
30 Jun	Balance	40 000	30 Jun	Inventory loss	1 500

Inventory loss

		$			$
30 Jun	Inventory	1 500			

The adjusting entry for an inventory loss reduces the asset account Inventory (credit) and increases the expense account Inventory Loss (debit).

EXAMPLE 7.4

Yoshi's Inventory account indicates that $40 000 of total inventory should have been on hand on 30 June. As one computer is missing, an inventory loss of $1500 has occurred.

The credit to Inventory of $1500 decreases this asset account to the amount actually on hand: $40 000 - $1500 = $38 500 inventory. This amount is reported in the business's balance sheet.

BALANCE SHEET (EXTRACT) AS AT 30 JUNE

Current assets	$
Inventory	38 500

ADJUSTING FOR AN INVENTORY GAIN

An inventory gain occurs when the number of units actually on hand is greater than the number of units shown on an inventory card.

This is an unusual event, as it seems that units of inventory have appeared from nowhere. In fact, inventory gains usually occur from recording errors, stocktaking errors, oversupply by the business's supplier or undersupply to the business's customers. An inventory loss may occur through shoplifting or some other form of theft, but gains usually come from errors in the accounting system.

Regardless of the cause, both inventory cards and the Inventory account must be adjusted to reflect the actual situation on balance day.

EXAMPLE 7.5

Coffee Mundo has an inventory gain of two units recorded on 31 May.

The physical stocktake reveals that 48 units were on hand, rather than 46 as indicated by the inventory card.

Inventory item: Classic coffee machine		Product code: CCM4300			Valuation: FIFO					
Supplier: Gilly Buyatt		IN			OUT			Balance		
Date	Details	Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
27 May	Invoice 255				5	40	200	25	40	
								28	42	2 176
28 May	Receipt 146				2	40	80	23	40	
								28	42	2 096
30 May	Invoice 265				4	40	160	19	40	
								28	42	1 936
31 May	Invoice 276				1	40	40	18	40	
								28	42	1 896
31 May	Memo 32	2	42	84				18	40	
								30	42	1 980

The adjustment for the inventory gain increases the number of units shown in the inventory card – from 46 (18 + 28) to 48 (18 + 30).

When there is a gain, units should be recorded in the inventory card at the latest purchase price recorded in the stock card. This is in response to the demands of faithful representation. As it's impossible to determine when the stock gain happened, it's reasonable to use the latest purchase price experienced by the business, as this is the most relevant cost price to the business at the end of the period.

As with an inventory loss, the adjustment for a gain must be recorded in the Inventory account.

EXAMPLE 7.6

The Coffee Mundo manager can't be sure which units were incorrectly recorded or wrongly supplied. The two units are recorded in the inventory card at the latest purchase price in the stock card ($42), and the adjustment is recorded in the Inventory account.

GENERAL JOURNAL

Date	Details	Dr	Crl
31 May	Inventory	84	
	Inventory gain		84
	Adjustment for inventory gain as revealed by physical stocktake (Memo 32)		

Inventory

		$			
31 May	Balance	25 000			
31 May	Inventory gain	84			

Inventory gain

		$			$
			31 May	Inventory	84

The adjusting entry for an inventory gain increases the asset account Inventory (debit) and the revenue account Inventory Gain (credit).

EXAMPLE 7.7

The Coffee Mundo Inventory account indicates that $25 000 of total inventory should have been on hand on 31 May, but this is inaccurate because an error occurred during the period. The debit to Inventory of $84 increases this asset account to the amount actually on hand.

RESPONDING TO INVENTORY GAINS AND LOSSES

Although it's possible for an inventory gain to occur in a particular inventory card, theft from businesses (particularly shoplifting) will usually be greater than any required adjustments for inventory gains. Therefore, when adjusting the overall inventory for a business, it's likely that an inventory loss may still exist.

The identification of inventory losses is a major advantage of the perpetual inventory system. Not only can the type of inventory missing be identified, but also the cost of any missing items.

Management then has the information available to make appropriate decisions. Repeated inventory losses of a particular product, or in a specific department, may indicate a serious problem that needs attention.

Perpetual inventory should provide up to date information about all movements of inventory. Management can then be informed about any problems that may exist within the structure of the business in relation to inventory.

7.6 CHECK YOUR UNDERSTANDING

WB PAGE 116

1 What is the purpose of a physical stocktake in the perpetual inventory system?
2 In relation to the Inventory account, describe the circumstances that exist for:
   a an inventory loss to occur
   b an inventory gain to occur
3 Make a list of the possible reasons why an inventory loss occurs.
4 State the double entry to record:
   a an inventory loss
   b an inventory gain.

7.7 DONATIONS OF INVENTORY FOR ADVERTISING PURPOSES

Chapter 6 discussed transactions that involved the donation of goods to a charity, a school or a local community organisation (page 115). These transactions are recorded in the general journal as below.

Advertising expense	Debit	
Inventory		Credit

As donations of goods reduce the inventory held by a business, the Inventory account is obviously affected. As always, if the Inventory account is affected, so too is the inventory card of the goods being donated.

FIGURE 7.9 General journal entry for inventory used for advertising purposes

GENERAL JOURNAL

Date	Details	Dr	Cr
1 May	Advertising	100	
	Inventory		100
	Owner donated two footballs to the local school @ $50 each (Memo 51)		

The general journal entry in Figure 7.9 records the donation of two footballs to a school. The narration refers to Memo 51, and the cost price was recorded as $50 each.

This information would have originated in the inventory card for the footballs. The FIFO assumption of inventory flow should be applied in the usual fashion. Figure 7.10 shows the inventory card entry for the donation.

FIGURE 7.10 Inventory card showing a donation of goods for advertising purposes

Inventory item: Footballs		Product code: ANFL6770			Valuation: FIFO					
Supplier: Sherrin Pty Ltd		IN			OUT			Balance		
Date	Details	Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
24 Apr	Invoice 757	20	52	1 040				10	50	500
								20	52	1 040
28 Apr	Receipt 121				2	50	100	8	50	400
								20	52	1 040
30 Apr	Receipt 124				4	50	200	4	50	200
								20	52	1 040
1 May	Memo 51				2	50	100	2	50	100
								20	52	1 040

The business had 24 footballs in inventory on 30 April. When the two footballs were donated on 1 May, it was assumed that they came from the $50 inventory, as usual under the FIFO method.

As a donation of goods isn't a common event, a memo should be made to take note of all the details.

7 CHAPTER REVIEW

KEY CONTENT

- **[7.1]** Inventory is the goods that a trading business buys and sells to make a profit in particular, the goods it has on hand or in its warehouse.
- **[7.1]** A physical stocktake involves counting the units of inventory on hand at a particular point in time. It should be conducted every reporting period.
- **[7.2]** The perpetual inventory process involves keeping records of all inventory movements throughout the reporting period, and updating the balance of inventory on hand continuously. While it requires significant additional work and record keeping, it provides a great deal of useful information to management.
- **[7.3]** The Inventory account is used to record a summary of all transactions affecting the inventory of a trading business. The balance of the Inventory account represents the total cost of inventory on hand at a point in time.
- **[7.4]** The cost price of the inventory units sold by a trading business must be entered in the general journal on a continuous basis throughout the period. Cost prices must therefore be recorded in some way. The identified cost method identifies the actual cost of each item of inventory when it's sold.
- **[7.4]** The first in, first out (FIFO) method assumes that the first inventory purchased is the first inventory sold. The FIFO method may not reflect the actual inventory flow over a period, but it's still an acceptable method of inventory valuation that reduces the amount of record keeping required.
- **[7.5]** An inventory card is a subsidiary record used to record transactions for one particular inventory item. An inventory card should contain all relevant details of the individual item. Inventory cards aren't part of the general ledger double entry process, and should be checked against the Inventory account.
- **[7.6]** A physical stocktake may reveal losses or gains in inventory when compared to inventory cards. The cards should be corrected to show the loss or gain, and the correction noted and recorded in the general ledger.
- **[7.7]** To keep track of the donation of goods for advertising purposes, the donation is recorded as a memo in the General journal, and the memo number is noted in the Details column of the inventory card.

CHAPTER 7 EXERCISES

1 Inventory sheets

WB PAGE 117

Josh Tabone has just completed a physical stocktake for his business, which deals in electrical goods. The following details have been provided.

Quantity	Inventory item	Cost $	Sale price $
45	Toasters	25.90	42.95
30	Stick blenders	22.00	36.50
12	Microwave ovens	140.00	249.00
10	Waffle makers	29.30	46.50
14	Sandwich presses	22.50	39.75

Using the above details, prepare a table to determine the value of inventory on hand.

2 Identifying cost

WB PAGE 117

Nathan Pilon owns Pile On Sport. He applies a mark up of 75% to all inventory held. He is trying to determine the cost prices of some of the goods sold and has asked for your assistance. The following selling prices have been identified for the specified inventory items.

Cricket bats	\$379.00
Footballs	\$105.00
Football jumpers	\$95.00
Soccer balls	\$55.00
Netballs	\$42.50

Using the identified cost method, determine the actual cost of inventory on hand at the end of the period. Hint: use the following formula:

Cost price = (selling price x 100) / (100 + mark-up)

3 Identifying cost

WB PAGE 118

The physical stocktake for Mordialloc Menswear reveals the following items on hand on 30 June 2023.

Item	Selling price	Mark-up applied
Ties	\$18	50%
Shirts	\$48	80%
Trousers	\$85	90%
Suits	\$290	120%

a Calculate the identified cost of each of the items listed.

b Prove your answers to question a by working from the cost prices back to the selling prices, using the mark ups specified.

4 Identifying cost v FIFO

WB PAGE 118

Hurstbridge Hardware purchases electric drills on several different occasions during 2023, as shown below.

21 Jan	Purchase lot #1	40 drills @ \$24.50
28 Mar	Purchase lot #2	30 drills @ \$24.90
26 Jun	Purchase lot #3	50 drills @ \$25.20
12 Aug	Purchase lot #4	40 drills @ \$25.20
30 Nov	Purchase lot #5	30 drills @ \$25.50

On 31 December 2023 a physical stocktake shows that there were 45 drills in inventory. An examination of the price tags on these 45 drills reveals the following:

- 20 drills had a cost price of \$25.50
- 20 drills had a cost price of \$25.20
- 5 drills had a cost price of \$24.50.

a Using the identified cost method of inventory valuation, calculate the value of the cost of sales for electric drills for the year ended 31 December 2023.

b What is the value of inventory on hand as at 31 December 2023 if this business used the identified cost method?

c Using the FIFO assumption of inventory flows, calculate the value of the cost of sales for electric drills for the year ended 31 December 2023.

d What is the value of inventory on hand as at 31 December 2023 under the FIFO method?

e Which method, identified cost or FIFO, will determine the most accurate profit for this business? Explain your answer fully.

SPREADSHEET

5 General ledger — perpetual inventory

WB PAGE 120

Docking's Collectables uses the perpetual inventory method. The owner of the business supplies the following details for the month of July 2023.

DOCKING'S COLLECTABLES: ACCOUNT BALANCES AS AT 1 JULY 2023

	$		$
Cash at bank	3 000	GST clearing	1 000
Accounts receivable	3 000	Accounts payable	7 000
Inventory	60 000	Mortgage loan	190 000
Shop fittings	28 000	Capital – J Docking	422 000
Premises	526 000		
	620 000		620 000

Transactions for July:

Jul	2	Sold goods that had cost $400 for $800 cash, plus GST of $80 (Receipt 951)
	4	Bought goods on credit from Media Wholesalers for $1200, plus GST of $120 (Invoice 2848)
	6	Sold goods on credit (Invoice 613) to P Di Venuto for $990, including GST of $90 (cost price $500)
	7	Paid assistant's wages $700
	11	The owner withdrew $300 in cash
	12	Sold goods for cash $590, plus GST of $59 (cost price $290)
	13	Sold goods on credit for $1000 to K O'Neill. GST added to invoice $100 (cost price $500)
	14	Paid assistant's wages $700
	16	Paid yearly insurance $970, plus GST of $97
	17	Bought goods from Media Wholesalers for $1430, including GST of $130 (Invoice 2918)
	19	Accounts receivable paid $680 (discount expense $20)
	20	The owner withdrew $740 in cash
	21	Paid assistant's wages $700
	23	Sold goods on credit to K O'Neill for $800, plus GST of $80 (cost price $400) and to P Manser for $450, plus GST of $45 (cost price $220)
	24	Sold goods for cash for $280, plus GST of $28 (cost price $150)
	25	Cash purchases of inventory $550, including GST of $50
	26	The owner donated $250 worth of inventory items to the Portland Pop Culture Expo for a fundraising raffle, on the condition that the business name is featured on all raffle tickets printed. The donated goods would usually sell for $450 (Memo 12)

27 Accounts receivable paid $290 (discount granted $10)
28 Paid assistant's wages $700
29 Purchased inventory from Animation Superstore for $1600, plus GST of $160 (Invoice 14342)
Paid accounts payable $2000
30 Cash purchases of inventory $640, plus GST of $64
Cash sales of $500 and $800, plus GST of $50 and $80, respectively (cost prices $250 and $400, respectively)

a Record the above transactions in general ledger accounts. (*Note*: Use one account for accounts receivable and one for accounts payable.)

b Extract a trial balance as at 31 July 2023.

c Explain two advantages of perpetual inventory.

6 Identifying inventory loss or gain

WB PAGE 125 SPREADSHEET

The following information relates to the business of Preston Paints on 31 December 2023.

Total sales for the period	$142 000
GST on sales	$14 200
Balance of the Inventory account in the general ledger	$27 600
Inventory on hand according to physical stocktake	$26 700

a Prepare a general journal entry to adjust the Inventory account for any inventory losses or gains that may have occurred.

b Post the entry from part **a** to the Inventory account and balance the account.

7 Identifying inventory loss or gain

WB PAGE 125 SPREADSHEET

The owner of Classic Trophies provides the following information about her business.

Balance of inventory as at 1 July 2022	$17 500
Credit purchases made during the year	$52 000
GST on purchases	$5 200
Total sales for the year – selling price	$95 000
– cost price	$43 600
GST on sales	$9 500
Total of physical stocktake on 30 June 2023	$25 700

a Prepare the Inventory account as it would appear in the general ledger of Classic Trophies. Your account should show all relevant entries, including adjustments for inventory losses or gains, and a final balance for inventory on hand at the end of the period.

b Inventory losses may cost retail businesses thousands of dollars each year. Suggest two different strategies the management of a retail store can adopt to reduce inventory losses.

SPREADSHEET

8 Recording in the general ledger

WB PAGE 126

The information listed below relates to the business of Sneakerboy.

Balance of inventory as at 1 November 2022	$34 200
Total of inventory sheets completed on 31 October 2023	$39 980
Credit purchases made during the year	$62 000
GST on credit purchases	$6 200
Cash purchases made during the year	$23 400
GST on cash purchases	$2 340
Cash sales for the year – selling price	$125 000
– GST collected	$12 500
– cost price	$63 600
Credit sales for the year – selling price	$32 890
– GST charged	$3 289
– cost price	$16 240

a Prepare the following general ledger accounts: Inventory, Cost of Sales, GST Clearing, and Inventory Loss (or Gain).

b Show how the adjustment for the inventory loss (or gain) would appear in the general journal.

c Give two possible reasons for the inventory loss (or gain).

SPREADSHEET

9 Identified cost v FIFO

WB PAGE 127

The manager of Third Dimension Print Supplies uses the FIFO method of valuing inventory. The following details relate to one inventory item, the AP540 printer.

Jul	1	Six printers in inventory with a cost price of $300
	3	Sold for cash two printers for $540 each, plus GST of $54 (Receipt 65)
	6	Purchased on credit 10 printers for $3200, plus GST of $320 (Invoice 9211)
	8	Sold one printer on credit for $560, plus GST of $56 (cost price $320) (Invoice 321) and one for $540 cash, plus GST of $54 (cost price $300) (Receipt 66)
	11	Sold three printers for cash for $550 each, plus GST of $55 (cost price $320) (Receipt 67)
	12	Sold one printer on credit for $560, plus GST of $56 (cost price $300) (Invoice 322)
	15	Purchased on credit eight printers for $335 each, plus GST of $33 (Invoice 9222)
	17	Donated a printer to the local school and received publicity in the school newsletter (cost price $335) (Memo 32)
	18	Cash sales: four printers for $560 each, plus GST of $56 (Receipts 68–71). Two printers cost $320 each; the other two cost $335 each.
	22	Sold one printer for cash $540, plus GST of $54 (cost price $300) (Receipt 72)
	24	Sold two printers that had cost $335 for $560 cash, plus GST of $56 each (Receipts 73–74)
	28	Purchased on credit 10 printers for $3400, plus GST of $340 (Invoice 9231)

30 Sold two printers on credit for $560, plus GST of $56 (cost price $340) (Invoice 323)

31 Physical stocktake identified 15 printers on hand, consisting of 4 with a cost price of $320, 3 @ $335 and 8 @ $340 (Memo 33)

- a Prepare an inventory card for the AP540 printer using the identified cost method.
- b Assuming that the information relating to cost prices wasn't available, prepare the inventory card using the FIFO assumption.
- c Using the identified cost system, prepare the following general ledger accounts using the transactions above: Inventory, Cost of Sales, and Sales.
- d Explain why the management of some trading businesses may decide to adopt FIFO to value inventory, rather than using the identified cost method.

10 Identified cost v FIFO

WB PAGE 130 SPREADSHEET

The following information relates to the purchases and sales of product number UZ927 during June 2023. On 1 June there were 10 units of UZ927 on hand with a cost price of $14 each.

Purchases			Sales		
Invoice 64	2 Jun	50 units @ $14 each	3 Jun	40 units @ $28 each	Invoice 132 (cost price $14)
Invoice 69	4 Jun	40 units @ $15 each	5 Jun	15 units @ $28 each	Invoice 135 (cost price 5 @ $14, 10 @ $15)
Invoice 84	9 Jun	50 units @ $15 each	12 Jun	30 units @ $30 each	Invoice 142 (cost price $15)
Invoice 98	24 Jun	50 units @ $16 each	19 Jun	50 units @ $30 each	Invoice 150 (cost price 10 @ $14, 40 @ $15)
			27 Jun	20 units @ $30 each	Invoice 164 (cost price 10 @ $15, 10 @ $16)
			29 Jun	20 units @ $32 each	Invoice 168 (cost price $16)

On 30 June a physical stocktake reveals 22 units on hand (Memo 12). Five of these units were coded as having a cost price of $14, with the remainder having a cost of $16.

- a Using identified cost, prepare an inventory card for product UZ927 for June.
- b The manager asks you to redraft the inventory card using the FIFO inventory assumption to show the differences in valuation methods.
- c Explain to the owner the effect on profit for June if the FIFO method is used instead of identified cost.
- d Using the transactions listed and your inventory card from part b, prepare the following general ledger accounts: Inventory, Cost of Sales, and Sales.

11 Inventory card: FIFO

WB PAGE 132

The following information was extracted from an inventory card prepared under the FIFO assumption. The inventory card includes all transactions in relation to this inventory item for April 2023.

INVENTORY CARD

		IN			OUT			Balance		
Date	Details	Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
9 Apr	Receipt 121				4	50	200	9	50	450
								20	52	1040
26 Apr	Invoice 812				5	50	250	4	50	200
								20	52	1040

a Explain the difference between the transactions that have been recorded on 9 April and 26 April.

b If there were no more transactions during April, how many units should be on hand as at 30 April?

c If a physical stocktake completed on 30 April revealed that there were 22 units in inventory, what is the value of the inventory loss or gain experienced by this business?

d Justify why an adjustment for inventory loss/gain should be made on 30 April, with reference to one qualitative characteristic and one accounting assumption.

SPREADSHEET

12 Inventory card: FIFO

WB PAGE 133

Lisa Grass is the owner of Perfumes Online. She provides the following extract from one of her inventory cards. It relates to a product named Temptation, which sells for $70 per bottle.

INVENTORY CARD: TEMPTATION PERFUME

		IN			OUT			Balance		
Date	Details	Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
22 May	Invoice 2919				3	35	105	2	35	70
27 May	Invoice 31456	50	37	1850				2	35	70
								50	37	1850

a On 30 May, Grass sold five bottles of Temptation perfume for cash at $70 per bottle (Receipt 143). Record this transaction in the inventory card, using the FIFO method of cost allocation.

b A physical count of inventory conducted on 31 May showed that 49 bottles of Temptation were still in inventory. Record the necessary adjustment in the inventory card, with reference to Memo 314.

c In light of the transaction recorded on 27 May, should Grass adjust her selling price of Temptation? Explain your answer fully, and suggest a new recommended selling price for this product.

13 Multiple inventory cards

WB PAGE 134 SPREADSHEET

Barsco's Barbequing sells two different models of gas grill, the Standard and the Deluxe. An inventory card is maintained for each model, using the FIFO method. On 1 July 2023 the general ledger included the following balances.

	$		$
Cash at bank	1 280	Accounts payable	3 000
Accounts receivable	3 000	GST clearing	2 000
Inventory	5 720	Mortgage loan	100 000
Premises	250 000	Capital	155 000
	260 000		260 000

The transactions for August 2023 are listed below:

Aug	1	Inventory on hand – Deluxe 10 @ $380, Standard six @ $320
	2	Cash sales of two Deluxe models for $650 each, plus GST of $65 (Receipts 101– 102)
	4	Cash sales of three Standard models for $620 each, plus GST of $62 (Receipts 103–105)
	7	Sold for cash three Deluxe models for $650 each, plus GST of $65 (Receipts 106–108)
	9	Purchased on credit eight Standard models at $340 per unit, plus GST of $34 (Invoice 535) from BBQs Plus
	11	Sold for cash three Deluxe models at $650 each, plus GST of $65 (Receipts 109–111)
	14	Sold for cash four Standard models at $620 each, plus GST of $62 (Receipts 112–115)
	17	Purchased 10 Deluxe models on credit for a total of $3900, plus GST of $390 (Invoice 919) from BBQs 'R' Us
	20	Sold for cash two Standard models for $620 each (plus GST of $62) (Receipts 116–117) and four Deluxe models at $660 each (plus GST of $66) (Receipts 118–121)
	22	Cash sales of one Standard model for $630 (plus GST of $63) and one Deluxe model for $660 (plus GST of $66) (Receipts 122–123)
	26	Cash sales of three Standard models at $693 each (including GST of $63) (Receipts 124–126)
	29	Purchased five Standard models on credit for $350 each (plus GST of $35) (Invoice 560) from BBQs Plus
	31	A physical stocktake showed that five Standard models and six Deluxe models were on hand (Memo 92)

a Prepare the individual inventory cards for the two models being sold.

b Adjust the inventory cards for any inventory losses or gains revealed by the stocktake.

c Prepare the following general ledger accounts for August 2023: Inventory, Cash at Bank, and Inventory Loss (or Gain).

d Balance the Inventory account and reconcile it with the two inventory cards prepared in part **a**.

SPREADSHEET

14 Multiple inventory cards

WB PAGE 136

Optima Action Cameras sells two models of professional DV cameras, the All Pro 8 and the All Pro 9. The perpetual inventory system is used to record all inventory movements.

	$		$
Cash at bank	2 350	Accounts payable	6 000
Accounts receivable	4 000	GST clearing	2 500
Inventory	13 650	Bank loan	18 000
Shop fittings	85 000	Capital	78 500
	105 000		105 000

The transactions for July 2023 are listed below.

Jul	1	Inventory on hand: All-Pro 8: five units in inventory; three with a cost price of $1150 and two with a cost of $1100; All-Pro 9: five units with a cost of $1600
	3	Sold for cash one All-Pro 9 camera for $2900, plus GST of $290 (Receipt 633) and two All-Pro 8 cameras for $2100 each, plus GST of $210 (Receipt 634)
	4	Purchased on credit six All-Pro 8 cameras for $1180 each, plus GST of $118 (Invoice 838) from Ace Cameras
	5	Cash sales of two All-Pro 8 cameras for $2200 each, plus GST of $220 (Receipt 635) and one All-Pro 9 camera for $2900, plus GST of $290 (Receipt 636)
	8	Purchased on credit six All-Pro 9 cameras for $1870 each, including GST of $170 (Invoice 923) (Ace Cameras)
	10	Sold for cash two All-Pro 9 cameras at $2900 each, plus GST of $290 (Receipt 637)
	16	Sold for cash three All-Pro 8 cameras for $2200 each, plus GST of $220 (Receipts 638–640) and two All-Pro 9 cameras for $3200 each, plus GST of $320 (Receipts 641–642)
	19	Sold for cash two All-Pro 8 cameras, one for $2200 and the other for $2000 (plus GST of $220 and $200, respectively) (Receipts 643–644)
	21	Purchased on credit 10 All-Pro 8 cameras for $1210, including GST of $110 (Invoice 852) (Ace Cameras)
	24	Sold one All-Pro 9 and one All-Pro 8 camera for cash: $3100, plus GST of $310 and $2100, plus GST of $210, respectively (Receipts 645–646)
	26	Sold three All-Pro 8 cameras: one for $2200 plus GST of $220; and the other two for $2150 each, plus GST of $215 (Receipts 647–649)
	28	Purchased eight All-Pro 9 cameras on credit for $13 200, plus GST of $1320. Total of Invoice 932: $14 520 (Ace Cameras)
	31	A physical stocktake showed that six All-Pro 8 cameras and 11 All-Pro 9 models were in inventory (Memo A21)

a Using the FIFO method, prepare the individual inventory cards for the two models being sold, including any adjustments required for inventory losses or gains.

b Prepare the following general ledger accounts: Inventory and GST Clearing.

c Balance the Inventory account and reconcile it with the two inventory cards prepared in part **a**.

d Balance the GST Clearing account. Under what classification would you report this account? Explain your answer fully.

15 Multiple inventory cards

WB PAGE 138 SPREADSHEET

Jacq Wade, the owner of Western Blinds, runs a small business that sells two sizes of venetian blinds as part of its range of products. The smaller size is designed for a single window and usually sells for $250 per unit, plus GST. The larger size is suitable for a double window and usually sells for $450 per unit, plus GST. Wade applies the FIFO method to all inventory cards maintained for her business. The following transactions occur during June 2023.

Jun	1	Inventory on hand: Singles: 25 blinds, 10 with a cost price of $120 and 15 with a cost price of $125. Doubles: 15 blinds, all costing $230 each
	3	Sold six single blinds for $250 each (cash) (Receipt 139
	5	Sold three double blinds for $450 each (cash) (Receipt 140)
	7	Sold five double blinds for $450 each (cash) (Receipt 141)
	9	Purchased 25 more double blinds at a cost of $240 each (Invoice 7546)
	11	Sold six single blinds for $260 each (cash) (Receipt 142)
	14	Sold 10 single blinds for $2400 and five double blinds for $2150 to Carlton College (Invoice 1333)
	17	Purchased 30 single blinds for $127 each (Invoice 7566)
	19	Wade donated two single blinds to the local cricket club. The club secretary has agreed to hang a sign in the clubrooms to advertise Wade's business (Memo 82)
	20	Sold four single blinds for $250 each (cash) (Receipt 143)
	23	Sold six double blinds for $450 each (cash) (Receipt 144)
	25	Sold one single and one double blind for a total of $700 (Receipt 145)
	28	Sold three double blinds for $1300 in total (Invoice 1334)
	30	A physical stocktake revealed the following quantities on hand at the end of the month: single blinds: 24, double blinds: 16 (Memo 83)

a Prepare an inventory card for each of the two types of blinds sold by Western Blinds.

b Adjust your inventory cards for any inventory losses or gains revealed by the 30 June stocktake.

c If Western Blinds only sold these two inventory items, what should the balance of the Inventory account be as at 30 June 2023?

SPREADSHEET

WB PAGE 139

16 Multiple inventory cards

Collingwood Cases sells a range of briefcases to corporate clients. Its inventory includes both a vinyl briefcase and a leather version. On 1 June 2023 the business had the following inventory on hand: 24 vinyl cases and 50 leather cases. The inventory cards for these two items included the following details at the start of the month.

Vinyl cases:	4 @ $30	$120	Leather cases:	20 @ $60	$1200
	20 @ $32	$640		30 @ $64	$1920
	24	$760		50	$3120

The following transactions occur during June 2023. *Note*: GST has *not* been included in the prices stated below.

Jun	2	Sold six vinyl cases for $60 each (cash) (Receipt 593)
	3	Purchased on credit 20 vinyl cases at a cost of $33 each (Invoice 132)
	4	Sold eight leather cases for $99 each (cash) (Receipt 594)
	5	Sold 14 leather cases for $99 each (cash) (Receipt 595)
	7	Sold 10 vinyl cases for $62 each (Receipt 596)
	9	Sold two leather cases for $105 each (Receipt 597)
	11	Sold 10 vinyl cases for $62 each (Receipt 598)
	14	Purchased on credit 20 leather cases @ $65 each (Invoice 142)
	16	Sold 10 leather cases and five vinyl cases for $102 and $65 each, respectively (cash) (Receipt 599)
	18	Sold four vinyl cases for a total of $260 (Receipt 600)
	20	Sold eight leather cases for $105 each (cash) (Receipt 601)
	23	Sold five vinyl cases for $65 each and 12 leather cases for $105 each (cash) (Receipt 602)
	24	Purchased on credit 20 vinyl cases for $33 each and 20 leather cases for $64 each (Invoice 4324)
	25	Sold five vinyl cases for $65 each (cash) (Receipt 603)
	28	Sold three leather cases for $105 each (cash) (Receipt 604)
	30	Physical stocktake completed. Quantities on hand: vinyl cases 15; leather cases 28 (Memo 321)

a Prepare an inventory card for June for each of the two types of cases sold by the business.

b Make any adjustments required as a result of the physical counting of inventory on 30 June.

c Comment on the owner's level of control over his inventory, given the results of the 30 June stocktake.

d Identify one problem created by Collingwood Cases in relation to its buying of inventory. Explain why this may affect its profit performance.

ETHICAL CONSIDERATIONS

WB PAGE 141

Rosa Mondio is the owner of Phonelife, a small business that sells a range of smartphone accessories. When she purchases inventory, Rosa usually applies a mark up of 100% on the cost price. She has just received a delivery from her main supplier, a very large company. The invoice she received with the goods clearly states:

- *5 phone cases @ $10.00 each, plus $1.00 GST*

However, when Rosa opened the box, she discovered that there were five *dozen* phone cases packed in the box! She found her copy of her order form and it clearly states 5 units, not 60. She's not sure what she should do. The following are her options:

a She could say nothing and make some extra money. Fifty five free phone cases will generate a tidy profit. Business has been slow recently and this would certainly help. After all, the supplier is such a big company they can afford it!

b She could keep some of the cases and advise the supplier that 25 extras were delivered. This would allow her to make some extra profit, without being too greedy.

c She could notify the supplier immediately. Mistakes can be made when goods are shipped out, and it isn't right to keep the goods.

What would you do in this situation? Discuss the pros and cons of the various options, and make a recommendation to Rosa as to what she should do.

CHAPTER CHECKLIST

Now that you have finished Chapter 7, double check your progress.

Are you ready for your Unit 3 assessment?

I have …

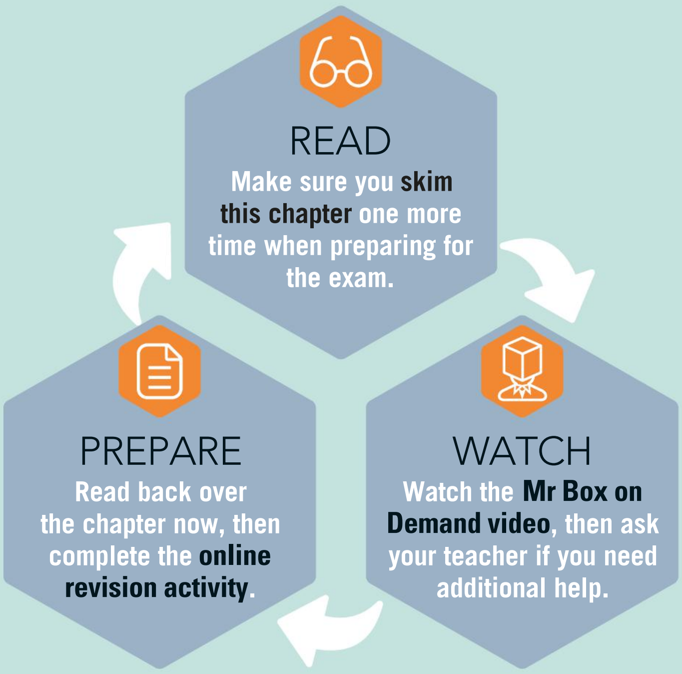
- completed all 'Check Your Understanding' questions
- completed all exercises
- completed all end of chapter activities
- handed in my workbook for marking.

I understand …

- the General Journal and General Ledger and their use in recording transactions, both manually and using ICT, including:
  - credit sales of inventory
  - credit purchases of inventory
  - inventory loss or gain
  - inventory used for advertising purposes
- inventory cards using the First In, First Out (FIFO) and Identified Cost methods for:
  - inventory sold
  - inventory purchased
  - inventory used for advertising
  - inventory loss or gain.

I can …

- identify and manually record financial data in the General Journal, General Ledger and inventory cards
- use ICT to record financial data in the General Journal, General Ledger and inventory cards and to construct graphical representations.



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8 SALES RETURNS AND PURCHASES RETURNS

In Chapter 7 you learnt about inventory, and how trading firms function by buying and selling their inventory. Not all sales are final, though. Sometimes customers return items, or firms return stock to their suppliers. Those returns also need to be recorded by the accounting system.

In this chapter you will learn how to record returns in the general journal and general ledger, and about the effect of returns on inventory cards.

LEARNING OBJECTIVES

By the end of this chapter, you will be able to:

- explain the purpose of a credit note **[8.1]**
- describe when a credit note will be issued **[8.1]**
- prepare general journal entries to record the return of goods to suppliers **[8.2]**
- post entries for the return of goods to the general ledger **[8.2]**
- prepare general journal entries to record the return of goods by customers **[8.3]**
- post entries for sales returns to the general ledger **[8.3]**
- explain why two double entries are required when recording sales returns under perpetual inventory **[8.4]**
- record sales returns and purchases returns in inventory cards, using the identified cost and FIFO methods **[8.5]**

UNIT 3 – PROGRESS 1 2 3 4 5 6 7 8 9 10 11 12 13

8.1 Credit notes for returns

8.2 Purchases returns

8.3 Sales returns

8.4 Recording returns in inventory cards

8.5 From inventory cards to the general journal

Chapter review and exercises

8.1 CREDIT NOTES FOR RETURNS

A trading firm may both purchase and sell goods on credit. It receives a purchase invoice from a supplier when it buys goods on credit. It issues a sales invoice when it provides goods to a customer on a credit basis.

In some circumstances, invoiced goods are considered unsatisfactory and are returned to the supplier. They may be unsatisfactory because they are:

- the wrong size
- the wrong brand
- the wrong colour or style
- delivered late and are no longer required
- damaged or faulty.

This may occur either when goods are bought from a supplier or when they are sold to a customer. In either situation, the goods may be replaced, or a credit note may be issued.

credit note
source document used to acknowledge the return of goods

A **credit note** is a business document used to acknowledge that goods have been returned. Figure 8.1 shows an example.

FIGURE 8.1 A typical credit note

Wholesale Trading
123 Power Avenue Balwyn VIC 3103

CREDIT NOTE no. 3389
Date: 10/7/22

Credit: Elsternwick Electricals
898 Nepean Highway
Elsternwick VIC 3185

Reason: **Damaged in transit**

Description	Quantity	Unit price	Subtotal	GST	Total
Leadlight touch lamps	4	$42.50	$170.00	$17.00	$187.00
Totals			$170.00	$17.00	$187.00

Approved: Ken Sparkie

Wholesale Trading for all things electrical

Total (excluding GST)	$170.00
Total GST payable	$17.00
Total amount payable (including GST)	$187.00

8.1 CHECK YOUR UNDERSTANDING

WB PAGE 143

1 Explain the purpose of a credit note.
2 List four reasons why a credit note may be issued.

8.2 PURCHASES RETURNS

In the credit note in Figure 8.1, Elsternwick Electricals returned damaged goods (a **purchases return**) to the supplier, Wholesale Trading. The effect of this document is that Elsternwick Electricals debits the Accounts Payable account of Wholesale Trading, reducing the amount owed to the supplier. The credit note reduces the debt of Elsternwick Electricals by $187, which is the amount the supplier charged the business when the purchase invoice was originally issued for these goods.

purchases returns return of goods by a business to its supplier (accounts payable)

In addition to the cost price, the GST charged on the credit purchase must be recorded on the credit note.

The following general ledger entry shows a summary. On the left is the double entry for the original credit purchase, with the return of the damaged goods shown on the right.

Credit purchase (invoice)	$	Purchases return (credit note)	$
Inventory	170 Dr	Accounts payable	187 Dr
GST clearing	17 Dr	Inventory	170 Cr
Accounts payable	187 Cr	GST clearing	17 Cr

The summary shows the entries required when all the goods purchased from accounts payable are subsequently returned and a credit note is granted.

In some situations, only some of the goods are returned; for example, a business purchases 10 items and only two of them need be returned. In this case, identify the cost price of only the goods being returned, along with the relevant GST that was charged on them at the time of purchase.

As with all business documents, credit notes must be entered in the general journal before being posted to general ledger accounts. Using the details in Figure 8.1, the return of goods by Elsternwick Electricals would be recorded in their general journal as shown in Figure 8.2.

FIGURE 8.2 **General journal entry to record purchases returns**

GENERAL JOURNAL

Date	Details	Dr	Cr
10 Jul	Accounts payable â€“ Wholesale Trading	187	
	Inventory		170
	GST clearing		17
	Return of damaged goods to supplier (Credit note 3389)		

Faulty stock is returned to the supplier and a purchases return is recorded.

RECORDING CHANGES TO INVENTORY

inventory account
general ledger account used to record a summary of all transactions affecting inventory

A business using the perpetual inventory method must record all movements of inventory via the **Inventory account**. When goods were first purchased from the wholesaler, the Inventory account would be debited, with the credit entry being made to the Accounts Payable account. If goods are returned, the opposite entry is made. The debit to the Accounts Payable account reduces the liability of the firm, while the credit to Inventory reduces the cost of inventory on hand.

In the general ledger of Elsternwick Electricals, the outstanding debt to Wholesale Trading as at 1 July was $3000, and the balance of inventory on 1 July was $25 000. The posting of the return of damaged goods results in the ledger account entries shown in Figure 8.3.

FIGURE 8.3 General ledger entries for a purchases return

Accounts payable – Wholesale trading

		$			$
10 Jul	Inventory/GST clearing	187	1 Jul	Balance	3 000

Inventory

		$			$
1 Jul	Balance	25 000	10 Jul	Accounts payable	170

GST clearing

		$			$
			10 Jul	Accounts Payable	17

The Accounts Payable account shows the effect of the credit note received from the supplier. The obligation to the account payable has been reduced by the debit entry, so Elsternwick Electricals now owes $187 less to its supplier.

Similarly, inventory is reduced. The credit entry to the Inventory account reduces the inventory on hand, as the firm no longer possesses the goods. The credit entry to the GST Clearing account cancels out the debit entry that would have been made to that account at the time of purchase.

8.2 CHECK YOUR UNDERSTANDING

WB PAGE 143

1. Explain why the GST Clearing account should be credited when goods are returned to a supplier.
2. 'If a credit note has to be issued by a supplier, you should change suppliers.' Do you agree? Discuss.
3. A business owner is unsure what to do with credit notes issued by their suppliers. Explain how these documents could be used to evaluate satisfaction with the inventory provided by accounts payable.

8.3 SALES RETURNS

In the previous example, a credit note was received by Elsternwick Electricals from its supplier. Keep in mind that Elsternwick Electricals can also issue credit notes to its accounts receivable.

Consider the following transactions between this business and one of its credit customers:

- 1 Aug: Sold goods on credit to Brimbank Grammar School, of four light fittings for $80 each, plus GST of $8 each
- 5 Aug: Brimbank Grammar School returned one light fitting because it was the wrong size. The customer was allowed a full credit of $80 (plus GST of $8).

Note: Elsternwick Electricals applies a mark up of 100% to all its inventory. Therefore, the cost of sales on 1 August, using *identified cost*, would be $160 (4 × $40), and the return on 5 August would have a cost price of $40.

When the return of goods occurs on 5 August, a credit note will be issued, and a general journal entry will be made to record the **sales returns** (see Figure 8.4).

sales returns
return of goods by a customer (accounts receivable) to a business

FIGURE 8.4 General journal entry to record a sales return

GENERAL JOURNAL

Date	Details	Dr	Crl
5 Aug	Sales returns	80	
	GST clearing	8	
	Accounts receivable – Brimbank Grammar		88
	Inventory	40	
	Cost of sales		40
	Return of incorrect light fitting (Credit note 3389)		

RECORDING SALES RETURNS

When a customer returns goods for credit, two double entries are required.

Under perpetual inventory, two double entries are made when goods are sold: one to record the selling price and the other to record the cost price. This is also the case when goods are returned, as in the above example.

When the customer returned the light fitting because it was the wrong size, two events had to be recorded.

- The Accounts Receivable account had to be reduced by the amount the customer was originally charged ($80 + $8 GST = $88). This results in debits to the Sales Returns and GST Clearing accounts and a credit entry to the Accounts Receivable account.
- The goods returned by the customer become part of the firm's inventory again. To record this, the cost price entry made when the goods were sold has to be reversed. Inventory is debited to increase the asset account, and Cost of Sales is credited. This credit entry negates the debit to Cost of Sales that would have been recorded when the sale took place.

The following summary demonstrates these two events.

Credit sale of goods			Sales returned by a accounts receivable		
Accounts receivable	Dr		Sales returns	Dr	
Sales		Cr	GST clearing	Dr	
GST clearing (with selling price)		Cr	Accounts receivable (with selling price)		Cr
Cost of sales	Dr		Inventory	Dr	
Inventory (with cost price)		Cr	Cost of sales (with cost price)		Cr

The entries in the general ledger would appear as shown in Figure 8.5. (Note that four units were sold on credit, but only one was returned.)

FIGURE 8.5 General ledger entries for a sales return

Inventory

		$			$
1 Aug	Balance	10 000	1 Aug	Cost of sales	160
5 Aug	Cost of sales	40			

Cost of sales

		$			$
1 Aug	Inventory	160	5 Aug	Inventory	40

Accounts receivable – Brimbank Grammar

		$			$
1 Aug	Sales/GST clearing	352	5 Aug	Sales returns/GST clearing	88

Credit sales

		$			$
			1 Aug	Accounts receivable – Brimbank Grammar	320

Sales returns

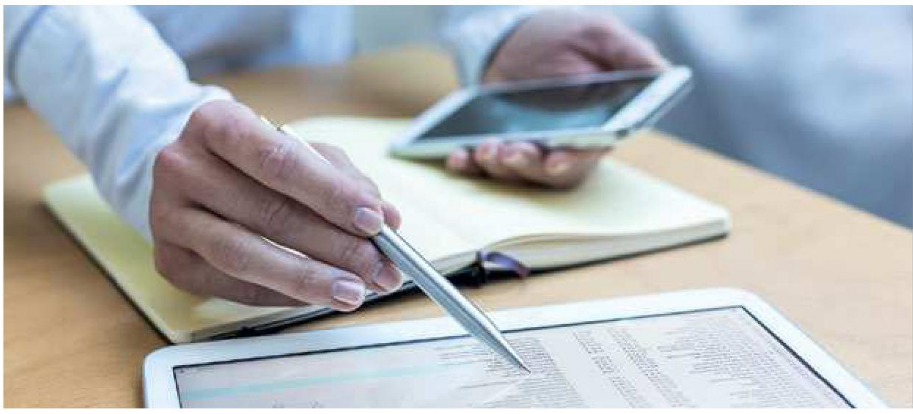
		$			$
5 Aug	Accounts receivable – Brimbank Grammar	80			

GST clearing

		$			$
5 Aug	Accounts receivable – Brimbank Grammar	8	1 Aug	Accounts receivable – Brimbank Grammar	32

DON'T!
When recording a sales return, do not debit the sales account. Make sure that you use the sales returns account.

The correct amount of GST must be recorded on all sales returns. When the four units were sold at $80 each, the GST charged to the accounts receivable would have been $32 ($8 per unit × 4 = $32 GST). When one item was returned, the related GST was the $8 per unit originally charged to the accounts receivable.



Two double entries are required to record a sales return for credit.

THE SALES RETURNS ACCOUNT

The selling price of the goods returned ($80) was debited to a Sales Returns account in the general ledger. This entry could be debited to the Sales account instead, with sales adjusted to equal the revenue earned after returns have been recorded.

However, best accounting practice is to create a separate account for sales returns, which can then be deducted from sales revenue in the income statement. This provides additional information for management about customer satisfaction. If only a net sales figure was reported at the end of the period, the income statement wouldn't show any information about the level of returns by customers. By having a separate account for sales returns, such as in the example below, this additional information can also be reported.

INCOME STATEMENT (EXTRACT)

Revenues	$	$
Sales	100 000	
Less: Sales returns	5 000	95 000

The reporting of sales returns in this way allows the reader of the report to see the full picture in terms of the firm's sales performance. Although $100 000 worth of goods was sold during the year, goods valued at $5000 were returned by customers.

This can be expressed as a percentage to gauge the level of customer satisfaction. During this reporting period, 5% of all sales ($5000/$100 000) were returned. If this percentage decreases over time, it may indicate that customer satisfaction has improved. If it increases, it indicates that more customers were unhappy with the business.

8.3 CHECK YOUR UNDERSTANDING

WB PAGE 144

1 Explain why two double entries are required when a credit note is issued to an accounts receivable by a trading firm using perpetual inventory.

2 State the two double entries required in the circumstances outlined in Question **1**.

3 When goods are returned by customers, a debit could be made to Sales or to Sales Returns. Explain why the use of a Sales Returns account is preferred.

4 Should a business owner be concerned if they have issued many credit notes in one reporting period? Explain your answer fully.

8.4 RECORDING RETURNS IN INVENTORY CARDS

Returns affect the amount of inventory held by a business, so they must be recorded in the inventory cards maintained by the firm. Returns of inventory to a supplier decrease the inventory on hand, while sales returns increase the inventory held at a given date.

To record returns, the two types of transactions can simply be related to the headings used in inventory cards. As returns to suppliers mean that goods are leaving the business, purchases returns will be recorded in the Out column. If accounts receivable return goods to a business, this means that goods are coming back into the firm and therefore should be recorded in the In column.

The other method is to show all debits to the Inventory Control account in the In column of an inventory card, while credits to the Inventory Control account can be traced to the entries in the Out column.

HOW TRANSACTIONS AFFECT INVENTORY CARDS

Table 8.1 shows the various transactions covered so far in this text. The entries on the debit side relate to the In column of the inventory cards maintained by the business. The credit entries relate to the Out column of the business's inventory cards.

The two entries affected for returns of inventory (sales returns and purchases returns) are numbers 4 and 7.

TABLE 8.1 How transactions affect inventory

DEBIT		CREDIT	
1	Balance	6	Cost of sales
2	Cash at bank	7	Accounts payable
3	Accounts payable	8	Drawings
4	Cost of sales	9	Inventory loss
5	Inventory gain	10	Advertising
		11	Balance

1 The *opening balance* of inventory is on the debit side because it is an asset account.

2 *Cash at bank* records the cash purchases of inventory made during the period.

3 *Accounts payable* is the cross reference for the total credit purchases made during the period.

4 *Cost of sales* is the cost price of sales returns approved for the period. Goods are coming back into the business, so inventory increases and a debit entry is made.

5 *Inventory gain:* if the physical stocktake reveals that an inventory gain has occurred, a debit is made to Inventory to adjust the account up to the correct amount.

6 *Cost of sales:* if a business sells on credit in addition to cash sales, there may be multiple entries named 'Cost of sales'.

7 *Accounts payable* is used to record the returns of inventory to suppliers. Inventory is leaving the business and being returned to the supplier, so Inventory must be credited.

8 *Drawings* represents withdrawals of inventory by the proprietor.

9 *Inventory loss* is a balance day adjustment for losses revealed by the stocktake.

10 *Advertising* represents inventory given to others for advertising purposes.

11 *Balance* is the amount of inventory on hand at the end of the period.

RECORDING PURCHASES RETURNS IN INVENTORY CARDS

We have established how sales returns and purchases returns affect the Inventory account. The final question now is what price to record in an inventory card when a return occurs.

Consider the inventory card in Figure 8.6.

FIGURE 8.6 **Inventory card showing a credit purchase**

Inventory item: Classic chairs		Valuation method: FIFO								
Date	Details	Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
1 Aug	Balance							5	12	60
2 Aug	Invoice 78	10	13	130				5	12	60
								10	13	130
3 Aug	Receipt 213				2	12	24	3	12	36
								10	13	130

This inventory card includes an entry for a credit purchase on 2 August, when 10 chairs were purchased (Invoice 78).

On 3 August, two of these chairs are found to be damaged and are returned to the supplier. The supplier approves the return and issues Credit note 12 for $26 (2 × $13). The inventory card entry required is shown in Figure 8.7.

Return of inventory must be recorded in inventory cards.

FIGURE 8.7 **Inventory card showing a purchases return**

Inventory item: Classic chairs		Valuation method: FIFO								
Date	Details	Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
1 Aug	Balance							5	12	60
2 Aug	Invoice 78	10	13	130				5	12	60
								10	13	130
3 Aug	Receipt 213				2	12	24	3	12	36
								10	13	130
3 Aug	Credit note 12				2	13	26	3	12	36
								8	13	104

It is important to note that purchases returns have *nothing* to do with the FIFO assumption. This is because the supplier will always determine the actual value of any credit allowed when goods are returned, which will be evidenced by the credit note they issue.

You should always record a purchases return at the value determined by the supplier's credit note, then adjust the Balance column as required. Once the inventory card has been adjusted, you can use the FIFO assumption to determine the cost of sales when goods are sold.

RECORDING SALES RETURNS IN INVENTORY CARDS

The method of recording sales returns is different from that used to record purchases returns.

The earlier example showed how the dollar value of a purchases return is determined by the supplier. However, when goods are sold, either the identified cost method or the FIFO assumption is used to determine the cost of sales to be recorded. This is an internal decision by management, and the dollar value isn't included on any source document.

When goods are sold to a credit customer, the selling price is stated on the sales invoice. The inventory card is used to record the cost price of the goods sold.

The question now is: what is the cost price of a sales return? If the identified cost method is being used, the sales transaction would have to be identified in the inventory card, so that the cost price of the sales return can also be identified.

Consider the inventory card in Figure 8.8.

FIGURE 8.8 Inventory card using identified cost

Inventory item: Office desks		Valuation method: Identified cost								
Date	Details	Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
1 Aug	Balance							2	100	200
								5	120	600
2 Aug	Invoice 201				2	120	240	2	100	200
								3	120	360
3 Aug	Invoice 202				2	100	200	3	120	360

One office desk was returned by an account receivable on 4 August, and the customer was granted full credit. The original sale to this customer was made on 2 August. The identified cost method is being used, so the order of sales and sales returns isn't important because the actual cost of the items must be identified. Therefore, if the sale was made on 2 August, the actual cost price of the sales return will be $120.

The inventory card would be adjusted as shown in Figure 8.9.

FIGURE 8.9 Inventory card using identified cost

Inventory item: Office desks		Valuation method: Identified cost								
Date	Details	Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
1 Aug	Balance							2	100	200
								5	120	600
2 Aug	Invoice 201				2	120	240	2	100	200
								3	120	360
3 Aug	Invoice 202				2	100	200	3	120	360
4 Aug	Credit note 32	1	120	120				4	120	480

SALES RETURNS AND THE FIFO METHOD

The process of recording a sales return at cost price is straightforward when using the identified cost method. However, if the FIFO assumption is being applied, it's a little more difficult.

The inventory card in Figure 8.10 includes a credit sale of six office chairs for $65 each on 4 September.

FIGURE 8.10 **Inventory card showing a credit sale**

Inventory item: Office chairs		Valuation method: FIFO								
Date	Details	Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
1 Sep	Balance							4	30	120
								10	32	320
4 Sep	Invoice 23				4	30	120			
					2	32	64	8	32	256

This business sold six chairs on 4 September. Invoice 23 shows the selling price as $65 per chair. The FIFO assumption has been applied in the inventory card and has determined that four chairs had a cost price of $30 each, and two had a cost price of $32 each.

The problem arises when some, but not all, of these chairs are returned.

For example, on 5 September one chair is returned and a full credit is provided to the customer. Credit note 5 is issued, but this only shows the credit allowed to the accounts receivable, which would be the selling price of $65. The problem is in relation to the cost price and how to adjust the inventory card in Figure 8.10.

The correct approach is simply to reverse the FIFO approach in the inventory card; that is, start at the last inventory issued and work backwards through the inventory card.

So, if one chair was returned, the entry would be as shown in Figure 8.11.

FIGURE 8.11 **Inventory card showing a sales return**

Inventory item: Office chairs		Valuation method: FIFO								
Date	Details	Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
1 Sep	Balance							4	30	120
								10	32	320
4 Sep	Invoice 23				4	30	120			
					2	32	64	8	32	256
5 Sep	Credit note 5	1	32	32				9	32	288

As goods are coming back into the business, the required entry is made in the In column. The cost price chosen was the last one issued in the Out column on 4 September ($32). This returns the last unit issued into the inventory card, with the balance returning to nine units on hand valued at $32 each.

If two chairs were returned on 5 September, rather than just one, the same approach is used; simply rebuild the inventory card as if the goods had never been sold. The business would again have the 10 units on hand at $32 each, as shown in Figure 8.12.

FIGURE 8.12 **Inventory card showing a sales return**

Inventory item: Office chairs		Valuation method: FIFO								
Date	Details	Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
1 Sep	Balance							4	30	120
								10	32	320
4 Sep	Invoice 23				4	30	120			
					2	32	64	8	32	256
5 Sep	Credit note 5	2	32	64				109	32	320

Finally, if this business accepted a return of three chairs on 5 September, it is important that the third chair is *not* recorded at $32.

The balance of the inventory card on 1 September showed that four chairs cost $30 each and 10 units cost $32 each. If a return of multiple units occurs, the balance of the inventory card should be resurrected, but don't create more units than was shown in the inventory card on a previous date. Once the 10 units worth $32 have been returned, the assumption is that the other goods returned must be from the $30 inventory.

Therefore, if three chairs were returned, the inventory card would be adjusted as shown in Figure 8.13.

FIGURE 8.13 Inventory card showing a sales return

Inventory item: Office chairs		Valuation method: FIFO								
Date	Details	Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
1 Sep	Balance							4	30	120
								10	32	320
4 Sep	Invoice 23				4	30	120			
					2	32	64	8	32	256
5 Sep	Credit note 5	1	30	30				1	30	30
		2	32	64				10	32	320

If a sales return involves multiple cost prices, always return the cost prices to the inventory card in their original order. From Figure 8.13, we can see that the business now has one chair with a cost price of $30, while the other chairs all have a cost of $32. When the next sale is made, and FIFO is applied, the first cost price to be used again is $30.

The main difference between a sales return and a purchases return lies in how the FIFO assumption is applied. If a purchase is returned, the supplier determines the credit allowed. This is because the supplier also decided what price would be charged when the invoice was issued.

However, when a sale is made and FIFO is applied, a business doesn't really know the actual cost price of the item being sold. As FIFO involves an assumption about cost prices, when a purchase is returned the cost price entry in an inventory card is also an assumption.

When a sale is made, FIFO assumes that the first goods bought are the first goods sold. When a sales return occurs, work backwards through the FIFO assumption and resurrect the inventory card as if the sale never took place. This method helps to ensure that FIFO is applied properly at all times.

8.4 CHECK YOUR UNDERSTANDING

WB PAGE 145

1 How is the value of a purchases return determined? Explain your answer fully.
2 How is the cost price of a sales return determined by a business that applies the FIFO assumption of inventory flow?
3 'The cost price of a sales return under the identified cost method may be different from the cost price determined under the FIFO method.' Do you agree with this statement? Explain your answer fully.

8.5 FROM INVENTORY CARDS TO THE GENERAL JOURNAL

Under the FIFO system, the cost prices of all sales are determined within the inventory cards. This amount is then recorded in the general journal when a sale is made. When the cost price is recorded in the journal, the Inventory account will decrease with the usual cost of sales entry.

The following extended example, using the inventory card for a Deluxe Bluetooth party speaker shown in Figure 8.14, demonstrates this flow of information.

FIGURE 8.14 Inventory card data for Bluetooth speaker

Inventory item: Deluxe Bluetooth party speaker		Product code: DBS1320			Valuation: FIFO					
Supplier: Modern Electrics		IN			OUT			Balance		
Date	Details	Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
1 Jun	Balance							10	125	1 250
4 Jun	Receipt 121				2	125	250	8	125	1 000
8 Jun	Invoice 646	10	130	1 300				8	125	1 000
								10	130	1 300
11 Jun	Receipt 122				1	125	125	7	125	875
								10	130	1 300
15 Jun	Invoice 828				5	125	625	2	125	250
								10	130	1 300
18 Jun	Credit note 17	1	125	125				3	125	375
								10	130	1 300
19 Jun	Credit note 22				1	125	125	2	125	250
								10	130	1 300
25 Jun	Invoice 830				2	125	250			
					2	130	260	8	130	1 040
30 Jun	Memo 71				1	130	130	7	130	910
30 Jun	Memo 72				2	130	260	5	130	650

The entries in this inventory card create the following general journal entries in June:

- purchases of inventory on 8 June
- credit sales of inventory on 15 June and 25 June
- cash sales of inventory on 4 June and 11 June
- sales return of one unit on 18 June
- purchases return of one unit on 19 June
- drawings of inventory on 30 June
- inventory loss of two units on 30 June.

EXAM SUCCESS
When new inventory is purchased, make sure that the cost prices are kept in the order they were purchased.

Note the connection between the inventory card and the general journal. The entries in the In column on 8 June are noted with an invoice number. This number indicates that the goods were purchased on credit. The credit sales made during the month are on

All information about the sales of this speaker should move from the inventory card to the general journal.

15 and 25 June, and these entries appear in the Out column. According to the inventory card, on 15 June there were five units sold at a cost of $125 each. The entry made in the journal for this transaction would show a cost price entry of $625 (5 × $125).

We can see that this business also sells its inventory for cash. In June there were two cash sales, as noted in the Out column. The cost prices of these sales can be traced back to the inventory card for the Bluetooth speaker. For the entry on 11 June, the firm has applied FIFO; one unit was sold and was allocated the cost of $125.

There are two entries towards the end of the month, evidenced by memo numbers 71 and 72. Memos may be used to record drawings of inventory, inventory used for advertising purposes, and inventory losses and gains. In this example, the owner withdrew one unit for personal use (Memo 71) and then recorded an inventory loss of two units at the end of the month (Memo 72).

A physical stocktake, done at the end of the month, revealed only five units on hand. As the inventory card indicated that seven units should be in inventory, two were found to be missing. The inventory card was then adjusted to equal the actual amount on hand.

The final process is the posting of the journal to the general ledger accounts of the business. As the general journal entries have been covered in detail already, only the inventory account is presented here.

Inventory

		$			$
1 Jun	Balance	1250	4 Jun	Cost of sales	250
8 Jun	Accounts payable	1300	11 Jun	Cost of sales	125
18 Jun	Cost of sales	125	15 Jun	Cost of sales	625
			19 Jun	Accounts payable	125
			25 Jun	Cost of sales	510
			30 Jun	Drawings	130
			30 Jun	Inventory loss	260
			30 Jun	Balance	650
		2675			2675
1 Jul	Balance	650			

This ledger account completes the picture regarding the cost prices of inventory sold:

- The FIFO assumption is used within inventory cards to determine the cost prices at the time of sale.
- These cost prices are recorded in the general journal, along with their selling prices.
- These selling prices are verified with the source documents used: invoices, receipts or EFT documents.
- After the general journal entries are prepared, they can be posted to the general ledger accounts.

EXAM SUCCESS
Practise using a template for the inventory account. There are many transactions to remember!

8.5 CHECK YOUR UNDERSTANDING

WB PAGE 146

1 'The cost price of a sales return isn't shown on a source document.' Do you agree with this statement? Explain your answer fully.

2 A memo may be used to record a variety of transactions involving inventory. State four examples of such transactions.

3 'It doesn't matter if a business uses FIFO or Identified cost when it returns damaged inventory to a supplier. The cost price to be recorded is exactly the same.' Do you agree? Explain fully.

8 CHAPTER REVIEW

KEY CONTENT

- **[8.1]** When unsatisfactory goods are returned, a business may issue a credit note. This is a source document that records the financial data regarding the return.
- **[8.2]** A purchases return is the return of goods by a business to its supplier (accounts payable). The return must be recorded in the general journal as a debit to Accounts payable and a reduction to the Inventory account.
- **[8.3]** A sales return is the return of goods by a customer (accounts receivable) to a business. This again requires two entries in the general journal a reduction to Accounts receivable and an increase in the Sales return account. A second entry decreases Cost of sales and increases the Inventory account.
- **[8.4]** Returns must also be recorded in inventory cards maintained by the firm. Returns of inventory to a supplier decrease inventory on hand, while sales returns increase inventory on hand.
- **[8.5]** Sales returns reflect FIFO assumptions, if the firm uses that system. However, purchases returns don't reflect FIFO assumptions, as the supplier determines what credit is returned.

CHAPTER 8 EXERCISES

1 Returns to a supplier

WB PAGE 147

The owner of Fidget Factory was issued with the following document.

Wholesale Toy Company
199 Barbie Road Kensville 5025

no. 3389
Date: 28/6/23

Credit: Fidget Factory Reason: **Incorrect colour**

Description	Quantity	Unit price	Subtotal	GST	Total
Fidget spinners	10	$12.00	$120.00	$12.00	$132.00
Totals			$120.00	$12.00	$132.00

Total (excluding GST)	$120.00
Total GST	$12.00
Total credit approved (including GST)	$132.00

a State the name of the above document.
b State the name of the business that issued this document.
c Explain the effect of the above document on the accounting equation of Fidget Factory.

2 Returns by a customer

WB PAGE 147

The following document was in the possession of Helen Betson, the owner of Betson's Wholesale Books, who applies a mark up of 100% to all inventory sold.

Betson's Wholesale Books
385 Williams Drive
Docklands 3008

no. 16

Date: 4/7/23

Credit: The Corner Bookstore
12 Elizabeth Street
Melbourne 3000

Reason: Damaged

Description	Quantity	Unit price	Subtotal	GST	Total
Guinness Book of Records 2023 edition	6	$75.00	$450.00	$45.00	$495.00
Totals			$450.00	$45.00	$495.00

Total (excluding GST)	$450.00
Total GST	$45.00
Total credit approved (including GST)	$495.00

- **a** State the name of the above document.
- **b** State the name of the business that issued this document.
- **c** Describe the transaction evidenced by this document.
- **d** State the double entry that should result from the issuing of this document in the general ledger of Betson's Wholesale Books.
- **e** State the double entry that would be recorded in the books of The Corner Bookstore as a result of the above document.

3 Returns to a supplier

WB PAGE 148 SPREADSHEET

On 1 July 2023, Azzopardi's Auto Spares purchases inventory from Chrysler Australia on credit for $2000 plus GST of $200. Some of the goods were the wrong specification and Azzopardi returns them to Chrysler on 3 July 2023. Credit note no. 65 is sent to his business. These goods originally cost Azzopardi $150, plus GST of $15. He intends selling the items for $290, plus GST of $29.

- **a** Prepare the general journal entry to record the return of goods by Azzopardi on 3 July 2023.
- **b** Prepare the general ledger account for Chrysler Australia showing all entries for July.
- **c** State the balance owing to Chrysler Australia as at 31 July 2023.

4 Returns by a customer

WB PAGE 148 SPREADSHEET

Glynn's Glassware sells goods on credit to Zaita & Zaita, CPAs for $600, plus GST of $60, on 12 July 2023. On 13 July, Zaita complains to Glynn that three items have marks on them and requests a credit. Glynn issues Credit note 241 to Zaita, stipulating that a credit of $150 had been approved, along with a credit for GST of $15. The cost price of the goods returned is $65.

- **a** Prepare the general journal entry to record the details required as a result of credit note 241.
- **b** Prepare the Accounts Receivable account for Zaita & Zaita in the general ledger of Glynn's Glassware.

SPREADSHEET

5 Accounts payable

WB PAGE 149

The following events are reported by the management of Peninsula Auto Parts during July 2023.

Jul	15	Spare parts were bought from Auto Spares on credit for $480, plus GST of $48 (Invoice 2175)
	28	Faulty parts costing $80, plus GST of $8, were returned to Auto Spares (Credit note 127)
	30	Statement of account received from Auto Spares with a balance of $440
	31	Made a payment via EFT to Auto Spares in full settlement of the account

a Prepare the general journal entries for any of the relevant items from the above list.

b Prepare the Accounts Payable account for Auto Spares, showing all transactions during July.

SPREADSHEET

6 Accounts receivable

WB PAGE 150

The following transactions occur between Encore Music Store and one of its credit customers, Jack Stewart.

Jul	3	Credit sale of musical instruments $4200, plus GST of $420 (cost price $2150)
	6	One guitar was returned as it was damaged (selling price $1200, GST $120, cost price $500) (Credit note 92)
	9	Credit sale of musical equipment $2700, plus GST of $270 (cost price $1230)
	25	Stewart made a payment on his account: $500

a Using the general journal, prepare the entries required for the four transactions shown above.

b Prepare the Accounts Receivable Jack Stewart account, showing all entries for the month of July 2023.

SPREADSHEET

7 Accounts payable

WB PAGE 151

The following details are provided by the owner of Hawthorn Sunglasses Store:

- balance of inventory as at 1 August 2023: $52 900
- balance of accounts payable as at 1 August 2023: $9300
- credit purchases for August: $8400, plus GST of $840
- cash sales for August: selling price $19 800, plus GST of $1980; cost price $9500
- during August, damaged goods costing $650 were returned to a supplier (GST on returned goods $65) (Credit note 128).

a Prepare the general journal entry to record the last item from the list above.

b Prepare the Inventory account and the Accounts Payable account, showing all transactions for August 2023.

c Apart from goods being damaged, state two other reasons why a firm may return goods to a supplier.

8 Accounts receivable

WB PAGE 151 SPREADSHEET

A business has inventory on hand of $75 000 on 1 September 2023. The balance of accounts receivable as at 1 September 2023 is $4000. The following events take place during September:

Sep	4	Sold goods on credit for $500, plus GST of $50 (cost price $240)
	6	Accounts receivable returned goods that were sold for $50, plus GST of $5 (cost price $20), and was granted a full credit (Credit note 9)
	12	Sold goods on credit for $400, plus GST of $40 (cost price $200)
	13	Customer was issued a credit note for goods returned: selling price $30, GST $3, cost price $15 (Credit note 12)
	22	An EFT payment was received from accounts receivable for the full amount owing

a Prepare the general journal entries required on 6 and 13 September.

b Prepare the following general ledger accounts: Inventory, Cost of Sales, Accounts Receivable, Sales and Sales Returns. Assume that the transactions listed above were the only events for the month of September.

9 Accounts payable and accounts receivable

WB PAGE 153 SPREADSHEET

The management of Fitzroy Furniture provides the following information:

- Balances as at 1 October 2023:

Inventory	$46 200
Accounts receivable	$ 8 400
Accounts payable	$ 7 300
GST clearing	$ 1 200 Cr

- Credit purchases during October: $7200, plus GST of $720
- cash purchases during October: $2100, plus GST of $210
- cash sales for October: selling price $12 400, GST $1240, cost price $6600
- credit sales for October: selling price $5460, GST $546, cost price $2560
- during October, damaged goods costing $890, plus GST of $89, were returned to a supplier (Credit note 104)
- during October, accounts receivable returned unsatisfactory goods that were originally sold for $680, plus GST of $68 (cost price $330) (Credit note 87).

a Prepare the general journal entry to record the last two items from the list above.

b Prepare the following general ledger accounts: Inventory, Cost of Sales, Accounts Payable, Accounts Receivable, Sales, Sales Returns and GST Clearing. Show all transactions for October 2023 and balance all accounts as at 31 October.

SPREADSHEET

10 Purchases returns

WB PAGE 155

The owner of Retro Game Gear receives a delivery from 8 Bit Incorporated and notices that two of the game controllers delivered have scratches on them. The invoice that came with the goods on 12 August 2023 contains the following details:

Invoice no. 612	10 units retro Nintendo controller @ $36.00
	Plus GST 10% @ $ 3.60

8 Bit Incorporated agrees to a full credit and issues credit note No. 33 on 13 August for two controllers. On 11 August 2023, the owner already has four of these controllers in inventory, at a cost price of $35 per unit.

a Prepare the general journal entry to record the return of goods on 13 August 2023.

b In the inventory card for the retro Nintendo controller, prepare all relevant entries for August, including the opening balance, the purchase and the return of two units to the supplier.

SPREADSHEET

11 Purchases returns

WB PAGE 156

Hurstbridge Hardware maintains an inventory card for every product sold by the business. The following extract comes from one of its inventory cards.

Inventory item: Proline drills		Valuation method: FIFO								
Date	Details	Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
1 Jul	Balance							4	50	200
3 Jul	Invoice 731	10	52	520				4	50	200
								10	52	520

On 5 July the owner of the business finds that three of the drills delivered on 3 July weren't Proline drills and were in fact an inferior brand. The supplier, Wholesale Tools, explains that it ran out of Proline drills and substituted an alternative product. Steve Holding, the owner of Hurstbridge Hardware, isn't happy with this decision and requests full credit for these three items. The supplier agrees to this, and on 6 July it issues credit note no. B72 for the three drills.

a Prepare the general journal entry to record the purchases return on 6 July. (Hint: don't forget the 10% GST.)

b Enter the details of credit note No. B72 in the inventory card for the Proline drills.

c Prepare the Accounts Payable account for Wholesale Tools, showing both the purchase and purchases returns entries.

12 Sales returns

WB PAGE 157 SPREADSHEET

The owner of Seddon Streetwear uses coloured tags to denote his different batches of inventory. When he experiences a price rise, he simply uses a different colour from the previous purchases of his inventory items. This system allows him to identify the actual cost of inventory quite easily. The following transactions took place during June 2023 in relation to one product, a black leather jacket.

Jun	1	Inventory on hand: Green tags: 10 jackets @ $150 each Yellow tags: 10 jackets @ $160 each
	4	Sold 5 jackets for $325 each (3 green tags, 2 yellow tags) (Receipt 176)
	11	Sold 2 jackets for $325 each (both with yellow tags) (Receipt 177)
	18	Purchased 10 new jackets for $165 each (blue tags applied) (Invoice 7161)
	20	Two jackets with yellow tags were returned to the store and full credit was granted (Credit note 16)
	30	Physical stocktake (Memo 26): Green tags: 6 jackets Yellow tags: 8 jackets Blue tags: 9 jackets

a Prepare the inventory card for black leather jackets for the month of June using the identified cost method.

b The owner is considering a change to the FIFO method but has been advised that it's not as accurate as identified cost. Do you agree? Explain your answer fully.

13 Sales returns

WB PAGE 158 SPREADSHEET

Luke Garagozlo operates a small retail business selling laptop computers. Prices in this industry can change very quickly, so Luke uses a system of coloured stickers on the laptops to help him identify their actual cost price. The following transactions relate to the X0 laptop.

Aug	1	Inventory on hand: Blue stickers: 5 laptops @ $850 each Red stickers: 8 laptops @ $820 each
	4	Cash sale of 2 laptops (red stickers) for $1550 each (Receipt 342)
	8	Cash sale of 1 laptop (red sticker) for $1550 (Receipt 343)
	12	Purchased 5 X0 laptops (purple stickers) for $840 each (Invoice 7172)
	15	Cash sale of 2 laptops (blue stickers) for $1525 each (Receipt 362)
	18	Cash sale of 3 laptops (1 blue, 2 purple) for $1500 each (Receipt 370)
	19	One laptop sold on 18 Aug (blue sticker) was returned and full credit allowed (Credit note 27)
	22	Purchased 5 X0 laptops (purple stickers) for $840 each (Invoice 7182)
	27	Sold on credit 8 laptops (5 purple and 3 blue stickers) to Essendon FC for $1450 each (Invoice 657)
	31	Physical stocktake (Memo 81): Red stickers on hand: 3 Purple stickers on hand: 3

a Prepare the inventory card for the X0 laptop for the month of August using the identified cost method.

b Redraft your inventory card prepared in part **a**, using the FIFO method of inventory valuation.

c Compare the cost of sales figures for the two methods of inventory valuation. Which method determines the most accurate cost of sales value? Explain your answer fully.

d Outline two reasons why some small business owners use the FIFO method of inventory valuation, rather than the identified cost method.

SPREADSHEET

14 Purchases returns

WB PAGE 160

The following details relate to the Kandy Bar Stool, one of the products sold by Fitzroy Furniture.

Balance	1 July	3 @ \$28 20 @ \$27
Sales during July	5 July	10 @ \$52, plus GST of \$5.20 (Receipt 181)
	14 July	8 @ \$52, plus GST of \$5.20 (Receipt 185)
	25 July	10 @ \$53, plus GST of \$5.30 (Receipt 192)
Purchases during July	17 July	20 @ \$28, plus GST of \$2.80 (Invoice 711)
Purchases returns	19 July	3 @ \$28, plus GST of \$2.80 (Credit note 88)
Physical stocktake	31 July	11 units on hand (Memo 312)

a Prepare all entries in the inventory card for the Kandy Bar Stool for the month of July, using the FIFO assumption of inventory flow.

b Prepare general journal entries for the events that took place on 19 and 31 July.

c Complete the Accounts Payable account for Funky Furniture, the supplier of the Kandy Bar Stool, given that Fitzroy Furniture owed this supplier \$400 on 1 July. Balance the account at the end of the month.

d Explain the role of the FIFO assumption in relation to determining the cost price of purchases returns.

SPREADSHEET

15 Sales returns: FIFO

WB PAGE 162

Consider the following inventory card.

Inventory item: Nail gun		Valuation method: FIFO								
Date	Details	Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
1 Sep	Balance							5	35	175
								15	38	570
5 Sep	Invoice 73				5	35	175			
					2	38	76	13	38	494

The customer (I Whinge) who purchased the seven items on credit on 5 September isn't satisfied with one of them and has been approved for a credit of \$70, plus GST of \$7 (Credit note No. 55, issued 6 September).

a Prepare the general journal entry for the sales return on 6 September.

b Justify the dollar values used in your answer to part **a**, and explain the source of each of the two dollar values.

c Redraft your journal entry for 6 September if I Whinge returned:

- **i** two items, rather than one
- **ii** three items, rather than one

d Complete the entry in the inventory card for a sales return by I Whinge of three items on 6 September.

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16 Sales returns: FIFO

WB PAGE 163 SPREADSHEET

The manager of Bundoora Beard Oils applies the FIFO assumption and provides the following information in relation to one of his inventory items:

Balance as at 15 July	5 @ $6 25 @ $7
Credit sale on 16 July (Invoice 54)	8 units @ $12, plus GST
Sales return on 17 July (Credit note 19)	2 units: credit allowed $24, plus GST

a Prepare entries in the inventory card, showing the balance on 15 July, the sale on 16 July and the return on 17 July.

b Justify the cost price that you have applied to the return on 17 July.

c Using a general journal, prepare the entry required on 17 July.

17 Sales returns: FIFO

WB PAGE 164 SPREADSHEET

Ian White is the owner of White Water Canoes. He uses the perpetual inventory system and maintains inventory cards under the FIFO method of cost location. The following information comes from one of these inventory cards.

Inventory item: Glide paddle		Valuation method: FIFO								
Date	Details	Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
1 Aug	Balance							2	75	150
3 Aug	Invoice 329	8	78	624				2	75	150
								8	78	624
4 Aug	Invoice A92				2	75	150			
					1	78	78	7	78	546

On 6 August, one of the Glide paddles sold on 4 August is returned by the accounts receivable, T Lockery. The paddle had a large dent at one end. Lockery requests that her account is credited for the returned item. White agree to this, and on 6 August issues credit note 812 for $150, plus GST of $15.

a Prepare the general journal entry to record the sales return on 6 August.

b Enter the details of the sales return in the inventory card for the Glide paddle.

c Prepare the Accounts Receivables ledger account for T Lockery, showing both the sales and sales returns entries. (*Note:* All three paddles were sold for $150, plus GST of $15.) Balance the account as at 6 August.

CHAPTER CHECKLIST

Now that you have finished Chapter 8, double check your progress.
Are you ready for your Unit 3 assessment?

I have …

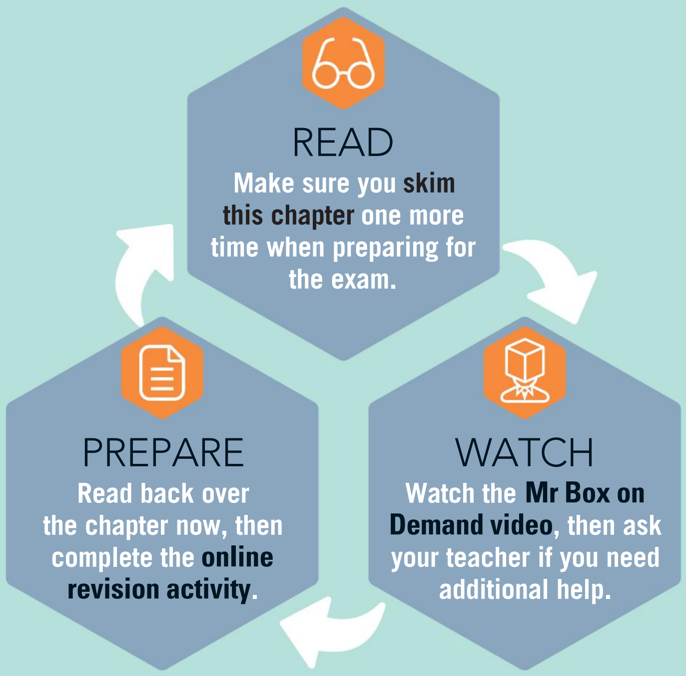
- completed all 'Check Your Understanding' questions
- completed all exercises
- handed in my workbook for marking.

I understand …

- the General Journal and General Ledger and their use in recording transactions, both manually and using ICT, including:
  - sales returns from accounts receivable
  - purchase returns to accounts payable
  - correction of errors
- inventory cards using the First In, First Out (FIFO) and Identified Cost methods for:
  - inventory returned
  - drawings of inventory by the owner.

I can …

- identify and manually record financial data in the General Journal, General Ledger and inventory cards
- use ICT to record financial data in the General Journal, General Ledger and inventory cards and to construct graphical representations.



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9 INVENTORY VALUATION

As a firm's inventory continues to be bought, sold, stored and returned, the accounting system needs to keep track of what all the items are worth. This means calculating a cost for the inventory one that accurately determines the value of each item.

In this chapter you will learn how to determine inventory value in line with the qualitative characteristics of accounting, and how to record and adjust inventory value in the double entry system.

LEARNING OBJECTIVES

By the end of this chapter, you will be able to:

- distinguish between a 'product cost' and a 'period cost' [9.1]
- apply the qualitative characteristic of relevance when determining product costs [9.1]
- explain the effect on profit of treating an expense as a product cost rather than a period cost [9.1]
- explain the meaning of the term 'net realisable value' (NRV) [9.2]
- value inventory at the lower of cost and NRV [9.2]
- record an inventory write down in the general journal and in inventory cards [9.3]
- explain the effect of an inventory write down on an income statement [9.3]
- explain the two fold effect of an inventory write down on a balance sheet [9.3].

UNIT 3 – PROGRESS 1 2 3 4 5 6 7 8 9 10 11 12 13

9.1 Product costs and period costs

9.2 Cost price versus net realisable value

9.3 Determining an item's NRV

Chapter review and exercises

9.1 PRODUCT COSTS AND PERIOD COSTS

The term 'cost of inventory' means the purchase price of an item, plus any other costs directly related to that item. The purchase price is normally stated on a purchase invoice. The other costs may include customs duty or cartage (shipping fees), if they can be isolated to a particular item of inventory.

For example, if five items are purchased and the cartage paid was $15, it's clear that $3 cartage has been incurred per unit. Under these circumstances, cartage can be charged to the individual items of inventory as a **product cost**. It becomes part of the cost of a product or item of inventory, and is recorded on that item's inventory card.

product cost
cost added to the cost price of a unit of inventory

However, it's not possible to do this when a delivery of inventory involves several different items. For example, consider a delivery for a sports store of 20 footballs, 30 football jumpers, 12 soccer balls and 3 trampolines, with a cartage fee of $55 for the entire delivery. It's not possible to isolate the cartage per inventory item for this delivery in a logical manner.

In cases like this, the cartage is treated as a **period cost** instead of a product cost. This means that it's written off as an expense for the reporting period, and isn't recorded as part of the cost of a particular inventory item.

period cost
cost written off as an expense for the reporting period

Cartage (shipping fees) can be recorded as either a product or period cost.

THE RELEVANCE TEST

When considering the cost of an item of inventory, the qualitative characteristic of relevance should be taken into account.

The question of whether a cost is relevant may be decided by its significance. Accounting information is usually viewed as relevant if its omission is likely to affect decision making. This decision doesn't consider the nature of the item; it's simply concerned with the dollar value paid and its relative importance.

Let's look at two examples to illustrate this test.

EXAMPLE 9.1

Perfect Props purchases one replica shield at a cost of $300, plus a delivery fee of $10. How should the $10 be treated – as part of the cost of the item or as a separate expense?

The answer lies in the interpretation of relevance and the dollar value.

- If the $10 is viewed as a relevant amount, it should be added to the cost of the item of inventory. The item would be entered on the inventory card at a cost price of $310 ($300 + $10 delivery).
- If the $10 isn't seen as relevant to decision making, it wouldn't be added to the cost price. The delivery fee would be treated as a period cost in the usual fashion (probably as 'cartage inwards').

Most small businesses would treat $10 cartage as a product cost. It's a significant dollar amount on a per item basis, and it would impact on decision making when determining the selling price of the shield. Also, it's easily identifiable on a per unit basis, making it more likely to be treated as a product cost.

This decision is a matter of opinion, and some businesses may choose differently. However, if a cost can be traced to an individual unit in a logical way, and is a reasonably significant dollar value, it should be treated as part of the cost of the item.

EXAMPLE 9.2

Perfect Props also purchases 10 replica WWII helmets with a cost price of $75, plus a delivery fee of $10. How should the $10 be treated in this situation?

The $10 equates to a delivery fee of $1 per helmet, which each have a cost price of $75. The delivery fee can still be logically traced to an individual inventory item, but is a cost of $1 significant in this case?

If the owners of Perfect Props think the $1 cost isn't significant, it wouldn't be added to the item's inventory card. Instead, the $10 is treated as a period cost and debited to the Cartage Inwards account, which would be closed off to the Profit and Loss Summary account at the end of the period.

Again, this decision is a matter of opinion. Some business owners may feel that a $1 cost would affect their decision making when pricing the goods, and that it should be treated as a product cost. Others might argue that it's not significant, and can simply be written off as a period cost.

There is no definitive percentage or dollar amount that states whether or not an item should be treated as a product cost or a period cost. The two tests that need to be satisfied are:

- Can the cost be logically traced to an individual inventory item?
- Is the amount per item significant enough to affect decision making?

Relevance and decision-making

One of the basic roles of accounting is to provide financial information for decision making. The purpose of the characteristic of *relevance* is to ensure that all significant, material information is available so that decision makers are fully informed.

An item may not be considered relevant if it has a small, insignificant value. As items grow in value, they become more likely to be relevant to decision making. The question is: what dollar value does an item need to be before it's relevant to decision makers?

If in doubt as to whether an item's omission would affect decision making, it's safer to classify the item as relevant and to let those making the decisions have the final verdict. When dealing with the cost of an item of inventory, exclude only very small, insignificant amounts from the definition of the cost of a particular item.

THE EFFECT ON PROFIT

The decision as to whether to treat an item as a product cost or a period cost may affect the profit result for a particular period.

For example, when cartage inwards is treated as a product cost, it becomes part of the cost of the inventory item and is treated as part of the current asset called inventory. It's not written off as an expense until this inventory is actually sold. Therefore, product costs become part of the cost of sales expense when inventory is actually sold.

However, if cartage is treated as a period cost, the amount incurred is written off as an expense for the *current* period, regardless of how many units of inventory are actually sold.

The decision to treat an item as a product or period cost may therefore mean that a different profit figure will be determined, depending on how the item is treated.

EXAMPLE 9.3

1 Jun 200 units are purchased at a cost of $40 each; the delivery fee paid is $400.
30 Jun Of the 200 units purchased, only 30 have been sold by the end of June.

As the delivery fee amounts to a cost of $2 per unit, the following choices are available:

Product cost		**Period cost**	
Cost price	$40	Cost price	$40
+ delivery	$2	Cartage in expense	$400
Total cost	$42		

Since only 30 units were sold by 30 June, the expenses would be reported under the two alternatives:

Product cost		**Period cost**	
Cost of sales (30 x $42)	$1260	Cost of sales (30 x $40)	$1200
		Cartage in	$400
Total expenses	$1260	Total expenses	$1600

This shows that if the cost of delivery is treated as a period cost, expenses are $340 higher and profit is $340 less. The difference occurs because under product costing, the delivery fee of $2 per unit remains as part of inventory for the 170 units that haven't yet sold ($170 x $2 = $340).

Profit will always be lower if expenses are written off as period costs, unless all units of inventory are sold by the end of the period. If this occurs, profit will be exactly the same, regardless of whether an item is treated as a product cost or a period cost.

If any goods remain unsold at the end of a period, product costing will *always* result in a higher net profit, as some of the expense would still be part of inventory.

9.1 CHECK YOUR UNDERSTANDING

WB PAGE 166

1 Explain the meaning of the term 'cost' as it relates to inventory.
2 Distinguish between a product cost and a period cost.
3 Explain the role of relevance in determining a product's cost.
4 A small business owner says, 'It doesn't really matter if you treat an expense as a product cost or a period cost. They're both expenses, after all, so profit will still be the same.' Do you agree with this comment? Explain your answer fully.

9.2 COST PRICE VERSUS NET REALISABLE VALUE

As a basic rule, inventory is always recorded at cost prices. This is the case for both individual inventory cards and the double entries in the general ledger accounts.

However, when reporting inventory in the final accounting reports, there is an exception to this general principle. In the balance sheet of a trading firm, inventory should be valued at the *lower* of two alternatives. The first of these is cost price and the second is net realisable value.

An item's **net realisable value (NRV)** is the estimated selling price of the product minus any costs incurred in its marketing, selling and distribution. In other words, it's the net amount the business expects to gain from the sale of the item.

net realisable value (NRV) estimated selling price of an item of inventory, less any costs incurred in its selling, marketing or distribution

Any costs incurred in selling must be traceable on an individual basis to the specific inventory item involved. For example, if a firm expects to sell an item for $18, but pays a commission of $3 for each unit sold, the item's net realisable value would be $15.

THE FUNCTION OF NRV

In some cases, inventory items may have an NRV that is actually *lower* than the cost paid by the business. This situation occurs only in a minority of cases, but sometimes a business will sell an item for less than it cost to purchase. This may occur because the item of inventory:

- has been superseded by a new model
- has become obsolete
- is out of season
- is out of fashion
- is damaged
- is shop soiled.

The qualitative characteristic of *faithful representation* demands that financial reports faithfully represent real economic events. Accountants must therefore recognise losses on inventory if they occurred in the current reporting period. The characteristic of relevance also demands that if a business decides to sell inventory for less than it cost, it should recognise the loss in the current reporting period. If the loss isn't recognised, the profit for the period will be overstated and won't faithfully represent what has occurred.

Therefore, inventory should be valued at the lower of cost and NRV. If inventory is expected to be sold for less than the firm paid for it, the NRV should be used to value that line of inventory. This avoids overstating the value of inventory in the balance sheet.

When this rule is applied, accounting standards demand that both the cost of inventory and its NRV are stated on an individual product basis, rather than total inventory. Of course, in the majority of businesses, the cost of total inventory is usually much less than its NRV, as it's normal to sell inventory at a profit.

In order to reveal products where the NRV may be lower than the item's cost, it's necessary to apply the rule on an individual basis. This isn't always possible, and sometimes inventory items have to be considered in groups of inventory. This is still acceptable according to the accounting standards, because examples of NRV being below cost can still be identified. However, the preferred method is to consider individual inventory items.

APPLYING NRV IN FINANCIAL REPORTING

The management of Essendon Trading has just completed its physical stocktake and determined inventory on hand.

Inventory item	Cost $	Quantity	Value $
A	10	400	4 000
B	10	200	2 000
C	20	200	4 000
D	30	300	9 000
Total cost of inventory			19 000

The value for inventory shown above only takes into account the cost of the firm's inventory. When the NRV of each item is taken into account, a different picture emerges.

Item	Cost $	NRV $	Lower of cost and NRV $	Quantity	Value $
A	10	18	10	400	4 000
B	10	7	7	200	1 400
C	20	25	20	200	4 000
D	30	22	22	300	6 600
					16 000

Item A cost the firm $10 each and is expected to realise $18 per unit. The lower of these two figures is the cost of $10, so this figure is adopted. The same situation exists for item C, which cost $20 and is expected to sell for $25.

However, items B and D both have an NRV that is lower than their cost prices. The rule of using the lower of cost and NRV means that, for these two items, the NRV must be used.

The effect of this is that the cost of inventory was $19 000 but, because some items won't realise their cost prices, this value must be reduced to $16 000. This is done via a general journal entry recording an **inventory write-down** (Figure 9.1).

inventory write-down general journal entry used to reduce the value of an item of inventory from its cost price

FIGURE 9.1 General journal entry to record an inventory write-down

GENERAL JOURNAL

Date	Details	Dr	Cr
31 Dec	Inventory write-down	3 000	
	Inventory		3 000
	Adjusting entry for inventory write-down (Memo 45)		

RECORDING AN INVENTORY WRITE-DOWN

As well as the general journal entry, the item's inventory card is affected by the adjustment for an inventory write down, due to its NRV being lower than its cost price. As usual, any entry in the Inventory account must also be recorded in the relevant inventory card.

Looking at inventory item B for Essendon Trading, there were 200 units on hand with a cost price of $10. However, the NRV of item B was stated as only $7. Therefore, an inventory write down of $3 must be recorded on the inventory card of item B, as shown in Figure 9.2.

FIGURE 9.2 **Inventory card showing an inventory write-down**

Inventory item: Item B										
Date	Details	Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
31 Dec	Balance							200	10	2 000
31 Dec	Memo 45				200	3	600	200	7	1 400

The other item with an NRV lower than its cost price is item D. The cost of this product was $30, but it's expected to realise only $22 when sold. As there are 300 units of item D on hand, the write down required is 300 × $8 ($30 $22 = $8 per unit).

FIGURE 9.3 **Inventory card showing an inventory write-down**

Inventory item: Item D										
Date	Details	Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
31 Dec	Balance							300	30	9 000
31 Dec	Memo 45				300	8	2 400	300	22	6 600

The general journal entry in Figure 9.1 recorded a total inventory write down of $3000. This can be reconciled with the entries in the inventory cards above. Item B was written down by $600, while item D had a write down of $2400, for a total adjustment of $3000.

In the general ledger, the Inventory Write down account is classified as an expense. It's shown in the income statement, along with any inventory losses identified by the physical stocktake. Both of these items are deducted from the gross profit to determine the adjusted gross profit for the period.

	$	$
Sales		100 000
Less: Cost of sales		40 000
Gross profit		60 000
Less: Inventory loss	2 000	
Inventory write-down	3 000	5 000
Adjusted gross profit		**55 000**

As shown below, the Inventory account is written down to the lower value, taking into account the rule of lower of cost and NRV.

INVENTORY

		$			$
31 Dec	Balance	19 000	31 Dec	Inventory write-down	3 000
				Balance	16 000
		19 000			19 000
1 Jan	Balance	16 000			

The balance of inventory would then be reported in the balance sheet, once the adjustment has been made to the books.

ESSENDON TRADING: BALANCE SHEET (EXTRACT) AS AT 31 DECEMBER 2023

Current assets	$
Inventory	16 000

Faithfully adjusting for write-downs avoids profits being overstated.

QUALITATIVE CHARACTERISTICS AND THE NRV

Both the income statement and the balance sheet are affected by the adjustment for inventory write downs.

- The income statement is affected by an adjustment to the gross profit for the period.
- The balance sheet is affected through the reduction in the Inventory account (matched with a reduction in owner's equity, due to a lower profit figure).

Both final reports are adjusted by the application of the lower of cost and NRV rule, so there is less likelihood that the profit for the period, or the assets of the business at the end of the period, have been overstated. This complies with the qualitative characteristic of *faithful representation*, which is the main aim of this rule when valuing inventory.

The disclosure of such details is also necessary under the qualitative characteristic of *relevance*. If a trading firm has units of inventory that will realise less than they cost, this information is clearly relevant to the users of the final reports. The dollar value of such expected losses should be reported, so that individual users can evaluate the extent of the problem.

9.2 CHECK YOUR UNDERSTANDING

WB PAGE 167

1. What does 'net realisable value' mean, in terms of inventory?
2. List four reasons why an item of inventory may have an NRV lower than its cost price.
3. Explain why the lower of cost and NRV should be applied to individual inventory items, or groups of items, rather than total inventory.
4. Explain the link between the qualitative characteristic of faithful representation and the rule of lower of cost and NRV.
5. Explain the link between the concept of relevance and the application of the NRV rule.

9.3 DETERMINING AN ITEM'S NRV

Net realisable value is the estimated selling price of a product, less any costs incurred in marketing, selling and distributing the item. In our previous examples, the NRV was conveniently stated so that it could be compared with cost prices. This won't always be the case, and you may need to calculate an appropriate NRV.

EXAMPLE 9.4

Sunshine Products records the following inventory at the end of 2023.

	Quantity	Cost	Selling price	Selling cost
Item A	100	$5	$9	$2 per unit
Item B	200	$7	$8	$2 per unit

Item B previously sold for $14, but has been replaced by a new model that has just been released. Management has decided to cut the selling price to $8 in order to clear all inventory held.

When the selling costs are taken into account, the NRV of the inventory can be determined.

Item	Estimated selling price	Selling costs	NRV $
Item A	$9	$2	$9 less $2 = $7
Item B	$8	$2	$8 less $2 = $6

Item A hasn't had its selling price reduced, and its NRV ($7) is greater than its cost price ($5). Therefore, it's not affected by the application of the NRV rule.

However, item B, which costs $7 each, has an NRV of only $6. This is despite the fact that its selling price ($8) is slightly higher than cost ($7). When the anticipated selling costs are taken into account, the NRV of item B falls below cost.

This table shows a summary of this application of the NRV rule.

Item	Estimated selling price	Selling costs	NRV $	Cost price	Lower of CP and NRV	Qty	Value
Item A	$9	$2	$7	$5	$5	100	$ 500
Item B	$8	$2	$6	$7	$6	200	$1 200
						Total value for inventory	$1 700

An inventory write down will be required in the general journal on balance day. The amount of the write down is determined by the difference between the cost of item B ($7) and the NRV of the item ($6), multiplied by the number of units on hand (200).

The write down would be $1 × 200 units = $200.

The following general journal shows the entry required to record an inventory write down, including the memo number in the narration.

GENERAL JOURNAL

Date	Details	Dr	Cr
31 Dec	Inventory write-down	200	
	Inventory		200
	Adjusting entry for inventory write-down (Memo 67)		

Sometimes a business will sell items at less than they cost to purchase.

9.3 CHECK YOUR UNDERSTANDING

WB PAGE 168

1 State the double entry to record an inventory write-down.
2 'NRV is basically the same as the selling price of an inventory item.' Do you agree? Explain your answer.
3 The owner of a small business values inventory on hand at cost at $63 000. When the lower of cost and NRV rule was applied, she finds that the value of inventory was only $59 000 and that an inventory write-down should be recorded. Using the following table, show the two-fold effect of this inventory write-down on the firm's balance sheet. (Show dollar amounts where applicable.)

	Increase/Decrease/No effect	$
Assets		
Liabilities		
Owner's equity		

9 CHAPTER REVIEW

KEY CONTENT

- **[9.1]** The cost of inventory includes both the purchase price of an item and any other costs directly related to that item.
- **[9.1]** Product costs are related directly to an inventory item and are recorded on its inventory card. Period costs aren't related directly to an inventory item; they are written off as an expense for the current reporting period.
- **[9.1]** When deciding to treat a cost as a product or period cost, a business should consider whether the cost can be logically traced to an individual inventory item, and whether the amount per item is significant enough to affect decision making. This satisfies the demands of the qualitative characteristic of relevance.
- **[9.2]** In the balance sheet of a trading firm, inventory should be valued at the lower of either cost price or net realisable value (NRV), the estimated selling price minus any costs incurred. NRV will be lower than cost price in situations where goods are sold at a loss.
- **[9.3]** When NRV is lower than cost price, this is recorded in the general ledger as an inventory write down. The item's inventory card must also be adjusted.

CHAPTER 9 EXERCISES

1 Product or period cost?

WB PAGE 169

During the month of July 2023 the owner of Westside Sports, Stan Poppleton, makes the following purchases.

Jul	6	Bought on credit five bikes at a cost of $240 each. The bikes were modified before delivery with a computerised speedometer/odometer. The modifications cost $25 per bike.
	14	Purchased two dozen Sherrin footballs at a cost of $70 each. The courier that delivered the footballs charged Poppleton a delivery fee of $12.
	22	Received a special delivery of 12 soccer balls from Good Sports. These balls usually cost $38 but have been repackaged in special boxes featuring the flags of the nations that compete in the World Cup. This was done as a marketing strategy by Good Sports and the repackaging cost Poppleton $4 per ball.

a For each of the three items Poppleton purchases during July, state the cost price that you would recommend should be recorded on the item's inventory card. Justify your answer in each case.

b Explain the difference between a product cost and a period cost. Use examples from Westside Sports to help clarify your answer.

2 Product or period cost?

WB PAGE 170

Rosa Mondio is the owner of Phonelife, a small business that sells smartphone accessories. On 1 October 2023, Rosa receives a delivery of iPhone cases from one of her suppliers. The invoice includes the following details:

10 Perfecta iPhone cases @ $25	$250
plus: cartage	30
Invoice sub-total	280
plus GST	28
Invoice total	$308

On 1 November 2023, Rosa receives another delivery. The invoice sent with the goods on this occasion includes the information below.

10 crystal screen protectors @ $40	$400
10 leather tablet wallets @ $28	*280*
15 Bluetooth speaker sets @ $40	600
plus cartage	30
Invoice sub-total	1 310
plus GST	131
Invoice total	$1 441

a At what cost should the iPhone cases purchased in October be recorded in the inventory card? Explain your answer fully, including your treatment of the cartage fee and the GST.

b At what cost would you record the screen protectors that were delivered in November? Justify your answer.

c Is there any difference in your treatment of the cartage in October compared with that paid in November? Explain your answer fully, with reference to a qualitative characteristic of accounting.

3 Product costing

WB PAGE 170

Echuca Electrical is a retail store that sells the Deluxe 500 L refrigerator. The following financial details have been provided for your information.

Invoice price of the Deluxe 500 L refrigerator	$800
Advertising	$4 800 per annum
Customs duty payable	10% of purchase price
Insurance of inventory	$1 500 per annum
Cartage in expenses	$40 per refrigerator
Cartage out expenses	$20 per refrigerator
Average mark-up on refrigerators	75%
Commission paid on sales	5%

a Select the relevant details from above and calculate the dollar amount that should be recorded as the cost of one Deluxe 500 L (500 litre) refrigerator.

b Explain your treatment of the items ‘cartage in’ and ‘cartage out’.

c Explain the difference between a product cost and a period cost. Use examples from the above information in your answer.

d During August 2023 the business sold 10 Deluxe 500 L refrigerators. Prepare an income statement to show the net result of selling 10 fridges. (Note: the 75% mark up is applied to the total product cost of each fridge.)

4 Product costing

WB PAGE 172

Skipper's Office Supplies decides to sell a new line of inventory, the Pro plus printer, which will be purchased in lots of 10 units at a time. As a special promotion, the owner of the business, Toni Skipper, includes an extra printer cartridge with each printer. She also has the printers repackaged in an attempt to promote sales. All printers are delivered once a month by the supplier, the Global Printer Company. Details of the price structure for this inventory line are as below.

Supplier's price	$90	GST $9
Extra cartridge	$20	GST $2
Packaging costs	$10	GST $1
Estimated selling price	$140	GST $14
Delivery costs per month	$100 (covers all inventory)	GST $10

a What cost price would you record in the inventory card for the Pro plus printer? (Show all workings.)

b Explain your treatment of the GST payable on the inventory purchased.

c Distinguish between product and period costs, with reference to an example of each from the above information.

5 Net realisable value

WB PAGE 172 SPREADSHEET

The following information relates to three different inventory items in a trading business.

Item	Quantity	Cost price $	Estimated selling price $
101	2000	8	12.50
102	1000	7	11.00
103	3000	12	10.00

a Determine the cost of inventory that should be determined as a result of a physical stocktake.

b Copy and complete the following table, using the lower of cost and NRV rule.

Item	Cost price $	NRV $	Lower of cost and NRV $	Quantity	Value $
101					
102					
103					
Total					

c Prepare the general journal entry to adjust the books of the business for an inventory write down, as noted by Memo 47.

d State the value that would be reported for inventory in the balance sheet of the firm on 30 June 2023.

e Show how the inventory write down would be recorded in the inventory card of item 103.

f Explain the effect of the inventory write down on the income statement.

SPREADSHEET

6 Net realisable value

WB PAGE 174

The information listed below relates to the inventory of Better Products on 30 September 2023.

Item	Quantity	Cost price $	Estimated selling price $	Marketing costs per unit $
A	800	5	9	2.00
B	600	4	4	2.00
C	1000	9	16	3.00
D	1800	8	14	2.50

a Calculate the value of inventory on hand at cost price.

b Determine the NRV for each line of inventory.

c Prepare a table to show the application of the lower of cost and NRV rule.

d Prepare the general journal entry to record the adjustment for an inventory write down, evidenced by Memo 33.

e Show how the inventory write down would be recorded in the inventory card of item B.

f Show how inventory would be reported in the balance sheet of Better Products on 30 September 2023.

SPREADSHEET

7 Net realisable value

WB PAGE 175

Joe Lanzon is the owner of Newport Kitchen Supplies, a small business that sells a variety of kitchen products, including a range of coffee percolators in different sizes. He has provided the following information as at 30 June 2023 in relation to his inventory of percolators.

Size	Quantity as per inventory card	Quantity as per stocktake	Cost price $	Normal selling price $	Estimated NRV $
4 cup	100	100	12	19	19
6 cup	120	115	18	28	25
8 cup	80	82	20	29	29
10 cup	160	150	25	35	32
12 cup	180	180	28	39	25

a Using the relevant information from the above table, calculate the value of the overall inventory loss or gain to be recognised on 30 June 2023.

b The recognition of an inventory loss or gain can be justified by two different qualitative characteristics of accounting. Name these characteristics. Explain how they justify the recording of an inventory loss or gain.

c Calculate the value of the inventory write down required on 30 June 2023.

d Explain why an inventory write down should be recorded on balance day, with reference to the relevant accounting assumption.

e Prepare the general journal entry to record the inventory write down required.

f Taking into account all relevant information from that stated above, determine the balance of inventory reported in the balance sheet for Newport Kitchen Supplies as at 30 June 2023. (Show all workings.)

CASE STUDY

WB PAGE 176 SPREADSHEET

Shane Noonan is the owner of Wallan Wares, a retail outlet that sells a range of household appliances. Noonan closes his books annually on 31 August. The following extracts have been provided from some of the inventory cards used in his business.

Inventory item: Premier 120 cm television								Identified cost		
Date	Details	Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
23 Aug	Receipt 4334				2	250	500	6	250	1 500
26 Aug	Receipt 4342				1	250	250	5	250	1 250
28 Aug	Receipt 4351				2	250	500	3	250	750

Inventory item: Series X laptop								Identified cost		
Date	Details	Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
25 Aug	Invoice 2132				2	1 200	2 400	5	1 200	6 000
								8	1 300	10 400
27 Aug	Receipt 2136				1	1 200	1 200	4	1 200	4 800
								8	1 300	10 400
30 Aug	Receipt 2138				2	1 300	2 400	4	1 200	4 800
								6	1 300	7 800

Inventory item: Deluxe freezer								Identified cost		
Date	Details	Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
22 Aug	Receipt 4332				1	800	800	1	800	800
								3	850	2 550
26 Aug	Receipt 4344				2	850	1 700	1	800	800
								1	850	850
30 Aug	Invoice 32193	6	850	5 100				1	800	800
								7	850	5 950

Additional information

- A stocktake performed on 31 August 2023 revealed that only two Premier televisions were in inventory (Memo 21).
- A new model of laptop computer has just hit the market. Noonan has reviewed his computer inventory and decided that his units of the Series X laptops will be sold for $1100 each in a clearance sale, starting in early September 2023 (Memo 22).
- The customer who purchased the two freezers on 26 August was charged $1300 per unit, plus GST of $130. Unfortunately, he has decided that he now only needs one of them. Noonan decides to give him a credit note for the full price charged for the item. This decision is made and carried out on 31 August (Credit note 112 issued to A Leishman).

---

a Prepare the relevant general journal entries on 31 August to account for all of the above events.

b Justify your treatment of the value of the computers. Refer to one accounting assumption and one qualitative characteristic in your answer.

c What cost price did you use for the return of the freezer? Justify your choice.

d State the value of inventory on hand for each of the three inventory items after the adjustments you have made via the general journal in Question **1**. State the quantity, value and total value on hand for each item.

e Noonan is getting tired of having to write his cost prices in code on all of his inventory items. He is now thinking of adopting the FIFO method of inventory valuation. Should he continue using identified cost or change to FIFO? Discuss.

CHAPTER CHECKLIST

Now that you have finished Chapter 9, double check your progress.
Are you ready for your Unit 3 assessment?

I have …

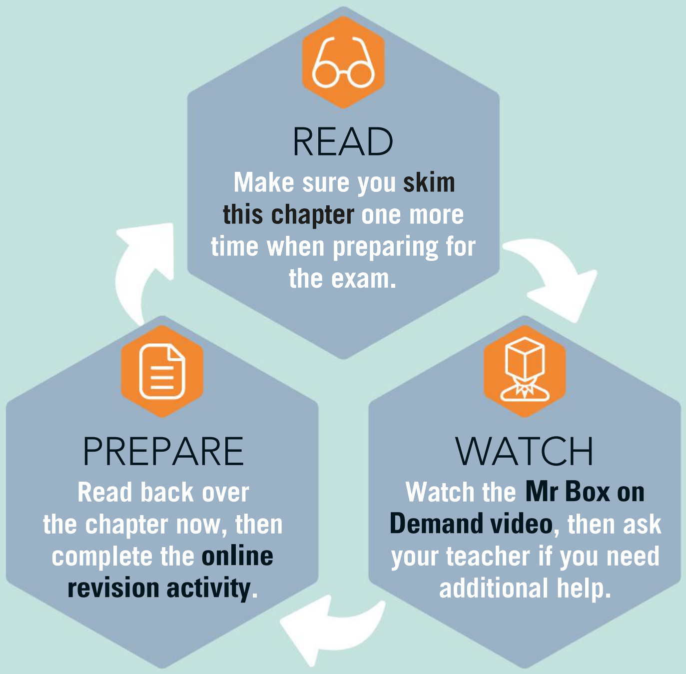
- completed all 'Check Your Understanding' questions
- completed all exercises
- completed all end of chapter activities
- handed in my workbook for marking.

I understand …

- the General Journal and General Ledger and their use in recording transactions, both manually and using ICT, including inventory write down
- inventory cards using the First In, First Out (FIFO) and Identified Cost methods for inventory write down
- inventory valuation:
  - product and period costs
  - the lower of cost and net realisable value (NRV).

I can …

- distinguish between product and period costs in relation to inventory valuation
- use ICT, including spreadsheets, to model and analyse the effect of alternative inventory valuation methods and cost assignment methods.



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10 CLOSING THE GENERAL LEDGER

Once a trial balance has been prepared, you must still determine the profit earned by the firm during the reporting period, and prepare the ledger accounts for the new reporting period. This is done by closing off the accounts used to prepare the income statement

In this chapter, you will learn what is involved in closing the general ledger at the end of a reporting period, and how to report on a business's profit or loss.

LEARNING OBJECTIVES

By the end of this chapter, you will be able to:

- describe what is involved in closing the general ledger **[10.1]**
- prepare a Profit and Loss Summary account in the general ledger **[10.1]**
- distinguish between closing an account and balancing an account **[10.2]**
- state which accounts are closed and which are balanced **[10.2]**
- prepare general journal entries to close the relevant accounts **[10.3]**
- prepare a general journal entry to transfer a net profit or loss to the owner's Capital account **[10.4 & 10.5]**
- prepare a general journal entry to close the owner's drawings account to the Capital account **[10.5]**.

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10.1 CLOSING THE GENERAL LEDGER

Profit is the excess of revenue over expenses for a given period of time. We use the revenue and expense accounts in the general ledger to calculate a profit. This leaves the account classifications of assets, liabilities and owner's equity, which make up the accounting equation.

This is an important distinction, because revenue and expense accounts *must* be closed off on balance day. The accounts reported as assets, liabilities or owner's equity are formally balanced in the usual way.

The other procedure is to return the balance of all revenues and expenses to zero. It is vitally important to the accounting system not to mix one period's revenue and expenses with those of the following period. If this happened, it would become practically impossible to determine profit for a given period.

Therefore, on balance day of every period, all revenue and expense accounts are closed off and have a zero balance in preparation for the new reporting period. This exercise is commonly referred to as *closing the general ledger*, or simply *closing the ledger*.

On balance day, all revenue and expense accounts must be returned to a zero balance.

THE PROFIT AND LOSS SUMMARY ACCOUNT

profit and loss (P&L) summary account general ledger account that summarises all revenues and expenses for a reporting period, leaving the profit or loss

net profit when revenues exceed expenses for a reporting period

The **Profit and Loss Summary account** (also called the P&L Summary account) is a general ledger account used to gather the totals of all revenue and expense accounts in order to calculate the **net profit** of a business. It's classified as a profit determination account, which is a temporary owner's equity account.

When accounts are closed off, their balances are transferred to the P&L Summary account. The account is only used on balance day.

Figure 10.1 shows an example of a P&L Summary account.

FIGURE 10.1 Profit and Loss Summary account showing a net profit

Profit and Loss Summary

2023		$	2023		$
31 Mar	Expense accounts	55 000	31 Mar	Revenue accounts	70 000
	Capital (net profit)	15 000			
		70 000			70 000

P&L Summary accounts have three key features:

- the total of all revenue accounts appears on the credit side of the P&L Summary account.
- the total of all expense accounts appears on the debit side of the P&L Summary account.
- Profit equals revenue less expenses ($70 000 $55 000), so the net profit of the firm (in this example) is $15 000.

The calculated profit is entered in the P&L Summary account as capital, since the profit for a period increases the owner's Capital account. The $15 000 profit in this example is transferred to the Capital account of the owner.

10.1 CHECK YOUR UNDERSTANDING

WB PAGE 180

1. Explain what 'closing the ledger' means.
2. State and explain two reasons why ledger accounts must be closed.
3. What types of ledger accounts are closed? Why are some accounts not closed?
4. Describe the purpose of the P&L Summary account.

10.2 CLOSING A LEDGER ACCOUNT

The closing of a ledger account involves making an entry in the account opposite to the balance. In a revenue account, which usually has a credit balance, the **closing entry** is made on the debit side. As expense accounts usually have debit balances, the closing entries would be made on the credit side of the accounts.

Consider the accounts below, which were used to determine the totals of revenues and expenses in the P&L Summary account in Figure 10.1.

closing entry
general journal entry used to close off a revenue or expense account

Cash sales

		$			$
			8 Mar	Cash at bank	60 000

Credit Sales

		$			$
			16 Mar	Accounts receivable	10 000

Cost of sales

		$			$
8 Mar	Inventory	31 000			
16 Mar	Inventory	4 000			

Wages

		$			$
31 Mar	Cash at bank	15 000			

Advertising

		$			$
11 Mar	Cash at bank	5 000			

These accounts reflect transactions for the month ended 31 March 2023. We can see that the balances of the revenue accounts are $60 000 in the Cash Sales account and $10 000 in Credit Sales. The expenses include cost of sales of $35 000, wages of $15 000 and $5000 of advertising.

When the closing entries are posted to these ledger accounts, they appear as shown below.

GENERAL LEDGER

Cash sales

		$			$
31 Mar	P&L summary	60 000	8 Mar	Cash at bank	60 000

Credit Sales

		$			$
31 Mar	P&L summary	10 000	16 Mar	Accounts receivable	10 000

Cost of sales

		$			$
8 Mar	Inventory	31 000			
16 Mar	Inventory	4 000	31 Mar	P&L summary	35 000
		35 000			35 000

Wages

		$			$
31 Mar	Cash at bank	15 000	31 Mar	P&L summary	15 000

Advertising

		$			$
11 Mar	Cash at bank	5 000	31 Mar	P&L summary	5 000

DON'T!
Do not ever close off assets and liabilities! Only revenue and expense accounts are closed off.

Note how the closing entries are on the opposite side to the balances of the accounts. When the closing entries are made, the account balances are brought back to zero. As with all entries in double entry accounting, every debit must be paired with a credit, and vice versa.

The other account affected in the double entry is the P&L Summary account, which gathers together all of the revenue and expense account balances.

Profit and Loss Summary

		$			$
31 Mar	Expense accounts	55 000	31 Mar	Revenue accounts	70 000
	Capital	15 000			
		70 000			70 000

It's not necessary to individually list the revenue and expense items in the P&L Summary account. As it's a summary of a firm's revenues and expenses for a reporting period, the only detail required is a total figure for both revenues and expenses.

Each revenue and expense account must be closed off to the P&L Summary account at the end of the period.

However, it's vital to close off each individual revenue and expense account to the P&L Summary account so that, at the start of the next reporting period, all such accounts begin with a zero balance.

10.2 CHECK YOUR UNDERSTANDING

WB PAGE 181

1 Distinguish between closing and balancing a ledger account.
2 Is there a link between the going concern assumption and the balancing of accounts? Explain fully.
3 Explain why individual accounts are not listed in a P&L Summary account.

10.3 THE GENERAL JOURNAL AND CLOSING ENTRIES

As with any entry in the general ledger, closing entries must first be recorded in the general journal. The general journal entries for the accounts discussed so far would be prepared as shown in Figure 10.2.

FIGURE 10.2 General journal closing entries

GENERAL JOURNAL

Date	Details	Dr	Cr
31 Mar	Cash sales	60 000	
	Credit sales	10 000	
	P&L summary		70 000
	Closing entries		
31 Mar	P&L Summary	55 000	
	Cost of sales		35 000
	Wages		15 000
	Advertising		5 000
	Closing entries		

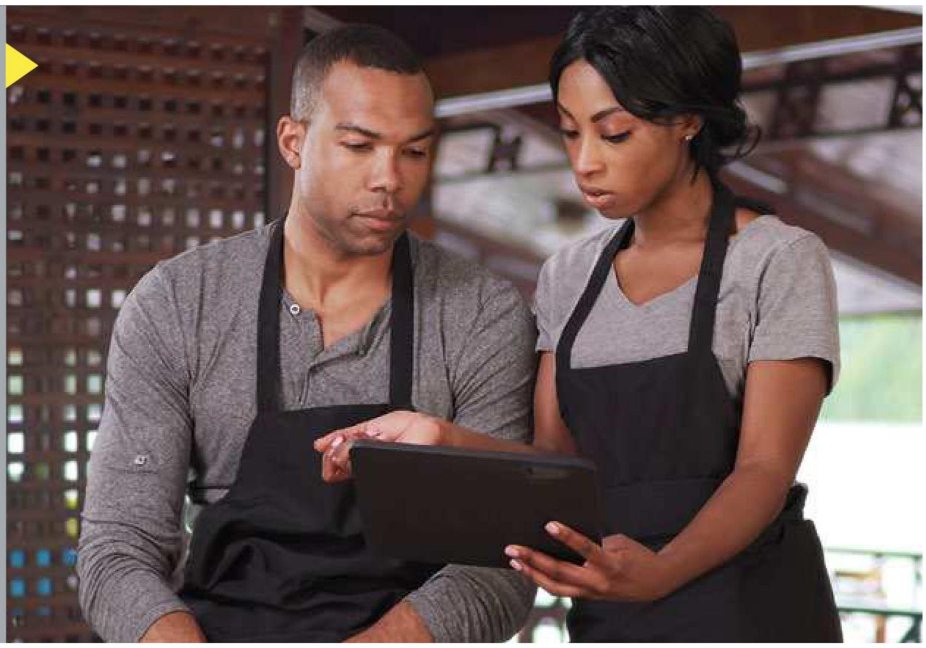
As one purpose of closing entries is to reset all revenue and expense accounts to zero, every account in these categories must be named in the general journal as part of the closing process.

When the expenses of a firm are being closed to the P&L Summary account, they can be grouped into one entry. When there are multiple revenue accounts, these can also be grouped together in one general journal entry.

This means that there will usually be three general journal entries made to complete the closing of the ledger:

- One journal entry is used to close all revenues.
- One journal entry closes all expenses.
- The final entry closes the P&L Summary account by transferring the net profit to the Capital account.

Employee wages are entered in the general journal.



10.4 TRANSFER OF NET PROFIT

Once all the balances of revenues and expenses have been transferred to the P&L Summary account, the final task is to calculate the profit (or loss) earned for the period.

This final step also closes off the P&L Summary account, because the difference between revenues and expenses is the profit figure. When the profit figure is entered in the P&L Summary account, both sides of the account become equal and the P&L Summary account is closed. The profit figure is transferred to the owner's Capital account and the closing process is concluded.

Using the data from Figure 10.2, the transfer of net profit is shown in Figure 10.3.

FIGURE 10.3 General journal entry to transfer net profit

GENERAL JOURNAL

Date	Details	Dr	Cr
31 Mar	P&L Summary	15 000	
	Capital		15 000
	Transfer of net profit		

DRAWINGS

In addition to the transfer of net profit to the Capital account, the drawings of the owner must also be closed at the end of the period. As Drawings is a negative owner's equity account, it decreases the owner's capital.

If the owner in our example had drawings of $10 000 for the quarter, the general journal entry required is as shown in Figure 10.4.

FIGURE 10.4 General journal entry to transfer drawings

GENERAL JOURNAL

Date	Details	Dr	Cr
31 Mar	Capital	10 000	
	Drawings		10 000
	Transfer of owner's drawings		

Posting the two journal entries shown in Figures 10.3 and 10.4 results in the following entries in the general ledger. (Note that there was an opening balance of $200 000 in the Capital account.)

Drawings

		$			$
31 Mar	Cash at bank	10 000	31 Mar	Capital	10 000

Capital

		$			$
31 Mar	Drawings	10 000	1 Mar	Balance	200 000
31 Mar	Balance	205 000	31 Mar	P&L summary	15 000
		215 000			215 000
			1 Apr	Balance	205 000

The first entry (on 1 March) represents the balance of the owner's capital at the start of the period. The result from the P&L Summary account (a profit of $15 000) has been transferred to the Capital account and causes an increase in the owner's equity.

The drawings by the owner have the opposite effect on the Capital account. The debit to Capital reduces the owner's equity, while returning the Drawings account to zero for the new period.

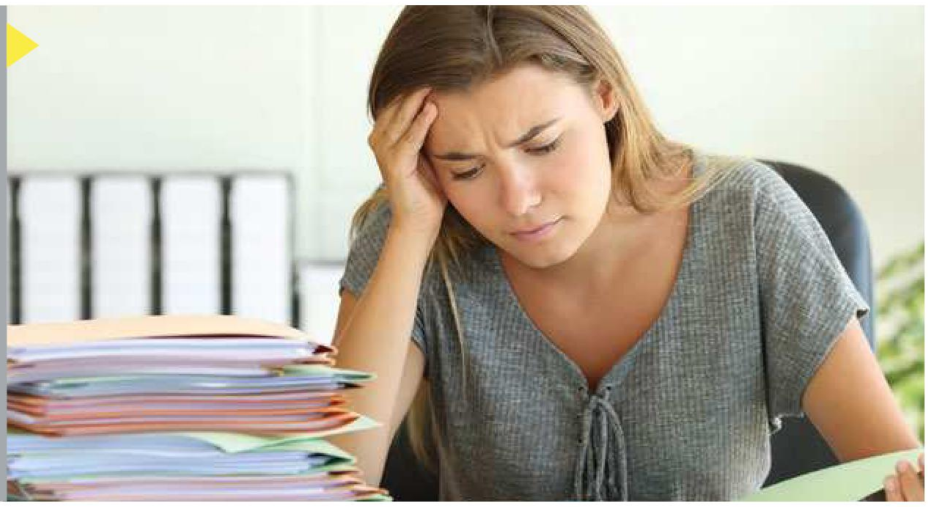
A summary of such information is usually presented as part of the firm's balance sheet on balance day.

BALANCE SHEET (EXTRACT) AS AT 31 MARCH 2023

Owner's equity	$	$	$
Capital	200 000		
Net profit	15 000	215 000	
Less: Drawings		10 000	205 000

THE NEED FOR REPORTING

Remember that the general ledger is a formal accounting record used by accountants. From time to time, information from ledger accounts is reported to other users, some of them non accountants. The report extract above repeats exactly what has been recorded in the owner's Capital account. It becomes part of an overall report that can be easily read by individuals without a thorough accounting background. (This is in line with one of the qualitative characteristics of accounting *understandability*.)



Report extracts may be easier for users to understand than the entire ledger.

While this may appear to be an unnecessary duplication of a task, it fulfils a key function of the accounting system. The system needs to present information for a variety of purposes and to a wide range of users. Accountants need to extract information from ledger accounts and use it to compile reports for others.

10.4 CHECK YOUR UNDERSTANDING

WB PAGE 182

1 What is the nature of the P&L Summary account? Explain your answer fully.

2 Determine which side (debit or credit) of the P&L Summary account you would find:
   - a revenue accounts
   - b expense accounts
   - c a net profit.

3 State the double entry required to transfer a net profit to a Capital account.

10.5 OTHER TYPES OF CLOSING ENTRIES

ACCOUNTING FOR A NET LOSS

net loss
result when the expenses for a period exceed the revenue for the same period

The closing entries so far have all involved a firm earning a profit. Unfortunately, this may not always be the case. When a business earns a **net loss**, a slight adjustment has to be made in the closing process.

A loss occurs when the expenses closed off to the P&L Summary account exceed the revenues. This means that the debit entries to P&L Summary exceed the credits.

To close off such a P&L Summary account, a credit entry is required. The corresponding debit is made in the Capital account, reducing the owner's equity.

Figure 10.5 shows a P&L Summary account when a business incurs a loss.

FIGURE 10.5 Profit and Loss Summary account showing a net loss

Profit and Loss Summary

2023		$	2023		$
30 Jun	Expense accounts	500 000	30 Jun	Revenue accounts	450 000
				Capital (net loss)	50 000
		500 000			500 000

The general journal entry required to transfer a net loss to the owner's Capital account is shown in Figure 10.6.

FIGURE 10.6 General journal entry showing transfer of a net loss

GENERAL JOURNAL

Date	Details	Dr	Cr
30 Jun	Capital	50 000	
	P&L Summary		50 000
	Transfer of net loss		

The journal entry to transfer a profit or a loss must transfer the final figure to the Capital account and also close off the P&L Summary account itself. Make sure that the total debits made to the P&L Summary account are equal to the total credit entries made.

Remember: a profit will always increase owner's equity and must be a credit to the Capital account. If a loss is made, this will decrease owner's equity and must result in a debit entry to Capital.

CLOSING THE SALES RETURNS ACCOUNT

Another complication in the closing process is when a trading business experiences sales returns (see chapter 8) from some of its accounts receivable. Sales Returns acts like a negative revenue account, and reduces the net sales reported for a given period.

Consider the following ledger accounts.

Credit sales

		$			$
			1–31 Jul	Accounts receivable	11 000

Sales returns

		$			$
1–31 Jul	Accounts receivable	1 000			

As both of the above are classified as revenue accounts (sales returns being negative revenue), they can both be closed off in the one closing entry (Figure 10.7).

FIGURE 10.7 General journal Closing entry for sales and sales returns

GENERAL JOURNAL

Date	Details	Dr	Cr
31 Jul	Credit sales	11 000	
	Sales returns		1 000
	P&L Summary		10 000
	Closing entries		

The amount transferred to the P&L Summary account is the net sales for the period. As the business sold goods on credit for $11 000 and had sales returns of $1000, the net sales for the period would be $10 000. This entry still returns the two revenue accounts back to zero balances, ready for the subsequent period.

Despite the fact that Sales Returns is netted off against the total sales made for the period, you should still report both items in the income statement for the period.

Revenue		
Credit sales	$11 000	
Less: Sales returns	$1 000	$10 000

10.5 CHECK YOUR UNDERSTANDING

WB PAGE 182

1. State the double entry required to transfer drawings to a Capital account.
2. Explain why the Drawings account is closed off to Capital and not to the P&L Summary account.
3. State the double entry required to transfer a net loss to a Capital account.

10.6 EXTENDED EXAMPLE: CLOSING THE LEDGER

You have examined all the steps involved in closing the ledger, but the process really starts with the preparation of the trial balance. Once a trial balance is prepared at the end of the period, and no recording errors are detected, the closing of the ledger can begin.

This extended example examines the entire closing process, from the trial balance through to the transfer of net profit and drawings. It shows the closing procedures from start to finish, so that you can follow the entries from the general journal through to the general ledger.

The information in this example relates to Sustainable Sunshine, a small business owned and managed by Simon Cartwright that sells solar panels and related technologies.

Sustainable Sunshine must close the ledger at the end of the financial year.

TRIAL BALANCE

SUSTAINABLE SUNSHINE: ADJUSTED TRIAL BALANCE AS AT 30 JUNE 2023

	$		$
Cash at bank	8 500	GST clearing	1 000
Accounts receivable	5 000	Accounts payable	1 500
Inventory	65 000	Loan – NAB	5 000
Cost of sales	24 000	Cash sales	55 000
Inventory loss	1 000	Credit sales	17 500
Insurance	2 000	Capital	80 000
Advertising	1 000		
Wages	20 000		
Sales returns	2 500		
Vehicle	22 000		
Vehicle expenses	2 000		
Drawings	7 000		
	160 000		160 000

GENERAL JOURNAL

In order to prepare the entries in the general journal, the revenue and expense accounts in the trial balance must first be identified. Having done this, the entries can be completed.

SUSTAINABLE SUNSHINE: GENERAL JOURNAL

Date	Details	Dr	Cr
30 Jun	Cash sales	55 000	
	Credit sales	17 500	
	Sales returns		2 500
	P&L Summary		70 000
	Closing entries		
30 Jun	P&L Summary	50 000	
	Cost of sales		24 000
	Inventory loss		1 000
	Advertising		1 000
	Insurance		2 000
	Wages		20 000
	Vehicle expenses		2 000
	Closing entries		
30 Jun	P&L Summary	20 000	
	Capital		20 000
	Transfer of net profit		
30 Jun	Capital	7 000	
	Drawings		7 000
	Transfer of owner's drawings		

The net profit is calculated from the first two journal entries.

GENERAL LEDGER

As total revenue closed to the P&L Summary account was $70 000 and total expenses closed off were $50 000, the net profit must be $20 000. These closing entries are then posted to the general ledger.

SUSTAINABLE SUNSHINE: GENERAL LEDGER

Cash at bank

		$			$
30 Jun	Balance	8 500			

Accounts receivable

		$			$
30 Jun	Balance	5 000			

Inventory

		$			$
30 Jun	Balance	65 000			

Cost of sales

		$			$
30 Jun	Inventory	24 000	30 Jun	P&L summary	24 000

Inventory loss

		$			$
30 Jun	Inventory	1 000	30 Jun	P&L summary	1 000

Insurance

		$			$
30 Jun	Cash at bank	2 000	30 Jun	P&L summary	2 000

Advertising

		$			$
30 Jun	Cash at bank	1 000	30 Jun	P&L summary	1 000

Wages

		$			$
30 Jun	Cash at bank	20 000	30 Jun	P&L summary	20 000

Sales returns

		$			$
30 Jun	Accounts receivable	2 500	30 Jun	P&L summary	2 500

Vehicle

		$			$
30 Jun	Balance	22 000			

Vehicle expenses

		$			$
30 Jun	Cash at bank	2 000	30 Jun	P&L summary	2 500

Drawings

		$			$
30 Jun	Cash at bank	7 000	30 Jun	Capital	7 000

GST clearing

		$			$
			30 Jun	Balance	1 000

Accounts payable

		$			$
			30 Jun	Balance	1 500

Loan â€“ NAB

		$	$		
			30 Jun	Balance	5 000

Cash sales

		$			$
30 Jun	P&L summary	55 000	30 Jun	Cash at bank	55 000

Credit sales

		$			$
30 Jun	P&L summary	17 500	30 Jun	Accounts receivable	17 500

BALANCE SHEET

Once the closing entries are completed, the final accounting reports for the period can be prepared. The accounts used to determine profit (revenues and expenses) are reported in the income statement. The balance sheet is then prepared using the remaining accounts (assets, liabilities and owner's equity).

Chapter 11 provides a detailed examination of the income statement. At this stage, it's enough to know that a balance sheet may be prepared once the P&L Summary account has been finalised.

Having completed the accounts for Sustainable Sunshine, the balance sheet can be prepared.

SUSTAINABLE SUNSHINE: BALANCE SHEET AS AT 30 JUNE 2023

Assets	$	$	Liabilities	$	$	$
Current assets			*Current liabilities*			
Cash at bank	8 500		GST clearing		1 000	
Accounts receivable	5 000		Accounts payable		1 500	
Inventory	65 000	78 500	Loan – NAB		5 000	7 500
			Owner's equity			
Non-current assets			Capital	80 000		
Vehicle		22 000	**Net profit**	20 000	100 000	
			Less: Drawings		7 000	93 000
		100 500				100 500

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10 CHAPTER REVIEW

KEY CONTENT

- [10.1] On balance day of a reporting period, all revenue and expense accounts are closed off and have a zero balance, so that one period's revenue and expenses aren't mixed up with those of the following period. This is called closing the general ledger, or just closing the ledger.
- [10.1] The Profit and Loss (P&L) Summary account is a general ledger account used to gather the balances of all revenue and expense accounts in order to calculate the net profit of a business. When accounts are closed off on balance day, their balances are transferred to the P&L Summary account.
- [10.2] Closing a ledger account involves making an entry in the account opposite to the balance. In a revenue account, entry is made on the debit side. In an expense account, entry is made on the credit side.
- [10.3] Three general journal entries are made to close the ledger: one to close all revenues, one to close all expenses, and one to close the P&L Summary account by transferring the net profit to the Capital account.
- [10.4] When the profit figure is entered in the P&L Summary account, both sides of the account become equal and the P&L Summary account is closed. The profit figure is transferred to the owner's Capital account.
- [10.5] The drawings of the owner must also be closed at the end of the period. As Drawings is a negative owner's equity account, it decreases the owner's Capital account.
- [10.5] A net loss occurs when the expenses closed off to the P&L Summary account exceed the revenues. This means that the debit entries to P&L Summary exceed the credits. To close off the account, a credit entry is needed, and a corresponding debit is made in the Capital account.
- [10.5] A trading business may have sales returns, which reduce the net sales reported for a given period. They are classified as revenue accounts and are included in the same closing entry.

CHAPTER 10 EXERCISES

1 Closing entries: basic

WB PAGE 183 SPREADSHEET

The following information relates to Prahran Pottery Products.

GENERAL LEDGER

Cash sales

		$			$
			31 Jan	Cash at bank	30 000

Cost of sales

		$			$
31 Jan	Inventory	16 200			

Vehicle expenses

		$			$
31 Jan	Cash at bank	2 800			

Capital

		$			$
			1 Jan	Balance	40 000

a Prepare the general journal entry to close the Cash Sales revenue account.

b Prepare the general journal entry to close the two expense accounts.

c Prepare the general journal entry to transfer the net profit (or loss) to the owner's Capital account.

d Prepare the P&L Summary account and the Capital account for the month of January 2023.

SPREADSHEET

2 Closing entries: advanced

WB PAGE 184

The following ledger accounts were found in the general ledger of Tee Total, a pop up shop selling novelty T shirts.

Cash at bank

		$			$
1 Feb	Balance	18 000	28 Feb	Cash payments	5 455
28 Feb	Cash receipts	5 060			

Inventory

		$			$
28 Feb	Balance	10 000	28 Feb	Cost of sales	2 560

Cost of sales

		$			$
28 Feb	Inventory	2 560			

Capital

		$			$
			1 Feb	Balance	23 000

Equipment

		$			$
1 Feb	Balance	5 000			
28 Feb	Cash at bank	2 000			

Advertising

		$			$
28 Feb	Cash at bank	500			

Insurance

		$			$
28 Feb	Cash at bank	400			

Drawings

		$			$
28 Feb	Cash at bank	500			

Wages

		$			$
28 Feb	Cash at bank	1 600			

Stationery

		$			$
28 Feb	Cash at bank	150			

Cash sales

		$			$
			28 Feb	Cash at bank	4 600

Credit sales

		$			$
			28 Feb	Accounts receivable	8 000

Accounts receivable

		$			$
28 Feb	Sales/GST clearing	8 800			

GST clearing

		$			$
28 Feb	Cash at bank	305	28 Feb	Cash at bank	460
				Accounts receivable	800

a Prepare the required general journal entries to close off the relevant ledger accounts to the P&L Summary account.

b Prepare general journal entries to transfer the net profit (or loss) and drawings to the Capital account of the owner.

c Copy the revenue and expense accounts and post the closing entries to these accounts.

d Prepare the P&L Summary account, the Capital account and the Drawings account as they would appear in the general ledger for February 2023.

e Show how the owner's equity section of the balance sheet would be prepared as at 28 February 2023.

SPREADSHEET

3 Closing entries from trial balance data

WB PAGE 186

Greg Smyth is the owner of Trailblazer Quad Bikes and has supplied the following trial balance at the end of the yearly reporting period.

TRAILBLAZER QUAD BIKES: TRIAL BALANCE AS AT 30 APRIL 2023

	$		$
Accounts receivable	3 200	Accounts payable	7 700
Advertising	3 500	Capital	93 350
Cash at bank	3 000	Cash sales	94 600
Cost of sales	42 500	Credit sales	14 470
Drawings	14 000	GST clearing	480
Electricity	760	Loan – GM Finance	36 000
Insurance	1 100	Mortgage loan	420 000
Interest on loan	4 700		
Office furniture	900		
Postage	120		
Premises	500 000		
Rates	1 000		
Sales returns	3 600		
Shop fittings	12 000		
Stationery	240		
Inventory	44 480		
Inventory loss	500		
Telephone expense	640		
Vehicle	12 000		
Vehicle expenses	1 360		
Wages	17 000		
	666 600		666 600

a Prepare all relevant closing entries in the general journal, including the transfer of profit and drawings.

b Prepare the P&L Summary account and Capital account in the general ledger.

c Prepare the owner's equity section of the balance sheet as at 30 April 2023.

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4 From trial balance to balance sheet

WB PAGE 188 SPREADSHEET

The following information relates to the business of Lloyd's Landscaping Supplies.

LLOYD'S LANDSCAPING SUPPLIES: TRIAL BALANCE AS AT 31 MAY 2023

	$	$
Cash at bank	3 200	
GST clearing		4 020
Telephone expense	740	
Electricity	530	
Inventory	59 000	
Discount revenue		680
Investment account	8 600	
Advertising	1 680	
Loan – Handy Finance		142 500
Accounts receivable	2 870	
Repairs to premises	1 040	
Capital – Lloyd		286 000
Assistant's wages	22 180	
Sales – cash		74 600
Sales – credit		38 700
Interest expense	1 470	
Sales returns	500	
Drawings – Lloyd	9 720	
Stationery	245	
Accounts payable		6 800
Cost of sales	53 200	
Commission		1 800
Accountant's fees	600	
Premises	385 000	
Inventory gain		400
Discount expense	325	
Cleaning of premises	4 600	
	555 500	555 500

a Prepare the general journal entries required to complete the closing of the general ledger, including the transfer of the net profit (or loss) and the owner's drawings.

b Prepare the following general ledger accounts: Profit and Loss Summary, Drawings and Capital.

c Prepare a classified balance sheet as at 31 May 2023.

d Explain why closing entries should be done. Your answer should refer to the relevant accounting assumption.

e Consider the level of sales returns experienced by this business. Should the owner be concerned? Explain your answer fully.

SPREADSHEET

5 From trial balance to balance sheet

WB PAGE 190

Carly Hughes is the owner of Higher & Higher, a paragliding equipment company, and has provided the following information in relation to her business.

HIGHER & HIGHER: ADJUSTED TRIAL BALANCE AS AT 30 JUNE 2023

	$	$
Accounts payable		5750
Accounts receivable	3 870	
Advertising	1 640	
Bank		1710
Capital – Hughes		75 740
Carry bags	1 420	
Cash sales		93 000
Cleaning of shop	1 260	
Computer equipment	8 500	
Cost of sales	47 300	
Credit sales		29 700
Delivery van	26 000	
Discount expense	100	
Drawings	18 500	
Electricity	490	
General office expenses	2 100	
GST clearing		2600
Interest on loan	1 200	
Interest on term deposit		600
Inventory	32 500	
Inventory loss	2 100	
Legal expenses	430	
Loan – Auto Finance (due 1/8/23)		13 400
Loan – NAB (repayable over four years)		12 000
Maintenance – computers	920	
Office stationery expense	430	
Rent of shop	32 400	
Sales returns	1 500	
Telephone expense	740	
Term deposit	14 500	
Wages – sales staff	36 600	
	234 500	234 500

a Prepare the general journal entries required to complete the closing of the general ledger, including the transfer of the net profit (or loss) and the owner's drawings.

b Prepare the following general ledger accounts: Profit and Loss Summary, Drawings and Capital.

c Prepare a classified balance sheet as at 30 June 2023.

6 From trial balance sheet to balance sheet

WB PAGE 192

SPREADSHEET

Aiko Nelson owns and manages Shokunin, a store selling Japanese artwork and decorations. She has provided the following information at the end of her yearly reporting period.

SHOKUNIN: ADJUSTED TRIAL BALANCE AS AT 31 MARCH 2023

	$		$
Accounts receivable	3 200	Accounts payable	25 000
Cash at bank	2 200	Capital	352 600
Computer maintenance	700	Discount revenue	100
Computer system	5 400	Finance Co. loan	22 000
Cost of sales	81 400	GST clearing	4 320
Courier charges	980	Mortgage loan	314 000
Discount expense	300	Sales – cash	122 100
Display equipment	25 000	Sales – credit	43 880
Drawings	18 600		
Heating and lighting	1 240		
Insurance expense	3 000		
Interest	6 400		
Inventory	56 350		
Inventory loss	800		
Land and buildings	642 000		
Office expenses	1 900		
Postage expense	650		
Promotion costs	3 120		
Rates	2 400		
Salaries	26 000		
Sales returns	1 440		
Telephone expense	920		
	884 000		884 000

Additional information

The Finance Co. loan is repayable at the rate of $200 per week.

The mortgage loan requires monthly repayments of $650.

a Prepare all relevant closing entries in the general journal, including the transfer of profit and drawings.

b Prepare the P&L Summary account, the Drawings account and the Capital account in the general ledger.

c Prepare a fully classified balance sheet as at 31 March 2023.

d Explain how your balance sheet helps satisfy the demands of the characteristic of understandability.

CHAPTER CHECKLIST

Now that you have finished Chapter 10, double check your progress.

Are you ready for your Unit 3 assessment?

I have ...

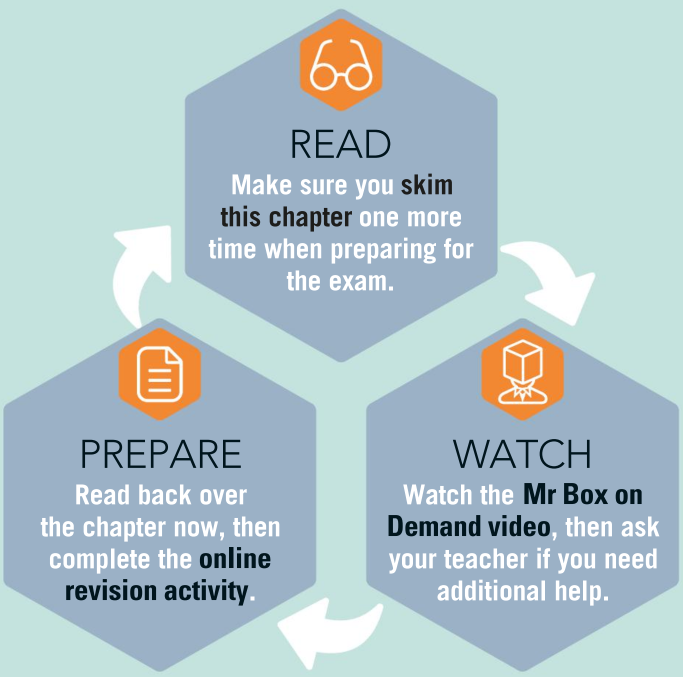
- completed all 'Check Your Understanding' questions
- completed all exercises
- handed in my workbook for marking.

I understand ...

- the recording of closing entries for revenue and expenses in the General Journal and in the General Ledger
- the preparation of the Profit and Loss Summary account in the General Ledger with transfer of profit or loss to the Capital account in the General Journal and the General Ledger.

I can ...

- identify and record financial data manually in the General Journal and the General Ledger and manually prepare accounting reports
- use ICT, including spreadsheets, to record transactions in the General Journal and the General Ledger and prepare accounting reports.



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11 INCOME STATEMENTS

In Chapter 10 you learnt how to close the general ledger at the end of each reporting period. As part of this process, the P&L summary works out the profit (or loss) for the period and shows it in the general ledger. But how can that information be summarised more effectively?

In this chapter you will learn how to create income statements, which provide information about a business's revenue, expenses and profit for a particular period.

LEARNING OBJECTIVES

By the end of this chapter, you will be able to:

- explain the purpose of an income statement [11.1]
- prepare an income statement from general journal closing entries [11.1]
- prepare an income statement from a trial balance [11.1]
- evaluate a profit figure using a variety of benchmarks [11.2]
- explain the classification title 'cost of goods sold' [11.3]
- distinguish between cost of sales and cost of goods sold [11.3]
- distinguish between gross profit and adjusted gross profit [11.3]
- explain how to report discount expense and discount revenue [11.4].

11.1 PREPARING AN INCOME STATEMENT

The Profit and Loss (P&L) Summary account in the general ledger closes off revenue and expense accounts on balance day. This closing off procedure is necessary because the balances in those accounts aren't relevant to the following reporting period.

income statement accounting report used to show a business's revenue, expenses and net profit (or loss)

The **income statement** is a key accounting report. Prepared at the end of each period, it provides information about a business's revenue, expenses and profit (or loss). It includes the same information as the P&L Summary account, but sets it out in a more informative manner.

When creating income statements, two of the qualitative characteristics of accounting reports need to be considered:

- *Relevance:* the income statement should convey meaningful information to its users.
- *Understandability:* it should have a simple, clear format that non accountants can easily understand.

PURPOSE OF AN INCOME STATEMENT

The basic purpose of the income statement is to report on a business's profit performance over a given period. In order to do so, the report states the business's revenue for the period and deducts its expenses. The difference is the net profit (or loss).

Consider the general journal shown below, which includes the closing entries made on 31 December 2023 in the books of Sparx Surfboards.

SPARX SURFBOARDS: GENERAL JOURNAL CLOSING ENTRIES

Date	Details	Dr	Cr
31 Dec	Cash sales	90 000	
	Credit sales	40 000	
	P&L summary		130 000
	Closing entries		
	P&L summary	105 000	
	Cost of sales		55 000
	Advertising		5 000
	Wages		19 500
	Telephone		600
	Stationery		400
	Office rent		24 000
	Delivery expenses		500
	Closing entries		
	P&L summary	25 000	
	Capital		25 000
	Transfer of net profit		

The general journal entries are posted to the P&L Summary account as shown below.

P&L summary

		$			$
31 Dec	Expense accounts	105 000	31 Dec	Revenue accounts	130 000
	Capital	25 000			
		130 000			130 000

The P&L Summary account shows the net profit figure, and all revenue and expense accounts have been closed. However, there is still a need to provide information about the revenue and expenses of a business in a clear, informative manner.

Sparx Surfboards' income statement allows its profitability to be understood.

DESIGNING AN INCOME STATEMENT

Using the information provided above, a formal income statement can be prepared for Sparx Surfboards. Figure 11.1 shows a typical layout.

FIGURE 11.1 Income statement

SPARX SURFBOARDS: INCOME STATEMENT FOR THE YEAR ENDED 31 DECEMBER 2023

	$	$
Revenue		
Cash sales	90 000	
Credit sales	40 000	130 000
Less: Cost of sales		55 000
Gross profit		75 000
Less: Expenses		
Advertising	5 000	
Wages	19 500	
Telephone	600	
Stationery	400	
Office rent	24 000	
Delivery expenses	500	50 000
Net profit		25 000

Headings and labels are used to highlight the key areas of the report. For example, the gross profit made on the sales is clearly labelled, as is the net profit.

The title of the report indicates the reporting period. This is vital when evaluating the performance of a business. For example, Figure 11.1 shows a profit of $25 000 for the reporting period this amount of profit might be satisfactory over six months, or exceptional over a quarter (three months), but very poor for an entire year.

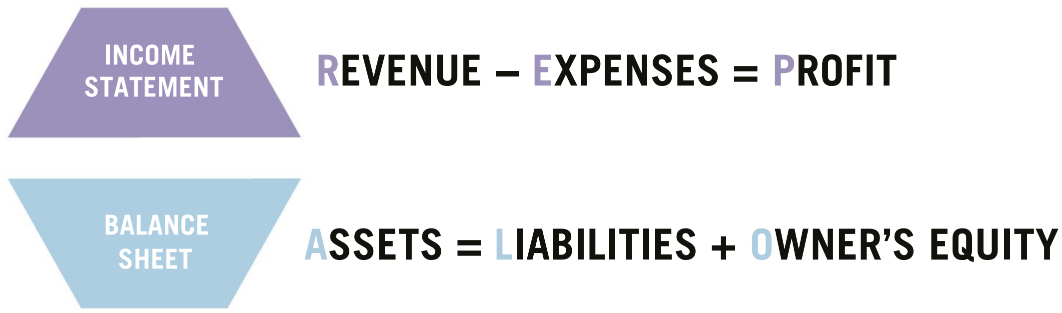
The period covered is also important when comparing results. There is little point in comparing profit for six months with a weekly result.

THE LINK BETWEEN PROFIT AND THE BALANCE SHEET

As you saw in Chapter 10, the net profit or loss earned by a business affects the owner's equity as reported in the balance sheet. As the owner is entitled to all profits earned by the business, the net profit becomes part of the owner's equity. If the business suffers a loss, this causes a decrease in the owner's equity, which is also reported in the balance sheet.

Once a trial balance has been finalised, the income statement and balance sheet can be prepared. These two reports take care of the five basic classifications of accounts that we looked at in Chapter 1, as shown in Figure 11.2.

FIGURE 11.2 The link between the income statement and the balance sheet



Remember: owner's equity = capital + profit drawings

At this point, the basic accounting system has been used from start to finish:

- Source documents have been gathered.
- Transactions from those documents have been entered in the general journal.
- The general journal has been posted to ledger accounts.
- A trial balance has been used to check the accounts.
- The information in the trial balance has been used to prepare the two main financial statements.

This system allows a business owner to determine a net profit result for a period, and to state the accounting equation of the business at the end of that period.

11.1 CHECK YOUR UNDERSTANDING

WB PAGE 195

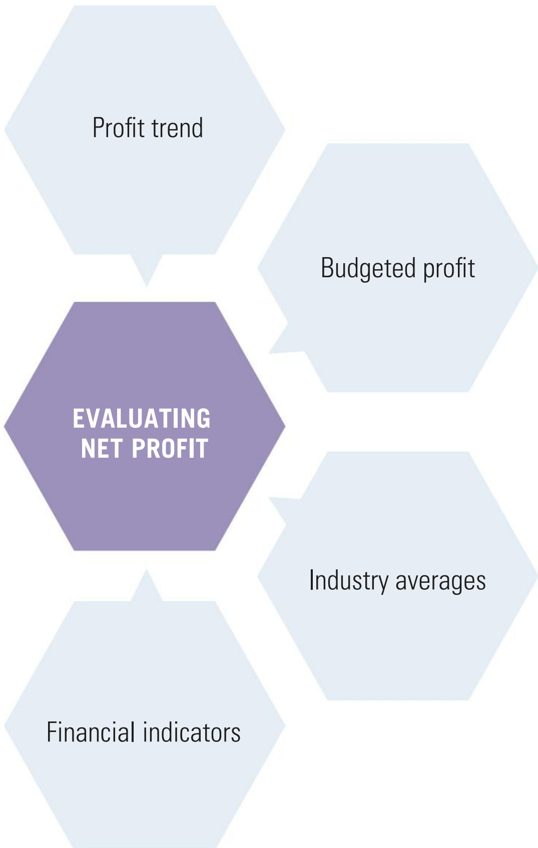
1. Explain the basic function of an income statement.
2. Should a business owner have to prepare an income statement if they have already completed a P&L Summary account? Explain your answer fully.
3. Outline the link between the income statement and the balance sheet of a business.

11.2 EVALUATING A NET PROFIT FIGURE

When an income statement has been completed, it's not the end of the accounting process. Management needs to be able to assess the profit figure, in order to tell how the business is performing.

The period covered is a basic consideration when evaluating the profit earned, but several other measures are also commonly used to evaluate profit (see Figure 11.3).

FIGURE 11.3 **Measures for evaluating net profit**



PROFIT TREND

Comparing the profit earned in the current period with that earned in previous periods provides management with a profit trend over time. This could indicate an improvement or a decline in the profit performance. Two or three consecutive profit figures provide much more information than one isolated period.

EXAMPLE 11.1

Consider the profit figures of the two businesses shown below.

Profits earned in	2019	2020	2021	2022	2023
	$	$	$	$	$
Business A	1 000	5 000	20 000	40 000	45 000
Business B	90 000	80 000	70 000	60 000	45 000

If you viewed 2023 in isolation, the only statement you could make would be that both businesses earned a profit of $45 000. However, the performance of the two businesses is very different when the five-year trend is taken into account.

BUDGETED (OR EXPECTED) PROFIT

Regardless of the trend in a business's profit figures, the profit earned may not be acceptable if it doesn't meet management's expectations.

EXAMPLE 11.2

Looking back to Business A in Example 11.1, the budgeted profit for 2023 was $50 000.

Profits earned in	2019	2020	2021	2022	2023	2023
					Budget	Actual
	$	$	$	$	$	$
Business A	1 000	5 000	20 000	40 000	50 000	45 000

While there is a favourable trend when the 2023 profit is compared with the profit in previous years, management wouldn't be as pleased, because the business didn't achieve its profit target of $50 000.

INDUSTRY AVERAGES

Information may be available to indicate whether or not the business performed as well as similar businesses. In the case of public companies, detailed statistics are available regarding profit performance. In the case of smaller businesses, a public accountant may be able to indicate whether or not the business is performing above or below the typical level for that type of business.

FINANCIAL INDICATORS

profitability
a comparison of the profit earned with an investment made

return on assets
a financial indicator that compares net profit with the total assets of the business

return on owner's investment
a financial indicator that compares net profit with the capital invested by the owner

Several indicators can be used to evaluate the **profitability** of a business. Profitability compares the profit earned with an investment made.

While *profit* is simply the excess of revenue over expenses, *profitability* measures the net profit earned against the resources available to earn the profit.

One financial indicator used to measure profitability is **return on assets**. This indicator compares the net profit for a period with the average total assets under the control of the business (net profit/average assets) to show how effectively the assets have been used to earn a profit.

A second profitability ratio is **return on owner's investment**. This indicator compares the net profit with the average capital of the owner (net profit/average capital).

These indicators will be examined in detail in Unit 4.

11.2 CHECK YOUR UNDERSTANDING

WB PAGE 196

1 Describe four different measures that can be used to evaluate the profit performance of a small business.
2 Explain how 'trend analysis' can assist management when they are evaluating a profit result.
3 'Industry averages are not valid as my business is unique.' Do you agree with this business owner? Discuss.

11.3 COST OF GOODS SOLD AND GROSS PROFIT

An income statement is prepared to determine the net profit of a business over a period of time. It can also show the gross profit for a trading business.

In Figure 11.1, gross profit was shown as the result of deducting cost of sales from sales revenue. The figure shows the difference between the selling price of inventory (sales) and the cost price of inventory sold (cost of sales). This definition of gross profit may be expanded further to include other expenses incurred in the buying of inventory for resale.

Cost of goods sold includes any expenses incurred in the purchasing of inventory and preparing it for sale. It includes items such as cost of sales, cartage inwards, buying expenses, customs duty on imports, and packaging costs. All expenses that are involved with getting inventory on display and ready for sale are included in cost of goods sold. Figure 11.4 shows some of these expenses.

cost of goods sold subheading in an income statement that includes all expenses incurred in purchasing inventory and getting items ready for sale

FIGURE 11.4 Cost of goods sold in an income statement

CHEFMASTER CATERING SUPPLIES: INCOME STATEMENT FOR THE YEAR ENDED 30 JUNE 2023

	$	$
Revenue		
Cash sales	150 000	
Credit sales	120 000	270 000
Less: Cost of goods sold		
Cost of sales	135 000	
Cartage inward	2 000	
Buying expenses	3 000	140 000
Gross profit		130 000
Less: Inventory loss		2 000
Adjusted gross profit		128 000
Other revenue		
Interest revenue		1 000
		129 000
Less: Other expenses		
Cartage outward	1 000	
Advertising	14 000	
Office expenses	12 000	
Interest	2 000	29 000
Net profit		100 000

EXAM SUCCESS
Make sure that you follow this format for the income statement. Marks may be deducted if this format is not followed

RECORDING REVENUE AND EXPENSES

Inventory losses or gains should be reported as an adjustment to the gross profit figure for the period. This produces an **adjusted gross profit**, which is simply gross profit less any inventory losses (or plus any inventory gains) that may have occurred. This allows comparisons of gross profit without other data, such as inventory losses.

adjusted gross profit result of adjusting gross profit for either an inventory loss or inventory gain

If a trading business earns revenue in addition to its cash and credit sales, such items may be added to the adjusted gross profit. An alternative is simply to list all revenue items together in the revenue section of the report. However, some managers prefer to keep minor items such as interest and commission revenue separate, as they can make comparisons of gross profit results difficult to interpret if they are bundled up with the normal sales revenue.

cartage inward
expense incurred when inventory is delivered into a business

cartage outward
expense incurred when inventory is delivered to a customer

'Cartage' is the cost of postage, handling and transporting inventory. In Figure 11.4, **cartage inward** is listed under 'Cost of goods', as it's a cost incurred in bringing inventory into the business.

Cartage outward, on the other hand, is the cost of delivering inventory to customers once it has been sold. It's listed with all the other expenses that aren't involved with buying and preparing goods for sale.

Cartage is the cost of delivering inventory to or from a business.

CALCULATING NET PROFIT

EXAM SUCCESS
In your exam, **other revenue** should be reported as a distinct item, as shown in Figure 11.4.

Items such as cartage inward and buying expenses are included as cost of goods sold because they are indirectly part of the cost of inventory that is, they must be paid in order to get inventory ready for sale. They are reported in the top section of the income statement and are taken into account when determining the gross profit for the period.

Having determined this figure, the other expenses are deducted to calculate the final net profit figure.

11.3 CHECK YOUR UNDERSTANDING

WB PAGE 197

1 Distinguish between the terms 'cost of sales' and 'cost of goods sold'.
2 Name three different items that may appear in an income statement under the heading 'Cost of goods sold'.
3 A decrease in net profit indicates poor expense control by the management of the business. Do you agree? Discuss.

11.4 REPORTING DISCOUNTS

All revenues and expenses should be reported in the income statement at the end of a reporting period. A business that both buys and sells on credit may have recorded discount expense or revenue during any given period. How should these discounts be reported?

Discount revenue, as the name implies, is a revenue item because it occurs as a result of a reduction in the outflows payable to liabilities, which leads to an increase in owner's equity (through an increase in net profit). However, discount revenue is never the main source of revenue for a trading business, so it should be reported under the heading of 'Other revenue'.

Discount expense is listed with all other normal expense items. Discounts granted to credit customers represent a reduction in the inflows from accounts receivable, which lead to a decrease in owner's equity (through a decrease in net profit).
The business is sacrificing some of the money that is owed to it by its accounts receivable. Figure 11.5 shows this treatment of discounts.

EXAM SUCCESS
While there are several ways to report discounts, this is the method preferred for VCE exams.

FIGURE 11.5 Reporting discounts in the income statement

Revenue		$	$
	Sales		88 000
Less:	Cost of goods sold		
	Cost of sales		42 000
Gross profit			46 000
	Other revenue		
	Discount revenue		1 000
			47 000
Less:	**Other expenses**		
	Wages	5 000	
	Discount expense	2 000	7 000
Net profit			40 000

Reporting discounts this way ensures that the gross profit reported for the period isn't distorted by any discounts granted by suppliers or allowed to customers. This is important when assessing the performance of a business.

11.4 CHECK YOUR UNDERSTANDING

WB PAGE 197

1 Where should discounts be reported in an income statement? Describe the correct method of reporting both discount expense and discount revenue.
2 Explain why revenue items such as interest revenue and discount revenue shouldn't be added to sales revenue in an income statement.
3 A business owner has collected GST of $500 during the month. As the business has experienced an inflow of resources, the owner intends to report the $500 as revenue for the month. Is this correct accounting treatment? Explain your answer fully.
4 Explain why discount revenue is classified as a revenue item. Refer to the definition of revenue in your answer.

11 CHAPTER REVIEW

KEY CONTENT

- **[11.1]** The income statement is a key accounting report that provides information about a business's revenue, expenses and profit. Its purpose is to report on the profit performance of the business over a given period.
- **[11.1]** Once a trial balance has been finalised, the income statement and balance sheet can be prepared. These two reports take care of the five basic classifications of accounts.
- **[11.2]** Several measures can be used to evaluate net profit, such as the length of the reporting period, the profit trends, whether the budgeted profit was achieved, or comparison against industry averages.
- **[11.3]** An income statement can also show the gross profit for a trading business. This figure shows the difference between the selling price of inventory and the cost price of inventory sold. The heading 'Cost of goods sold' is used to include any expenses incurred in purchasing inventory.
- **[11.4]** Businesses should record any discount expense and/or revenue during any given period. Discount revenue should be reported under the heading of 'Other revenue'. Discount expense is listed with all other normal expense items.

CHAPTER 11 EXERCISES

WB PAGE 199

SPREADSHEET

1 Income statement from closing entries

Matthew Sauro is the proprietor of Mediterranean Herb Wholesalers. On 1 March 2023, Sauro's Capital account has a balance of $65 000. The following closing entries are extracted from the books of the business at the end of March 2023.

MEDITERRANEAN HERB WHOLESALERS: GENERAL JOURNAL

Date	Details	Dr	Cr
31 Mar	Cash sales	24 000	
	Credit sales	26 000	
	P&L summary		50 000
	Closing entries		
	P&L summary	26 600	
	Cost of sales		23 400
	Advertising		1 200
	Postage		200
	Office expenses		600
	Assistant's wages		1 200
	Closing entries		
	P&L summary	23 400	
	Capital		23 400
	Transfer of net profit		

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a Prepare an income statement for the month ended 31 March 2023.

b Prepare an extract from the balance sheet as at 31 March 2023 to show the owner's equity section, including the additional detail that Sauro had drawings of $10 700 during March.

2 Income statement from closing entries

WB PAGE 200

SPREADSHEET

Wilson's Winterwear is owned and managed by Therese Wilson. She has just completed her closing entries for the year ended 30 June 2023. On 1 July 2022, Wilson's Capital account had a credit balance of $87 600. The closing entries prepared by Wilson are listed below.

WILSON'S WINTERWEAR: GENERAL JOURNAL

Date	Details	Dr	Cr
31 Mar	Cash sales	125 000	
	Credit sales	35 000	
	Discount revenue	500	
	Sales returns		1 500
	P&L summary		159 000
	Closing entries		
	P&L summary	103 000	
	Part-time wages		25 700
	Carry bags		620
	Courier expenses		280
	Stationery expenses		770
	Insurance		3 400
	Discount expense		230
	Cost of sales		72 000
	Closing entries		
	P&L summary	56 000	
	Capital		56 000
	Transfer of net profit		
	Capital	10 600	
	Drawings		10 600
	Transfer of owner's drawings		

a Prepare an income statement for the year ended 30 June 2023.

b Prepare the owner's equity section of the balance sheet as at 30 June 2023.

3 Income statement from trial balance

WB PAGE 201

SPREADSHEET

The following trial balance is provided at the end of a quarterly reporting period.

MECHA-KAIJU MODELS: TRIAL BALANCE AS AT 31 MARCH 2023

	$		$
Cash at bank	5 200	Loan – NAB	2 000
Rent	16 600	Sales revenue	71 900
Accounts receivable	5 500	Accounts payable	1 000
Stationery expense	100	Capital	59 000
Telephone expenses	350	GST clearing	1 100
Cleaning	440		

Inventory	59 400		
Interest expense	480		
Drawings	3 400		
Sales returns	5 100		
Cost of sales	36 400		
Discount expense	130		
Office furniture	1 900		
	135 000		135 000

a Prepare an income statement for the quarter ended 31 March 2023.

b Prepare a balance sheet as at 31 March 2023.

SPREADSHEET

4 Income statement from trial balance

WB PAGE 202

Jack Chrystie is the proprietor of Chapel Street Formal Wear. He has provided the following trial balance at the end of the business's reporting period.

CHAPEL STREET FORMAL WEAR: ADJUSTED TRIAL BALANCE AS AT 31 JULY 2023

	$		$
Accounts receivable	11 500	Accounts payable	6 200
Advertising	1 600	Capital	56 580
Carry bags	360	Cash sales	52 000
Cartage inward	180	Credit sales	53 000
Cash at bank	880	Discount revenue	210
Cleaning	1 200	GST clearing	3 000
Computer	3 200	Loan (due 31/7/24)	29 000
Cost of sales	48 000		
Discount expense	150		
Electricity	1 400		
Furniture	12 300		
Insurance	500		
Interest	230		
Inventory	53 700		
Rent	12 400		
Security expenses	1 500		
Stationery expense	430		
Telephone expenses	560		
Vehicle	36 500		
Vehicle expenses	1 600		
Wages – assistant	11 800		
	199 990		199 990

a Prepare an income statement for the year ended 31 July 2023.

b Prepare a classified balance sheet as at 31 July 2023.

5 Income statement with inventory loss

WB PAGE 203

The following balances are extracted from the trial balance of Costello's Auto Shop as at 30 June 2023.

	$		$		$
Advertising	1 600	Cash sales	35 000	Accounts payable	2 300
Wrappings	1 080	Cost of sales	28 500	Telephone	170
Accounts receivable	430	Buying expenses	300	Interest expense	400
Equipment	14 000	Accounting fees	200	Inventory	32 000
Legal fees	270	Stationery expense	140	Bank overdraft	1 100
GST clearing	100	Sales returns	1 000	Credit sales	32 000
Inventory loss	2 000	Cartage inwards	500		

a Select the relevant information from above and prepare an income statement for the quarter ended 30 June 2023.

b Suggest three different ways of evaluating the net profit you determined in part **a**.

6 Full income statement

WB PAGE 204

SPREADSHEET

The proprietor of Bayswater Boutique has supplied the following information about her business for the year ended 30 April 2023.

	$		$		$
Wages – assistant	36 000	Shop fittings	19 400	Accounts receivable	2 200
Cost of sales	45 300	Telephone expense	940	Cleaning	2 400
Loan (due 2025)	4 000	Interest on loan	440	Legal fees	600
Accounts payable	1 900	Discount expense	180	Electricity	2 280
Sales	98 150	Cash at bank	800	Advertising	800
Cartage inward	450	Office equipment	9 400	Debt agency fees	600

Using the relevant information from the list above, prepare an income statement for Bayswater Boutique for the year ended 30 April 2023. Your report should highlight figures for both gross and net profit, as well as the total expenses incurred by the business.

SPREADSHEET

7 Income statement and balance sheet

WB PAGE 205

The following information relates to a comic shop owned and operated by Carolyn McCarthy.

FIVE-STAR COMICS & GRAPHIC NOVELS: ADJUSTED TRIAL BALANCE AS AT 31 MARCH 2023

	$	$
Premises	850 000	
Term deposit account (matures 2026)	14 000	
Mortgage loan		535 000
Newspaper advertisements	1 050	
Cleaning of shop	5 200	
Office equipment	4 200	
Interest on loan	7 200	
Accounting fees	1 600	
Accounts payable		7 700
Cash at bank		13 850
Sales assistant's wages	22 000	
Drawings	2 340	
Cost of sales	47 320	
GST clearing		2 900
Accounts receivable	1 830	
Shop fittings	19 300	
Telephone expense	810	
Equipment	9 000	
Rates	1 200	
Inventory	74 600	
Cash sales		109 720
Electricity	660	
Inventory loss	800	
Interest revenue		370
Capital – McCarthy		393 570
	1 063 110	1 063 110

a Prepare an income statement for the year ended 31 March 2023.

b Prepare a classified balance sheet as at 31 March 2023.

CASE STUDY

WB PAGE 206 SPREADSHEET

The owner of Calder Car Parts isn't sure how to prepare accounting reports. The following account balances were extracted from the trial balance of the business.

CALDER CAR PARTS: ACCOUNT BALANCES AS AT 31 MARCH 2023

	$		$
Cost of sales	86 500	Cash at bank	3 200
Shop shelving	10 200	Advertising	8 600
Delivery vehicle	32 000	Accounts receivable	4 300
Shop wages	32 000	Cash sales	93 200
Interest on loans	8 700	Accounts payable	5 040
Loan from NAB	82 000	Discount expense	1 240
Drawings	20 000	Credit sales	84 800
Premises	232 000	Vehicle expenses	4 400
Office expenses	10 200	Inventory	58 700
GST clearing	1 300	Sales returns	2 400
Capital	?		

Additional information

- Two of the business's inventory cards didn't reconcile with a physical stocktake completed on 31 March 2023. One inventory card revealed an inventory gain of one set of car seat covers, which costs $30 and sells for $59. The other had an inventory loss of 18 sets of wheel trims. These units sell for $49 each and were originally purchased for $35 each. All other inventory cards were reconciled with the units identified in the stocktake.
- The loan from NAB is repayable at $145 per week.

---

a Prepare an income statement for the year ended 31 March 2023. Your statement should be prepared to highlight both gross and net profit results.

b Prepare a classified balance sheet as at 31 March 2023.

c Explain how the value reported for vehicles in your balance sheet would have been determined. Refer to a qualitative characteristic that is relevant to the value being reported.

d Give two reasons to explain your classification of the GST Clearing account.

CHAPTER CHECKLIST

Now that you have finished Chapter 11, double check your progress.
Are you ready for your Unit 3 assessment?

I have ...

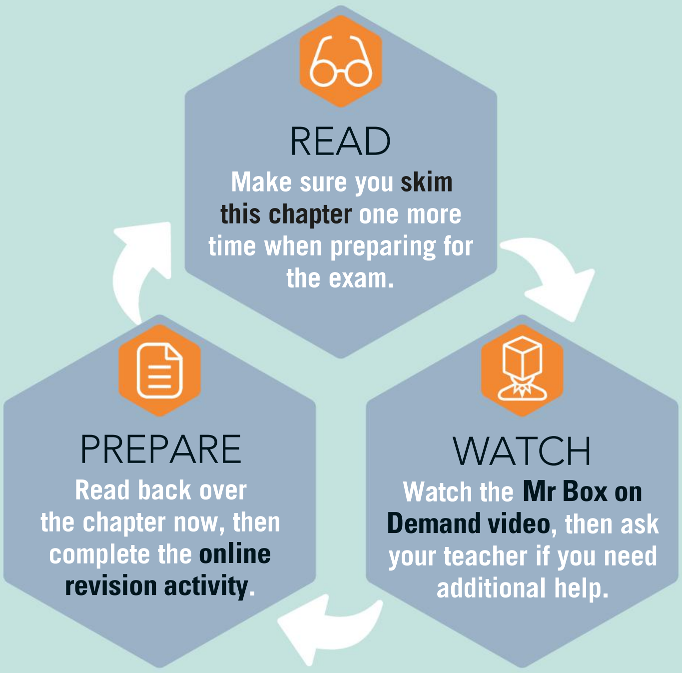
- completed all 'Check Your Understanding' questions
- completed all exercises
- completed the end of chapter activities
- handed in my workbook for marking.

I understand ...

- characteristics and use of classified accounting reports: Income Statement
- the effect of transactions on the accounting reports
- financial indicators and non financial information used to measure business performance
- the distinction between cash and profit.

I can ...

- analyse the effect of financial transactions on the accounting equation
- identify and record financial data manually in the General Journal and the General Ledger and manually prepare accounting reports
- use ICT, including spreadsheets, to record transactions in the General Journal and the General Ledger and prepare accounting reports.



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12 CASH FLOW STATEMENTS

Chapter 11 explained how the balance sheet and income statement report on the main components of the accounting system. However, these two statements aren't the only necessary or useful accounting reports.

In this chapter, you will learn about cash flow statements, which provide information about the movement of cash into and out of a business.

LEARNING OBJECTIVES

By the end of this chapter, you will be able to:

- describe the role played by a cash flow statement **[12.1]**
- outline the additional information revealed by a cash flow statement **[12.1]**
- classify cash flows into the areas of operating, investing and financing activities **[12.2]**
- describe the basic format of a cash flow statement **[12.3]**
- prepare a cash flow statement **[12.3]**
- analyse and interpret results as stated in a cash flow statement **[12.4]**
- explain how a cash flow statement can assist management decision making **[12.4]**.

UNIT 3 – PROGRESS 1 2 3 4 5 6 7 8 9 10 11 12 13

12.1 The role of the cash flow statement

12.2 Classification of cash flows

12.3 Designing and preparing a cash flow statement

12.4 Cash flows and decision making

Chapter review and exercises

12.1 THE ROLE OF THE CASH FLOW STATEMENT

An income statement is prepared at the end of a period to determine a business's profit or loss over that particular period of time. A balance sheet is also prepared to provide a snapshot of the business on balance day. Although these are two of the main accounting reports, they don't satisfy all the demands for information about a business.

cash flow statement an accounting report used to show all inflows and outflows of cash during a reporting period, and the cash balance at the end of that period

Accounting standards also require the preparation of a report known as a **cash flow statement**. This report concentrates solely on cash flows and is a valuable tool for parties wishing to evaluate a business's operations. The use of this report is comparatively recent and reflects the importance now placed on cash management.

The role of the cash flow statement is to complete the picture provided by the other two general accounting reports:

- The income statement reports on revenues earned and expenses incurred.
- The balance sheet reports on the business's financial position at a particular point in time.

Together, the income statement, the balance sheet and the cash flow statement provide a summary of a business's operating performance and financial standing.

As the cash flow statement concentrates on movements of cash in and out of the business, it offers insights into the business that the other two key accounting reports don't. Specifically, it provides information relating to areas such as:

- the net cash inflows generated by trading operations
- the business's ability to meet obligations to accounts payable and its bankers
- the business's long term capital and debt arrangements
- cash flows resulting from investing activities.

In order to survive, a business must manage its cash resources. A business may earn a substantial profit, but this will be of little use if it doesn't result in cash inflows. Expenses have to be paid, and loans repaid, and the owner may have their own demands for personal drawings. Therefore, the cash flow statement isn't simply a valuable report for external users. Management should regularly prepare such a report in order to gain all the relevant information about their business's activities.

Cash includes all cash on hand and any other cash equivalents held by a business.

THE CONCEPT OF CASH

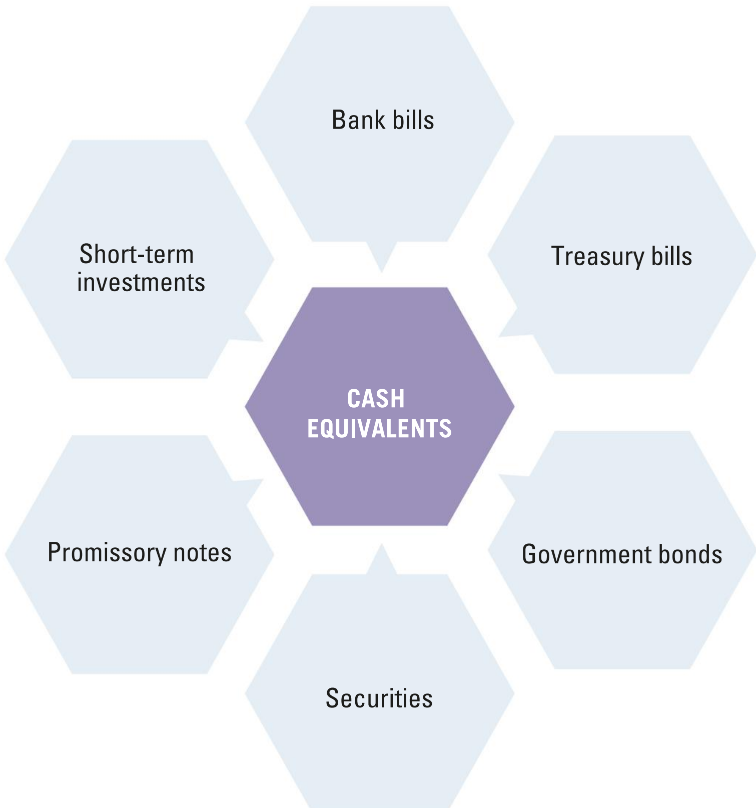
In the cash flow statement, **cash** includes all cash on hand and any other **cash equivalents** held by a business. The definition of cash means cash on hand, cash at bank and cash held with non banking financial institutions on an at call basis.

Cash equivalents extends this definition to include items such as short term cash deposits, bills receivable created by promissory notes, and other short term investments such as bank bills and treasury bills. Such short term items can include investments with a maturity date ranging from at call up to two or three months into the future. Therefore, cash equivalents relate to liquid short term assets. Figure 12.1 shows a number of possible cash equivalents.

cash
all money on hand plus cash equivalents

cash equivalents
short-term liquid assets that can be converted into cash quickly

FIGURE 12.1 Cash equivalents



As the cash flow statement examines changes in a business's cash position, it also takes into account short term borrowings such as bank overdrafts. A business may have a fluctuating bank balance that drops into an overdraft position several times during a given period. Any review of a business's cash position should reflect the use of such short term arrangements.

If a business has an overdraft reported on balance day, it should also be included under the definition of cash and cash equivalents. The only difference is that an overdraft would be treated as a negative item when determining the total of cash held.

12.1 CHECK YOUR UNDERSTANDING

WB PAGE 209

1. Outline the general purpose of a cash flow statement.
2. A cash flow statement provides additional information to that of other accounting reports. Suggest three questions to which management can find answers in a cash flow statement.
3. Explain what 'cash' means when it is used in relation to a cash flow statement.

12.2 CLASSIFICATION OF CASH FLOWS

The accounting standards require the reporting of cash flows under three main classifications operating activities, investing activities and financing activities.

CASH FLOWS FROM OPERATING ACTIVITIES

cash flows from operating activities
cash flows that result from the day-to-day operations of a business

Cash flows from operating activities are cash flows that result from the provision of goods and services in the day to day business operations of a business. Operating activities include many of the receipts and payments that would normally appear in a business's income statement. Examples are payments to suppliers and employees, payments for goods and services, and receipts from customers that result from the business supplying goods or providing services.

Keep in mind that there will be some items in an income statement that don't relate directly to cash flows. For example, depreciation of non current assets doesn't involve a movement of cash, and shouldn't be included in a cash flow statement. Furthermore, an income statement prepared using the accrual method of accounting states revenues and expenses for a period, and these items don't necessarily relate to cash flows.

The existence of credit transactions, accrued expenses and prepaid expenses means that items listed as revenue earned or expenses incurred are different from the actual cash flows that occurred during the period. Therefore, when a cash flow statement is prepared, the only relevant information regarding operating activities is the actual cash inflows and outflows that resulted from such revenue and expense items.

Cash flows from operating activities will include both the collection and payment of the Goods and Services Tax. The GST collected on cash sales is thus reported as an operating cash flow. Similarly, the GST paid on cash purchases and other payments is reported under the heading of 'Operating cash flows'. If a business owner settles a GST liability owing from a previous month, or receives a GST refund from the ATO, these items should also be reported in the operating activities section of the report.

CASH FLOWS FROM INVESTING ACTIVITIES

cash flows from investing activities
cash flows that relate to the sale or purchase of non-current assets

Cash flows from investing activities are the cash flows that result from the purchase or sale of non current assets. Investing activities would include the purchase or sale of assets such as land and buildings, factory equipment and vehicles. It may also include long term investments that don't qualify under the definition of cash or cash equivalents.

Once again, the important point to keep in mind is that actual cash flows must be reported. When non current assets are disposed of, book profits or losses aren't relevant. However, the value realised in cash upon disposal represents a cash inflow and is therefore reported. When preparing a cash flow statement for a company, other long term assets such as shares in other companies and debentures are also reported under the category of investing activities.

Buying a non-current asset is considered an investing activity.

CASH FLOWS FROM FINANCING ACTIVITIES

Cash flows from financing activities are cash flows that have occurred as a result of changes in a business's financial structure. When evaluating the financial stability of a business, it's vitally important to consider how it is financed, and the balance between the owner's funds and borrowed funds. A report on changes in financial structure will usually be of great interest to a business's prospective owners and lenders. Financing activities include capital contributions by the owner, the owner's withdrawals of cash, the taking out of loans from external parties, and repayments of such loans.

cash flows from financing activities cash flows that occur as a result of changes in the financial structure of a business

REPORTING AGAINST CASH FLOW CLASSIFICATIONS

The use of these three broad categories operating activities, investing activities and financing activities allows users of the cash flow statement to focus on specific areas within a business. Operating activities mainly focus on cash flows resulting from revenues and expenses, while the other two classifications study the changes in items reported in the balance sheet. Investing activities highlight changes in the area of non current assets, and financing activities look at how such assets were financed.

Table 12.1 summarises the types of cash flows that may be reported under each classification.

TABLE 12.1 Classifications of cash flows

Operating activities	Investing activities	Financing activities
Cash inflows from: • selling goods for cash • cash collected from accounts receivable • commission received • interest received • GST received • GST refunds	Cash inflows from: • proceeds from the sale of non-current assets	Cash inflows from: • capital injections of cash • taking out loans
Cash outflows from: • cash purchases of stock • payments to accounts payable • expenses paid • GST paid • GST settlements	Cash outflows from: • purchase of non-current assets for cash	Cash outflows from: • owner's cash drawings • loan repayments

12.2 CHECK YOUR UNDERSTANDING

WB PAGE 210

1 Describe the three classifications used within a cash flow statement.

2 Using the headings from your answer to Question **1**, classify each of the following items into the three types of cash flows, or as a non-cash item where appropriate:

a cash purchase of furniture
b wages paid
c depreciation of furniture
d cash sale of goods
e loan repayments
f GST collected on cash sales
g loss on sale of vehicle
h proceeds from sale of vehicle
i withdrawals of cash
j cash purchase of inventory
k rent expense paid
l GST paid on purchases.

12.3 DESIGNING AND PREPARING A CASH FLOW STATEMENT

The basic format of the cash flow statement is outlined by the accounting standards. Figure 12.2 demonstrates the format of the report, which is based on the use of the three classifications of cash flows: operating activities, investing activities and financing activities.

A sub total is determined for each of these classifications. These sub totals are used to highlight the net cash inflow or outflow that occurred within each activity during the reporting period. The overall result of such cash flows is then shown in terms of an increase or decrease in cash held over the period. This can be reconciled with the two cash balances as reported in the business's consecutive balance sheets.

FIGURE 12.2 **Cash flow statement: basic format**

KILMORE ACTION SPORTS: CASH FLOW STATEMENT FOR THE YEAR ENDED 31 DECEMBER 2023

	[1] $	$
Cash flows from operating activities		
Cash sales	150 000	
Collections from accounts receivable	45 000	
GST collected	15 000	
Payments to accounts payable	(73 500)	
Rent	(25 000)	
Wages	(35 000)	
GST paid	(2 500)	
Net cash provided by operating activities		[2] 74 000
Cash flows from investing activities		
Sale of shop fittings	1 000	
Purchase of shop fittings	(5 000)	
Net cash used in investing activities		[2] (4 000)
Cash flows from financing activities		
Loan from bank	10 000	
Loan repayments	(5 500)	
Drawings	(29 500)	
Net cash used in financing activities		[2] (25 000)
Net increase (decrease) in cash held		[3] 45 000
Cash held at the beginning of the year		(12 000)
Cash held at the end of the year		[4] 33 000

- **[1]** Cash inflows are shown as positive amounts and cash outflows are shown as negative amounts, indicated by brackets.
- **[2]** A summary (total) is shown for each of the three categories operating, investing and financing cash flows.
- **[3]** The overall increase or decrease in the cash held by the business is calculated by adding up the three sub totals.
- **[4]** The final step is to include the cash held by the business at the start and end of the period.

PREPARING A CASH FLOW STATEMENT

A cash flow statement can be prepared from either a summary of cash transactions or the statement of receipts and payments. Both the journals and the statement of receipts and payments provide a summary of all cash flow transactions for a period. Therefore, it's simply a matter of classifying these cash flows under the headings of operating, investing and financing activities. Consider the statement of receipts and payments shown below.

YURTS R US: STATEMENT OF RECEIPTS AND PAYMENTS FOR THE YEAR ENDED 30 JUNE 2023

	$	$
Cash receipts		
Capital contribution	20 000	
Cash sales	50 000	
Collections from accounts receivable	10 000	
Sale of office equipment	2 000	
GST collected	5 000	87 000
Less: Cash payments		
Payments to accounts payable	30 000	
Advertising	3 000	
Wages	14 000	
Cleaning	3 000	
Drawings	10 000	
Purchase of computer	4 000	
Loan repayments	11 000	
GST paid	4 000	79 000
Excess of receipts over payments		8 000
Bank balance as at 1 July 2022		3 000
Bank balance as at 30 June 2023		11 000

DON'T!
Never include non-cash items in a cash flow statement. Discounts, credit sales and inventory losses should never be part of this statement.

Using the information in the above report, a formal cash flow statement can be prepared as follows:

CASH FLOW STATEMENT FOR THE YEAR ENDED 30 JUNE 2023

	$	$
Cash flows from operating activities		
Cash sales	50 000	
Collections from accounts receivable	10 000	
GST received	5 000	
Payments to accounts payable	(30 000)	
Advertising	(3 000)	
Wages	(14 000)	
Cleaning	(3 000)	
GST paid	(4 000)	
Net cash provided by operating activities		11 000
Cash flows from investing activities		
Sale of office equipment	2 000	

Purchase of computer	(4 000)	
Net cash used in investing activities		(2 000)
Cash flows from financing activities		
Capital contribution	20 000	
Drawings	10 000	
Loan repayments	(11 000)	
Net cash used in financing activities		(1 000)
Net increase (decrease) in cash held		8 000
Cash held at the beginning of the year		3 000
Cash held at the end of the year		11 000

Comparing these two accounting reports shows that a cash flow statement is simply a statement of receipts and payments where all the cash flows have been classified into the three distinct areas of operating, investing and financing.

The cash flow statement has the advantage of providing additional information about a business. For example, management can determine the extent of cash, if any, being generated by operating activities. An owner can see how much cash has been used up in financing the business, or how much cash has been invested into the assets of the business.

The cash flow statement is a valuable addition to the income statement and balance sheet, as it provides information not highlighted in the other general purpose financial reports.

12.3 CHECK YOUR UNDERSTANDING

WB PAGE 211

1. Are all revenue items in an income statement reported in a cash flow statement? Explain your answer fully, using an appropriate example.
2. Are all expense items in an income statement reported in a cash flow statement? Explain your answer fully, using an appropriate example.
3. A cash flow statement may report four different types of cash flows in relation to the GST. Describe the nature of these four different cash flows.
4. Describe the basic format of a cash flow statement, highlighting the key areas within the report.

12.4 CASH FLOWS AND DECISION MAKING

There isn't much point in preparing a cash flow statement if it can't be analysed fully and its results taken into account when making decisions about the future of a business.

As with other accounting reports, a cash flow statement can be compared with previous results. Such comparisons allow users of the report to detect changes in the various activities and identify trends. For example, management should investigate any significant change in the cash provided by operating activities. Changes in financial structure can be highlighted over consecutive reporting periods. Similarly, if a business is expanding over several years, the additional investment in non current assets will be reflected in the cash flow statements prepared each period.

In general, the cash flow statement provides management with information that demonstrates the effects of its decision making on cash resources. For this reason, cash flow statements for consecutive reporting periods are often prepared within the one report. This allows for easy comparison and highlights changes that have occurred within the business over time.

The following cash flow statements shows how reporting periods can be compared.

FORWARD FASHIONS: CASH FLOW STATEMENT FOR THE YEAR ENDED 31 DECEMBER

	2022		2023	
	$	$	$	$
Cash flows from operating activities				
Cash sales	200000		240000	
GST collected	20000		24000	
Cash purchases of inventory	(100000)		(120000)	
GST paid	(14000)		(13000)	
Net cash provided by operating activities		106000		131000
Cash flows from investing activities				
Sale of non-current assets	6000			
Purchase of non-current assets	(40000)		(10000)	
Net cash used in investing activities		(34000)		(10000)
Cash flows from financing activities				
Loan repayments	(22000)		(28 000)	
Proprietor's drawings	(40000)		(50000)	
Net cash used in financing activities		(62000)		(78000)
Net increase (decrease) in cash held		10000		43000
Cash held at the beginning of the year		3000		13000
Cash held at the end of the year		13000		56000

These cash flow statements provide a quick comparison of the changes in this business over a two year period. The business increased its cash held from $3 000 at the beginning of 2022 to $56 000 at the end of 2023, a very pleasing result!

The report can be used to explain how this improvement happened.

- Operating activities have provided an additional $25 000 of cash inflows. This is a favourable result, and the causes of such improvement should be investigated and noted for the future.
- Management has continued the expansion in its non current assets. Having committed $40 000 to non current assets in 2022, it allocated a further $10 000 to investing activities in 2023.
- In the area of financing, the owner has increased the cash outflows for personal drawings, but reduced the outflows for loan repayments.

Key changes such as these provide management with a range of information not provided by its income statements or balance sheets.

The cash flow statement gives an additional insight into the workings of the business and should be an integral part of an overall cash management strategy.

12.4 CHECK YOUR UNDERSTANDING

WB PAGE 212

1 Explain why cash flow statements are often prepared for consecutive reporting periods within the one report.

2 Outline the link between preparing a cash flow statement and management decision making.

3 A business owner bought a new computer for cash for $3630, including GST. Show how to report this transaction in a cash flow statement by completing the following table.

Item	Operating/investing/financing	Inflow or outflow	$

4 A trading business sold inventory for cash for $5000, plus GST. The goods sold had a cost price of $3500. On the same day the owner withdrew $1000 in cash and inventory that had a cost price of $600. Complete the following table to show how to report these events in a cash flow statement.

Item	Operating/investing/financing	Inflow or outflow	$

12 CHAPTER REVIEW

KEY CONTENT

- **[12.1]** A cash flow statement provides information on the movement of cash in and out of a business during the reporting period. 'Cash' includes all cash on hand and any other cash equivalents (liquid short term assets) held by a business.
- **[12.2]** Cash flows are reported under three main classifications: Operating activities, investing activities and financing activities.
- **[12.3]** A standard cash flow statement reports against the three classifications, with a sub total provided for each.
- **[12.3]** A cash flow statement can be prepared from either a summary of cash transactions or a statement of receipts and payments.
- **[12.4]** Cash flow statements can be analysed by management, who take the results into account when making decisions about the future of the business.

CHAPTER 12 EXERCISES

1 Cash flows from operating activities

WB PAGE 213

The owner of Star of Istanbul provides the following information about his Islamic clothing business.

Receipts	$	Payments	$
Cash sales	60000	Cash purchases of inventory	32000
Collections – accounts receivable	20000	Wages	19000
Loan – Easy Bank	30000	Advertising	5000
GST collected	6000	Drawings	16000
		GST paid	3700

a Using the relevant information from above, calculate the net cash provided by operating activities for the year ended 28 February 2023.

b Explain your treatment of drawings in your answer to part **a**.

2 Cash flows from operating activities

WB PAGE 213

Alan Bennetts extracts the following information from the books of his business, which trades under the name of Fishing World.

	$
Cash sales	60000
Cash paid to accounts payable	25000
Cost of sales	27000
Wages	12000
Advertising	3000
Cash drawings	5000
GST received from customers	6000
GST paid to suppliers	2800

a Using the relevant information from that listed above, calculate the net cash provided by operating activities for the year ended 31 March 2023.

b Explain your treatment of 'cost of sales' in your answer to part a.

c Explain why management should determine the net cash generated by operating activities in addition to calculating the net profit for a period.

3 Cash flows from investing activities

WB PAGE 214

The owner of McNamara's Music provides the following information about her business for the year ended 31 May 2023.

Receipts	$	Payments	$
Cash sales	62000	Cash purchases of inventory	29800
Sale of van	5000	Purchase of computer	3800
Sale of furniture	2000	Purchase of fittings	4900
GST collected	6200	Drawings	9700
		GST paid	3870

a Using the relevant information from above, calculate the net cash provided (or used) by investing activities for the year ended 31 May 2023.

b Justify your treatment of the purchases of inventory in your answer to part a.

4 Cash flows from investing activities

WB PAGE 214

The following transactions occurred in the business of Lancefield Tractor Parts during the year ended 31 March 2023.

	$
Cash collected from accounts receivable	32400
Purchase of office equipment for cash	6700
Profit on sale of computer	200
Cash purchase of fittings	5400
Loss on sale of office furniture	300
Proceeds from sale of non-current assets	2000
GST paid during the period	1550
Purchase of furniture for cash	3400
Cash drawings by the owner	5600

Extract the relevant information from that listed above and determine the net cash flow provided (or used) by investing activities.

5 Cash flows from financing activities

WB PAGE 214

The following cash flows relate to the business of Wrestle Maniac Ring Gear.

	$
Profit earned for the year	40000
Drawings made during the year	10000
Cash sales for the year	36700
Loan repayments made during the year	13000
Credit sales for the year	34300

a Prepare a schedule to determine the net cash provided (or used) by financing activities.

b Make a brief comment on the financing activities of Wrestle Maniac Ring Gear in light of your answer to part a.

6 Cash flows: full statement

WB PAGE 215 SPREADSHEET

The following is a summary of the cash transactions for March 2023 for the business of Drummond Street Drapery.

Receipts	
Cash sales: selling price	$ 5 030
Cash sales: cost price	$ 2 585
Receipts from accounts receivable	$ 5 280
Capital contribution	$ 8 000
Loan – NAB	$ 9 000
Disposal of computer	$ 1 600
GST collected	$ 503
Total cash banked	$29 413
Payments	
Payments to accounts payable	$ 2 300
Cash purchases of inventory	$ 2 200
Advertising	$ 400
Purchase of equipment	$ 4 500
Wages	$ 2 000
Drawings	$ 1 350
Insurance	$ 370
Loan repayment	$ 200
GST paid	$ 747
Total cash paid	$14 067

Additional information

The Cash at Bank account balance as at 1 March 2023 was $2510.

a Prepare a cash flow statement for Drummond Street Drapery for the month ended 31 March 2023.

b The cash flow statement can provide information not revealed by other accounting reports. What additional information is available to the owner of Drummond Street Drapery? Refer to details from part **a** in your answer.

7 Cash flows: full statement

WB PAGE 216 SPREADSHEET

The owner of Dylan's Disposal Store, which doesn't sell on credit, provides the following summary for his business for June 2023.

Cost of sales	$ 2 685 (*Note:* all inventory sold at 100% mark-up)
Receipts from accounts receivable	$ 880 (*Note:* includes discounts of $30)
Loan – EZ Finance	$16 000
GST receipts	$ 568
Commission revenue	$ 310
Capital injection	$ 5 000
Sale of van	$ 5 600
Purchase of shop fittings	$ 5 600
Cash purchases of inventory	$ 1 850
Wages	$ 2 540
GST settlement	$ 2 100
Payments to accounts payable	$ 1 650 (*Note:* includes discounts of $50)

Drawings by the owner	$ 1 720 (*Note:* includes drawings of inventory that cost the business $520)
Loan repayment	$ 1 760
Purchase of computer	$ 2 500
Advertising	$ 1 900
GST payments	$ 1 345
Cleaning expenses	$ 1 600

Additional information

On 1 June 2023 the business had an overdraft of $1340.

a Prepare a cash flow statement for the month of June 2023, showing clearly the cash flows from operating, investing and financing activities.

b Comment on:

i the business's overall cash position

ii the level of cash generated by operating activities.

SPREADSHEET

8 Cash flows: full statement

WB PAGE 218

The following report is submitted by Glenys Dellamarta, the owner of Pulsar Jetskis.

STATEMENT OF RECEIPTS AND PAYMENTS FOR THE YEAR ENDED 31 MARCH 2023

	$	$
Cash receipts		
Cash sales	90 000	
Collections from accounts receivable	32 000	
Sale of delivery truck	5 500	
Capital	5 000	
Commission revenue	1 000	
Loan – K.S. Finance	13 000	
GST collected	9 100	155 600
Less: Cash payments		
Cash purchases of inventory	54 040	
Interest	1 660	
Advertising	6 450	
Cartage inward	1 150	
Purchase of office equipment	12 300	
Wages – sales staff	32 060	
Loan repayments	4 700	
Drawings	17 900	
Purchase of delivery truck	23 000	
GST paid	9 694	162 954
Excess (deficit) of receipts over payments		(7 354)
Bank balance as at 1 April 2022		9 245
Bank balance as at 31 March 2023		$1 891

a Prepare a cash flow statement for Pulsar Jetskis for the year ended 31 March 2023.

b The owner is concerned about the cash flows of her business. Comment on the results revealed by your cash flow statement.

9 Cash flows: full statement

WB PAGE 219 SPREADSHEET

Scott Woodman, the owner of Specialist Computers, provided the following information in relation to his business.

STATEMENT OF RECEIPTS AND PAYMENTS FOR THE YEAR ENDED 30 JUNE 2023

	$	$
Cash receipts		
Additional capital	12 000	
Proceeds from sale of office furniture	3 500	
Interest on government bonds	3 200	
Sales	65 200	
Accounts receivable	53 950	
NAB – loan	22 600	
GST received	6 520	166 970
Less: Cash payments		
Proprietor's drawings	23 400	
Cartage outward	1 150	
Accounts payable	62 330	
Interest expense	2 360	
Office salaries	15 600	
Cash purchases of inventory	8 500	
Repayments to NAB	4 650	
Advertising	2 100	
Shop wages	18 200	
Insurance	1 350	
Purchase of shop fittings	12 600	
GST paid	2 570	154 810
Excess (deficit) of receipts over payments		12 160
Bank balance as at 1 July 2022		4 860
Bank balance as at 30 June 2023		17 020

Additional information

Stock loss for the year was $2100.

a Prepare a cash flow statement for Specialist Computers for the year ended 30 June 2023.

b Comment briefly on what is shown by your cash flow statement.

10 Consecutive cash flow statements

WB PAGE 220

The owner of Lightbox Lasers prepares the following cash flow statements.

LIGHTBOX LASERS: CASH FLOW STATEMENTS FOR THE YEARS ENDED 31 DECEMBER

	2022		2023	
	$	$	$	$
Cash flows from operating activities				
Cash sales	140000		150000	
GST received	14 000		15 000	
Cash purchases	(60 000)		(50 000)	
Cash expense	(40 000)		(40 000)	
GST paid	(11 500)		(9 800)	
Net cash provided by operating activities		42 500		65 200
Cash flows from investing activities				
Proceeds from sale of non-current assets	8 000		–	
Purchase of non-current assets	(15 000)		(8 000)	
Net cash used in investing activities		(7 000)		(8 000)
Cash flows from financing activities				
Repayments of loan	(10 000)		(10 000)	
Proprietor withdrawals	(22 000)		(22 000)	
Net cash used in financing activities		(32 000)		(32 000)
Net increase (decrease) in cash held		3 500		25 200
Cash held at the beginning of the year		7 000		10 500
Cash held at the end of the year		10 500		35 700

Comment on the changes that have occurred in the business of Lightbox Lasers as revealed in the above cash flow statements. Your comments should consider the changes in the cash flows from operating, investing and financing activities.

CASE STUDY

WB PAGE 221 SPREADSHEET

Kerry Norton, the owner of Norton's Bookshop, provides the following information for your consideration.

BALANCE SHEET AS AT 30 APRIL 2023

Assets	$	Liabilities	$
Cash at bank	3240	Accounts payable	540
Inventory	45400		
Display fittings	15260	**Owner's equity**	
GST clearing	100	Capital	63460
	64000		64000

The following is a summary of the key transactions for Norton's Bookshop in May 2023.

Summary of credit purchases		**Summary of credit sales**	
Inventory bought on credit	$1 840	Inventory sold on credit	$2 290
GST charged by suppliers	$ 184	GST charged to clients	$ 229
Total of invoices received	$2 024	Total of invoices issued	$2 519
		Cost of sales	$1 050
Summary of cash receipts		**Summary of cash payments**	
Receipts from accounts receivable	$ 1 725	Payments to accounts payable	$ 1 146
Cash sales	$ 1 460	Cash purchases of inventory	$ 1 200
Capital contribution	$ 8 000	Drawings	$ 1 150
Bank loan	$ 5 000	Wages	$ 1 840
GST received on sales	$ 146	Computer system	$ 8 000
Total cash received	$16 331	Loan repayment	$ 550
		GST paid	$ 920
		Total cash paid	$14 806
Other information		**Other information**	
Cost of sales	$ 730	Discounts from accounts payable	$ 45
Discounts to accounts receivable	$ 95		

In addition to the above information, the owner reports that a inventory loss of $190 was identified on 31 May.

- **a** Prepare general ledger accounts for the month of May 2023. (Use one Accounts receivable account for all credit customers and one Accounts payable account for suppliers providing credit to Norton.)
- **b** Balance all accounts and prepare a trial balance as at 31 May 2023.
- **c** PrePrepare the following general purpose accounting reports:
  - **i** income statement for May 2023
  - **ii** cash flow statement for May 2023
  - **iii** balance sheet as at 31 May 2023.

CHAPTER CHECKLIST

Now that you have finished Chapter 12, double check your progress.
Are you ready for your Unit 3 assessment?

I have …

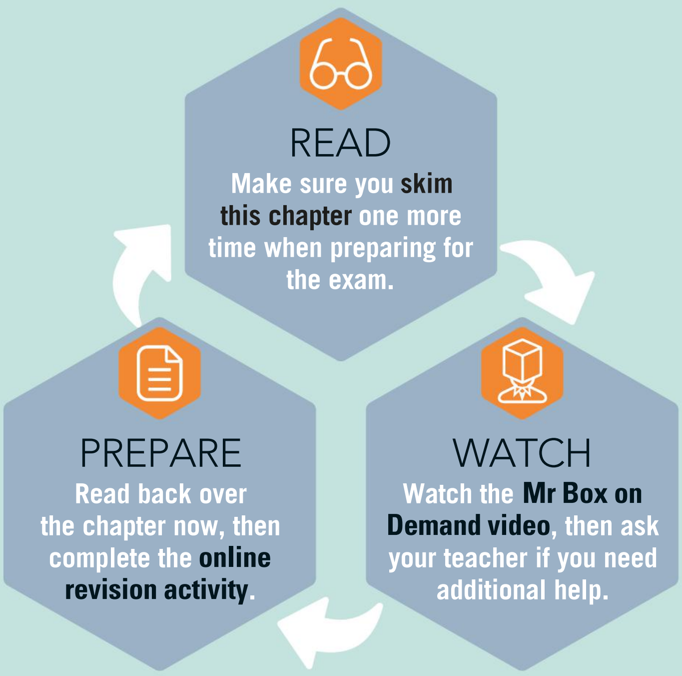
- completed all 'Check Your Understanding' questions
- completed all exercises
- completed the end of chapter activities
- handed in my workbook for marking.

I understand …

- characteristics and use of classified accounting reports: Cash Flow Statement
- the distinction between cash and profit
- the effect of transactions on the accounting reports.

I can …

- identify and record financial data manually in the General Journal and the General Ledger and manually prepare accounting reports
- use ICT, including spreadsheets, to record transactions in the General Journal and the General Ledger and prepare accounting reports
- distinguish between cash and profit
- analyse the effect of financial transactions on the accounting reports.



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13 MANAGEMENT AND ACCOUNTING REPORTS

The purpose of accounting reports such as the balance sheet and cash flow statement is to provide financial data to users. Management uses these reports to make financial decisions and to run their business.

In this chapter you will learn about three areas of management decision making, and explore how accounting reports are used to manage and control business activities.

LEARNING OBJECTIVES

By the end of this chapter, you will be able to:

- explain the importance of managing accounts receivable, accounts payable and inventory **[13.1–13.6]**
- describe some basic control mechanisms for controlling accounts receivable, accounts payable and inventory **[13.1, 13.3 & 13.5]**
- calculate an inventory turnover rate (in days) **[13.2]**
- prepare an age analysis of accounts receivable **[13.3]**
- calculate an accounts receivable turnover rate (in days) **[13.4]**
- determine the length of the cash cycle for a trading business **[13.5]**
- calculate an accounts payable turnover rate (in days) **[13.6]**
- suggest ways to improve a business's performance in relation to controlling its accounts receivable, accounts payable and inventory **[13.1–13.6]**.

UNIT 3 – PROGRESS 1 – 2 – 3 – 4 – 5 – 6 – 7 – 8 – 9 – 10 – 11 – 12 – 13

13.1 Controlling inventory

13.2 Evaluating inventory turnover

13.3 Controlling accounts receivable

13.4 Evaluating accounts receivable turnover

13.5 Evaluating the cash cycle

13.6 Evaluating accounts payable turnover

Chapter review and exercises

13.1 CONTROLLING INVENTORY

One of the most important parts of managing a trading business is controlling inventory. The buying and selling of inventory is the lifeblood of a trading business. Management's decisions about inventory often determine the success or failure of a trading business and these decisions don't go away after a period of time.

Questions managers face on a daily basis include:

- What inventory should we buy?
- How many of each item?
- What size range (e.g. for a clothing business)?
- What colour range?
- Which brand names should be part of our inventory?

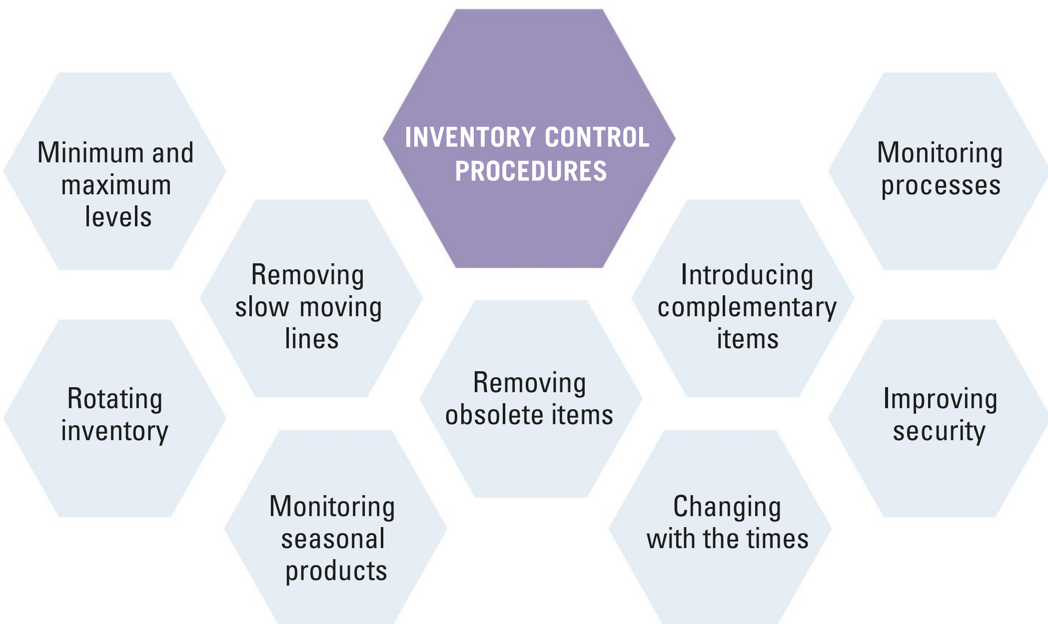
In many small businesses, inventory is the most valuable asset reported in the balance sheet (especially when the business rents its premises, instead of owning land and buildings). It's therefore a key investment for a business owner and one that demands a lot of attention throughout a reporting period.

Under the perpetual inventory system, the goods purchased for resale are represented in the general ledger by the Inventory account. As you've already seen, the Inventory account has a key role in helping management control the business's inventory. The Inventory account is represented by a system of numerous inventory cards. These two types of records should be reconciled on a regular basis.

INVENTORY CONTROL PROCEDURES

In order to control a business's inventory, there are many more procedures that management can adopt, as summarised in Figure 13.1.

FIGURE 13.1 Inventory control procedures



Setting minimum and maximum levels of inventory

Management should consider every type of inventory separately, decide an ideal quantity for each line and set minimum and maximum levels. A business that carries too little inventory is likely to miss out on potential sales. A business that carries too much inventory may suffer from ‘dead inventory’ goods that it can no longer sell. This may occur because of changes in fashion or in season, or through technological change. Deciding what is too little and too much inventory is often difficult, and is a matter of personal judgment.

In a perfect situation, the minimum quantity should be just enough to satisfy sales until a new order is delivered. Many small business owners try to follow the principle of **just in time ordering**. With this system of ordering, replacement orders of inventory arrive just as the last few numbers of the current inventory are used up. Of course, this doesn’t always happen in practice, as customers aren’t always predictable in their behaviour.

just in time ordering purchasing inventory so that the new order of goods arrives just before the business runs out of inventory

Physically rotating inventory on hand

When a new delivery of inventory arrives at a store, it shouldn’t simply be stacked on top of existing inventory. The older units on hand should be placed on prominent display, so that are sold first, with the new units placed out of sight or reach.

This is particularly important for perishable items. Many items food, batteries, medicines carry use by dates, and such items are difficult to sell if these dates have almost expired. Other types of inventory should also be rotated, because the longer an item sits in a shop or on a shelf the more likely it is to become dirty, dusty or damaged. Inventory affected like this is referred to as ‘shop soiled’. It’s difficult to sell shop soiled inventory, so management should always look after the business’s inventory and present it in the best possible way. Rotating inventory is one way of doing this.

DON’T!
Do not ever suggest that FIFO makes sure that your oldest inventory is sold first. This is simply not true!

Note: the rotation of inventory is based on the physical movement of goods, and is different from the assumption of first in, first out (FIFO) inventory valuation. Even when inventory is regularly rotated, there is still a possibility that customers will select an item from the bottom of a stack or the back of a shelf. For example, many customers will take milk from the back of the fridge, even if it means moving a few cartons first!

Remember, FIFO is an *assumed* inventory flow. Although management might hope that inventory moves on a first in, first out basis, this probably won’t be what actually happens on the shop floor.

Rotating inventory helps to minimise shop-soiled items that are harder to sell.

Inventory cards must be regularly reviewed, and slow moving lines identified and dealt with. Perhaps a clearance sale is required; management may decide not to sell a particular line anymore, or look for a replacement product that will sell at a faster rate.

The worst thing management can do is to do nothing. Slow moving inventory has the potential to ruin a trading business. Once goods have been paid for, they need to be sold to generate a cash inflow. Inventory is the key to success in a trading business; if it's not selling fast enough, it may also be the cause of business failure.

The definition of 'slow moving' inventory depends on the nature of the goods. Some inventory may be slow moving compared to other goods on sale, but the slower selling items are highly profitable. For example, a department store sells both clothing and furniture, and inventory in the clothing area sells at a much faster rate than inventory in the furniture department. Management tolerates this because furniture sales, although slower than clothing sales, are much more profitable. Therefore, when identifying slow moving lines, always consider the nature of the inventory.

Monitoring seasonal products

If a trading business has products that are subject to seasonal demand, management must pay special attention to these items. Towards the end of the 'season', such inventory must be run down to a very low level or cleared out completely. Otherwise, the business is left with items that cannot be sold for another year.

For example, in Victoria there is a huge industry in sporting apparel, particularly football clothing. However, there is little point in purchasing lots of football jumpers in October. Most sports stores have clearance sales in August or September, so that all football inventory is sold before the end of the season. This ensures that there is little or no dead inventory sitting in the shop from October to February each year. Once the summer season has passed, management may stock a fresh range of merchandise in anticipation of the new winter season.

Monitoring technological obsolescence

Some trading businesses are affected by rapid technological change, such as those selling televisions, computers and mobile phones. It may be unwise to buy a particular model in bulk just because a supplier is offering a good price. If customers aren't going to buy the product because there is a new and improved model on the market, the business may again be left with dead inventory.

Therefore, management in such industries must be careful not to over commit to inventory purchases. They must always be aware of the latest trends in product development in order to maximise sales from the inventory held.

Introducing complementary products

One way of improving the turnover of inventory is to have a range of complementary products available for customers. An increased range of inventory may attract additional customers and improve the chances of selling the established lines of inventory.

Management should consider what products it could sell to complement the products already available. For example, a menswear store will usually sell belts and ties as well as shirts and trousers. A mobile phone store will also sell battery packs, phone cases and covers, headphones and so on.

Changing with the times

Regardless of the nature of the inventory a business sells, management must always be prepared to change, because markets, competitors and customers all change. A business that does the same thing year after year will often fail.

Managing inventory is a dynamic process. A top seller one year may become a slow mover in another year. Management must monitor all its inventory lines and be ready to react to changing demand.

The amount and speed of change will depend on the nature of the business. However, those business owners who refuse to change will often find themselves losing their place in the market, and may even be forced out of business.

Monitoring selling prices

One factor that management should never underestimate is the setting of selling prices. Some markets are more reactive to changes in selling prices than others, but all businesses need to constantly review their selling prices to ensure that profit margins cover their expenses. Inventory can be sold very quickly if selling prices are slashed, but there's no point in selling thousands of items if the product isn't going to produce a profit.

Cost prices must be also monitored closely, as an increase in costs is a threat to a business's profit margin. An increase in cost prices will usually require an increase in selling prices. However, a business facing intense competition may be limited in how much it can raise its selling prices before this has a significant impact on turnover.

Ensuring adequate security

An important part of managing the inventory of a business is security. After cash, inventory is the asset most likely to be targeted for theft. Inventory may be stolen by customers if adequate security isn't in place.

Inventory losses don't occur only from shoplifting. There are numerous recorded cases of fraud and/or theft in business situations that involve staff. Inventory control procedures should tackle potential problem areas.

The manager of a small business should consider what security is required for their particular store and respond on that basis.

ONGOING MANAGEMENT OF INVENTORY

Managing inventory is an ongoing responsibility. Inventory must be constantly reviewed in terms of its security, its turnover and its general performance. If a trading business fails to manage its inventory effectively, its overall performance will suffer and so too will the returns to the owner in terms of profit. As the success of a trading business is based on the buying and selling of goods, the management and control of inventory is crucial.

13.1 CHECK YOUR UNDERSTANDING

WB PAGE 230

1. Explain why a trading business owner must constantly monitor the business's inventory.
2. Describe the role played by the setting of minimum and maximum levels of inventory.
3. Explain why all forms of inventory should be rotated when new inventory arrives in a store.
4. Identify five different security measures a trading business may have in place to protect inventory.

13.2 EVALUATING INVENTORY TURNOVER

It's important that inventory is turned into sales, and therefore into cash, within a reasonable time. This allows a trading business to function on a day to day basis. Inventory can be paid for, expenses can be met and, hopefully, a profit can be earned. But how long should a business take to turn its inventory into sales? What is an acceptable period of time for a trading business to sell all its inventory?

There are no simple answers to these questions. All businesses are different, and different industries will have different factors to take into account. However, a good starting point is the **inventory turnover** rate, which can be used to evaluate the success or otherwise of management's investment in its inventory.

inventory turnover
a financial indicator that determines how quickly a business can turn its inventory into sales

$$\text{Inventory turnover} = \frac{\text{Average inventory x 365}}{\text{Cost of goods sold}}$$

This ratio compares the level of inventory held by a business during a period to the sales made in the period, at cost price.

Consider the following example, based on end of year data for three consecutive periods for Blackrazor Skate Shop.

	2021	2022	2023
	$	$	$
Inventory on hand	55 000	57 000	59 000
Cost of goods sold		240 000	274 000

The first step is to determine the average level of inventory held by the business. Using an average figure helps prevent the rate from being distorted by any significant increase or decrease in inventory levels during a particular reporting period.

- At the end of 2021 the business had inventory valued at $55 000, and this grew to $57 000 by the end of 2022. Over 2022, the average inventory is $55 000 + $57 000 / 2 = $56 000.
- Similarly, the average inventory level for 2023 is $57 000 + $59 000 / 2 = $58 000.

Once the average inventory figures for both periods are known, the inventory turnover can then be calculated.

$$\text{For the year 2022: } \frac{\$56\,000 \text{ x } 365}{\$240\,000} = \frac{20\,440\,000}{240\,000} = 85.16 \text{ or } 85 \text{ days}$$

$$\text{For the year 2023: } \frac{\$58\,000 \text{ x } 365}{\$274\,000} = \frac{21\,170\,000}{274\,000} = 77.26 \text{ or } 77 \text{ days}$$

Note: if average inventory figures are unavailable, inventory turnover may be calculated using data for inventory at the end of the period.

The ratios calculated for Blackrazor Skate Shop indicate that in 2022, this business turned its inventory into sales every 85 days. In the following reporting period (2023) the inventory turnover was faster, taking only 77 days to turn its inventory into sales. This means that the inventory has been moving out of the business at a faster rate in 2023 than in 2022. It also means that the likelihood of having idle inventory in 2023 is lower than it was in 2022.

These results indicate that management has been more efficient in controlling its inventory. Although this could be the result of a variety of decisions made by management, it's generally viewed as a positive result.

EXAMINING TURNOVER

How do we know if inventory turnover is favourable? There are three ways in which inventory turnover is commonly evaluated.

- **Comparison with inventory turnover in previous reporting periods.** This is an ideal starting point, as it gives management a historical perspective and allows comparisons to be made easily with the current period.
- **Comparison with expectations of management.** With Blackrazor, an improvement was noted because inventory turnover was faster in 2023. However, if management had set a target of 70 days in 2023, the turnover rate although faster than that achieved in 2022 wouldn't have met expectations. Therefore, both the change in the turnover rate and management's goals should be considered when evaluating inventory turnover.
- **Consideration of the type of inventory.** This is possibly the most important factor to consider when deciding if a particular turnover rate is good or not. A bakery will have a much higher rate of inventory turnover than a used car yard, and a milk bar has a much higher rate of turnover than a hardware store. There's no such thing as an ideal inventory turnover rate; it's highly dependent on the type of inventory being sold.

EXAM SUCCESS
When making a comment about inventory turnover, always state if it is faster or slower. Do not state that it has increased or decreased.

Having determined an acceptable rate of turnover, management should try to maintain or improve it to ensure that their investment in inventory is producing revenue at a satisfactory rate.

When examining inventory turnover, bear in mind that the rate determined is an *average* for a period. Many businesses sell a range of inventory, not just one type of product. Some of these items may turn over quickly, while other products may experience a much slower turnover rate.

For example, a typical supermarket sells milk, fresh bread, pasta sauces, mineral turpentine and mouse traps (among other items).

- The fresh milk and bread sections need to be sold out on a daily basis. These two areas each have a turnover rate of one day.
- The inventory of pasta sauces takes several days to sell out.
- Mineral turpentine takes two weeks to clear the shelves.
- Mouse traps may take a month to sell out.

When inventory turnover is determined for this supermarket, it may be as low as 8 10 days, which is the average turnover rate based on its investment in inventory. This average reflects the great range of products that the business sells, and so management needs to be careful when interpreting results.

A typical supermarket needs to sell out its milk section in one day.

MANAGING TURNOVER RATE

Every business is unique, which means that comparisons with turnover rates achieved in a business's previous reporting periods are more relevant than comparisons with rates in other businesses. Differences between businesses may render comparisons of turnover rates meaningless.

EXAM SUCCESS
If accounts payable turnover increases, you may be asked to state one positive and one negative in relation to this change. Revise answers for both possibilities.

Factors that can influence the turnover rates of different businesses within an industry include:

- the range of products being sold
- the length of time a business has been operating
- the size of a business
- competition in the local area.

If management detects a problem with its inventory turnover, it should act to improve the situation and shorten the time taken to turn inventory into sales. Some possible tactics are:

- reducing the selling price of slow moving items
- relocating inventory within the store to highlight particular goods
- running special promotions of targeted inventory lines
- combining items to promote particular products (e.g. ice cream and drink combos).

To succeed in managing and controlling inventory, a business must also continuously review the performance of all items being sold. Checking movements of inventory through a regular review of inventory cards should provide management with enough information to make decisions that allow it not only to control inventory, but to improve performance where necessary.

13.2 CHECK YOUR UNDERSTANDING

WB PAGE 231

1 Explain what 'inventory turnover' means.
2 'All trading businesses should aim for an inventory turnover of 30 days or less.' Do you agree with this statement? Justify your answer.
3 A trading business increased its cost of goods sold from $80 000 in 2022 to $88 000 in 2023. The owner of the business claims that this indicates an increase in inventory turnover of 10%. Is this necessarily correct? Explain your answer.

13.3 CONTROLLING ACCOUNTS RECEIVABLE

Once management has addressed the issue of controlling and turning over its inventory, it needs to consider how it manages sales. If goods are always sold for cash, management can focus solely on the turnover of inventory, but a business that makes credit sales must evaluate how it manages its accounts receivable.

Selling on credit may increase inventory turnover, as new clients are attracted by the credit facility, but there's little benefit in providing credit if the business's accounts receivable cannot be controlled and kept within certain limits. Ultimately, accounts receivable aren't valuable assets if the business can't turn them into cash at some point.

GRANTING CREDIT TO CUSTOMERS

All credit sales have an element of risk, with the ultimate one being non payment. Before granting credit to a customer, management should perform a credit check to determine if the potential debtor is an acceptable risk.

In larger businesses, a credit check may be extensive, including items such as the customer's:

- banking history
- loans and/or credit card history
- references from other businesses
- references from financial institutions
- cash forecasts and/or budgets
- income statements
- balance sheets.

A credit check helps determine whether a customer is an acceptable risk.

Smaller businesses often use agencies that conduct credit checks on behalf of business owners. They charge a fee for their services, but the fee is small compared with the potential cost of selling on credit to a customer with a poor credit history.

It's unusual in the small business sector to ask for a full set of accounting reports from a potential customer. However, it's common to ask for references from other businesses that have provided credit in the past. If a potential client cannot furnish such references, a small business owner may insist on cash sales until a relationship is established.

Many small businesses now use EFTPOS rather than offering credit to customers. Sales made via debit or credit cards are virtually cash sales to a business owner, as they don't take the risk of non collection. Instead, banks provide credit to their customers when a credit card is used in a business situation; this means the bank, rather than the business owner, has the problem of following up with a slow payer or a non payer in the future.

MANAGING CREDIT CUSTOMERS

Once a business has an established list of credit customers (accounts receivable), it must monitor them to make sure they pay on time. If it grants credit terms of 30 days to customers, for example, it's reasonable for the business owner to expect to receive cash about a month after sale. If this doesn't occur, the owner should take action.

If using a computerised accounting system, it's easy to keep track of accounts receivable; programs issue reminders when accounts become overdue. In a manual system, managers have to be more vigilant to ensure that overdue accounts aren't overlooked.

If a business sells on credit, management may adopt a range of tactics to get payment, such as:

- offering discounts for prompt payment
- sending reminder emails to accounts receivable
- reminding accounts receivable via the telephone, so as to make personal contact
- sending regular statements, with stamps or stickers if accounts are overdue
- threatening not to provide credit in the future
- threatening the customer with legal action
- employing a debt collector
- taking legal action to recover the debt.

This list includes a wide range of tactics, from the relatively mild (sending an email) to the extreme (taking legal action).

DON'T!
If asked how to improve accounts receivable turnover, always check if the business offers discounts. If they do, don't suggest that they introduce discounts for prompt payment. This would be assessed as an incorrect response..

Some accounts receivable may take offence at being chased for money. While a business owner has a legal right to pursue slow payers or non payers, it should be done tactfully, or the business owner may lose a good customer forever. Some accounts receivable may be slow payers, but big or reliable clients; the value of future sales could easily outweigh the value of one delayed payment.

Small business owners need to know their credit customers well, and how to encourage them to pay overdue accounts without undue embarrassment. Some slow payers will always wait for an overdue account reminder; others customers will always pay as soon as they receive an invoice. Knowing the business's accounts receivable is always a challenge, but it's vital when chasing up overdue accounts.

CONDUCTING AN AGE ANALYSIS

To gain a greater insight into a business's accounts receivable, it's possible to analyse them in terms of the time that's passed since the credit sales were originally made. An **age analysis of accounts receivable** classifies Accounts Receivable accounts according to the age of their debt. That is, it shows how much time has elapsed since the credit sales were actually made. This is vital information because the older a debt becomes, the more likely it is to turn into a bad debt. Figure 13.2 provides an example of an age analysis of accounts receivable.

age analysis of accounts receivable a table that classifies Accounts Receivable accounts according to the age of their debt

FIGURE 13.2 Age analysis of accounts receivable

Total accounts receivable	0–30 days	31–60 days	61–90 days	91 days and over
$14 000	$10 500	$2 000	$1 000	$500
100%	75.0%	14.3%	7.1%	3.6%

This age analysis shows that the total accounts receivable of the business add up to $14 000. It then breaks this $14 000 into categories, based on how long the debt has been unpaid. Such an analysis enables management to evaluate its collection procedures.

For example, if accounts receivable were allowed 30 days' credit, the majority of the accounts receivable balances should be in the first section of the age analysis table. If this isn't the case, it indicates that the credit terms offered are being abused. This may lead to cash flow problems for the business, as cash may not be coming into the business quickly enough.

Although 75% of the accounts receivable in this example are in the 0 30 days category, a problem may still exist. A total of 10.7% of accounts have gone beyond two months, and 3.6% of total debts outstanding are over the 90 day mark. Such accounts receivable would have been issued with several reminders over the three month period, but their accounts are still not settled. The longer these accounts remain unpaid, the more likely they are to turn into bad debts.

An age analysis of accounts receivable should be prepared on a regular basis (preferably monthly) and compared with previous analyses so that management can see any trends emerging. If the comparison shows that a higher percentage of accounts receivable have moved into the 0 30 days category, this indicates that management has gained better control over its accounts receivable. On the other hand, if management isn't following up effectively, more accounts receivable may be slipping into the lower groups. This indicates a real problem in terms of credit control, and there may be serious consequences if the situation isn't corrected in the near future.

13.3 CHECK YOUR UNDERSTANDING

WB PAGE 232

1 Explain the procedures management should follow before granting credit to customers.
2 If 30 days' credit is offered to accounts receivable, would you expect all debts to be paid within 30 days? Explain why this may not happen.
3 What is an age analysis of accounts receivable? What is its purpose?

13.4 EVALUATING ACCOUNTS RECEIVABLE TURNOVER

accounts receivable turnover
a financial indicator that determines the average time taken by accounts receivable to settle their accounts

In addition to preparing an age analysis, management may choose to calculate the **accounts receivable turnover** to help assess the level of control the business has over its accounts receivable. This compares the average amount owing by accounts receivable over a year with the credit sales made during this period. This figure must also include the 10% GST added to all sales. Therefore, the formula is:

$$\text{Accounts receivable turnover} = \frac{\text{Average accounts receivable} \times 365}{\text{Net credit sales (plus GST)}}$$

Note that this formula only applies to those sales made on credit, as cash sales don't affect accounts receivable.

Consider the following example, based on end of year data for three consecutive reporting periods for Blackrazor Skate Shop.

	2021	2022	2023
	$	$	$
Balance of accounts receivable	8000	10000	7000
Credit sales		80000	100000
GST charged		8 000	10 000

The first step is to determine the average amount owed by accounts receivable to the business.

- At the end of 2021 the accounts receivable of Blackrazor owed $8000, and this increased to $10 000 by the end of 2022. Over the year, the average accounts receivable would be ($8000 + $10 000) / 2 = $9000.
- Similarly, the average accounts receivable for 2023 is ($10 000 + $7000)/2= $8500.

As with inventory turnover, using an average figure helps prevent the rate being distorted.

Having determined average accounts receivable for both periods, the accounts receivable turnover can be calculated.

For the year 2022: $\frac{\$9000 \times 365}{\$88\,000} = \frac{\$3\,285\,000}{\$88\,000}$ = 37.3 or 37 days

For the year 2023: $\frac{\$8\,500 \times 365}{\$110\,000} = \frac{\$3\,102\,500}{\$110\,000}$ = 28.2 or 28 days

Note: if average accounts receivable figures are unavailable, the accounts receivable turnover may be calculated using data for end of period accounts receivable.

The result for Blackrazor Skate Shop are favourable: the credit sales figures have increased over time, while the amount owed by accounts receivable decreased during 2023. It's a positive outcome when a business can sell more on credit while keeping control over its accounts receivable. This indicates that, even with a greater amount of credit sales, the Accounts Receivable accounts are being collected at a fast rate and are under control.

Perhaps the management of Blackrazor tightened its follow up procedures once goods have been sold on credit. Or it may have decided to offer incentives for early payments (such as discounts), which its customers have accepted. Whatever was done, it appears to have improved its performance in terms of controlling its accounts receivable.

COMPARING TURNOVER WITH CREDIT TERMS

The accounts receivable turnover, expressed in days, can be compared with the credit terms granted to accounts receivable at the point of sale.

For Blackrazor Skate Shop, the business's accounts receivable took an average of 37 days to settle their accounts in 2022, but only 28 days in 2023. The reduction in time taken is favourable, because the business is receiving cash at a faster rate. This is particularly important for the business's liquidity: the less time taken to collect debts, the sooner it gains the cash it needs to meet its own obligations.

If a business trades on 30 days' credit, an average collection period of 28 days would usually be seen as acceptable. As 28 days is an average, this means that some accounts receivable took less than 30 days to settle their accounts, while others may have taken much longer before paying their debts.

In 2022, Blackrazor's accounts receivable were taking an average of 37 days. This indicated to management that accounts receivable repayments were taking longer than expected, and they responded in 2023 by improving follow up procedures. The figures appear to support the notion that management took corrective action during 2023 and reduced the time taken to collect debts.

Note the assumption that this business trades on 30 days' credit. If it sold on 60 days' credit, for example, the turnover rates would be seen in a different light, and the results would be viewed as highly satisfactory. This shows the importance of comparing accounts receivable turnover with the *actual* credit terms offered. The control of accounts receivable is dependent on the credit terms on offer, and management's ability to enforce those terms.

MANAGING ACCOUNTS RECEIVABLE TURNOVER

Once the credit terms and the accounts receivable turnover are compared, the ratio should be compared with ratios from previous reporting periods. This allows management to identify any noticeable trends. Management should also set targets for such ratios, and measure turnover results against these predetermined rates.

If accounts receivable turnover has been a problem in the past, management may set a standard of performance that has to be met within a set period. This provides a target for measuring success or failure at the end of the reporting period.

The results of the accounts receivable turnover are mostly dependent on internal factors, and comparisons with other businesses are of little value.

13.4 CHECK YOUR UNDERSTANDING

WB PAGE 233

1 What does accounts receivable turnover evaluate? Explain how it is calculated.

2 Spotswood Sports has accounts receivable turnover of 24 days. It allows its accounts receivable a maximum of 30 days' credit. Comment on the results achieved by this business in relation to its accounts receivable accounts.

3 Describe three different tactics that management may use to try to speed up a business's accounts receivable turnover.

13.5 EVALUATING THE CASH CYCLE

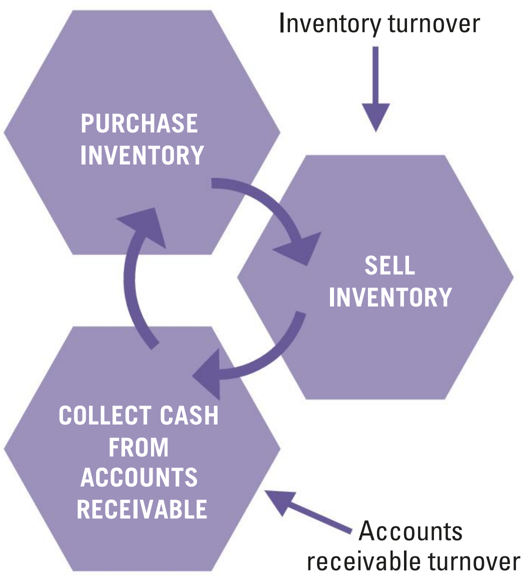
Inventory turnover and accounts receivable turnover play important roles in the success of trading businesses. These two ratios have a close relationship. A trading business is involved in a continuous process of buying goods, turning these goods into sales, and then turning these sales into cash.

cash cycle
the process of turning inventory into sales, and then turning these sales into cash

This whole process is known as the **cash cycle** of business, which is the time a business takes to collect cash from the inventory it bought for resale. The cash cycle is therefore the sum of the inventory turnover and accounts receivable turnover.

Figure 13.3 shows the cash cycle as a flow diagram.

FIGURE 13.3 **The cash cycle of a trading business selling on credit**



Using the ratios calculated for Blackrazor Skate Shop, the business's cash cycle can be determined.

	2022	2023
Inventory turnover (in days)	85	77
+ Accounts receivable turnover (in days)	37	28
= Cash cycle	122	105

Combining the two turnover rates gives management a complete summary of what has happened in the business in terms of these crucial current assets.

For Blackrazor Skate Shop, improvements have been achieved in both turnover rates. These improvements mean that, on average, the cash cycle of the business has improved by 17 days. The business is therefore receiving cash from its investment in inventory 17 days faster than it did in the previous year.

This is very positive, because the cash is available at an earlier date and can therefore be used by management as it sees fit. For example, it may gain discounts because it can settle accounts payable sooner. Interest on the business's overdraft may be reduced because it can decrease or even eliminate the overdraft. It's always an advantage to have the cash cycle happening at a faster rate.

Improving accounts receivable turnover contributes to business success.

INTERPRETING THE CASH CYCLE

The cash cycle is made up of two components, so movements in one component may be offset by opposite movements in the other component. For example, inventory turnover may increase by five days, while accounts receivable turnover decreases by five days. This makes it appear as if the cash cycle hasn't changed, because the overall figure may be consistent from one period to the next.

This means that *both* components of the cash cycle need to be monitored. If one turnover rate improves, it may be time to concentrate on the other so that the business's overall performance still improves over time.

As with all analytical tools, the cash cycle examines relationships between different items, so it can be used to inform management of perceived problems. How management reacts to these problems has a major impact on the success or failure of a business.

Turnover rates are just another source of financial information to be used by owners and managers. Ultimately, these people need to make decisions that lead to changes in the cash cycle that strengthen the business and make it perform better in future periods.

13.5 CHECK YOUR UNDERSTANDING

WB PAGE 234

1. Explain what the term 'cash cycle' means. How is it calculated?
2. What problems may exist in a trading business that experiences a slower cash cycle? Explain your answer fully.
3. 'If a business improves their accounts receivable turnover from 37 days to 29 days, their cash cycle must also improve.' Do you agree? Explain fully.

13.6 EVALUATING ACCOUNTS PAYABLE TURNOVER

A business doesn't need to control accounts payable so much as manage them in a way that helps satisfy its needs.

Accounts payable are a useful source of credit. Many trading businesses purchase their inventory requirements from accounts payable (known as trade credit) for two basic reasons:

1 trade credit gives a business time to sell its inventory and turn it into cash.
2 trade credit is basically interest free finance: a short term credit arrangement that doesn't involve interest (except in a small number of arrangements).

For example, in retail it's common practice to purchase inventory on 30 days' credit. The objective of retailers is then to have a cash cycle fast enough to cope with demands for payment at the end of this 30 day period. This isn't always possible, but the concept of working with accounts payable in line with the business's cash cycle is useful.

The cash cycle flow diagram in Figure 13.3 can be modified to represent this concept.

FIGURE 13.4 **The cash cycle of a trading business buying and selling on credit**

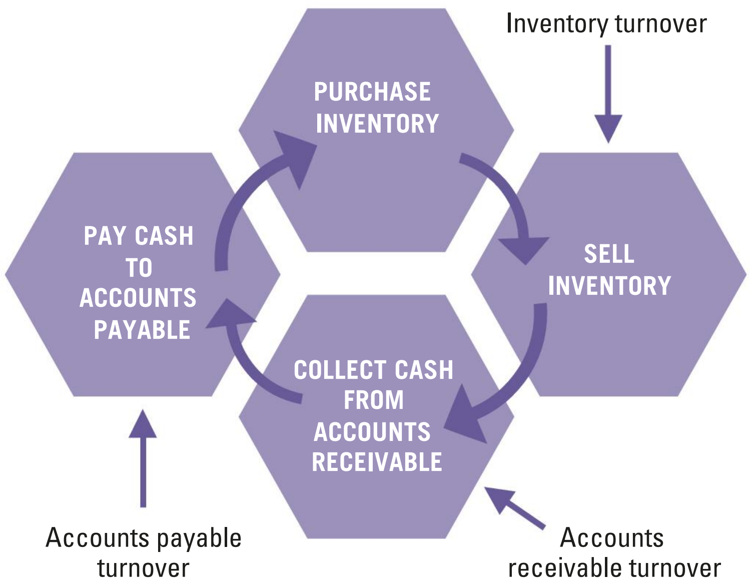


Figure 13.4 represents the ideal situation for a trading business. It shows a cycle of buying goods, selling goods, collecting cash, and then ultimately paying cash to accounts payable at the end of the cycle.

Unfortunately, things don't always happen in this order; the payment of accounts payable can become a balancing act for management. A business owner doesn't set out to upset anyone who provides inventory on credit, but suppliers expect to be paid on time, and it's a dangerous practice to always pay late. The old 'the cheque is in the mail' routine doesn't hold up with many suppliers especially now that cheques are largely a thing of the past. If it's used repeatedly, suppliers may refuse to supply goods on credit to the business in future.

However, when a business owner experiences problems with slow inventory turnover, or has problems with slow paying accounts receivable, payments to accounts payable may be deliberately delayed. If a business is experiencing a severe cash shortage, there may be little choice but to put off accounts payable for a few weeks. At other times a business may have excess cash, allowing it to settle accounts promptly.

Therefore, when evaluating **accounts payable turnover**, keep in mind that other factors within the business may determine when accounts payable are settled.

accounts payable turnover a financial indicator that determines the average time taken by a business to pay its accounts payable

CALCULATING ACCOUNTS PAYABLE TURNOVER

Accounts payable turnover is calculated in a similar fashion to that of the accounts receivable turnover. Instead of credit sales, credit purchases for the period are used, and this figure is compared to the average amount owed to accounts payable.

$$\text{Accounts payable turnover} = \frac{\text{Average accounts payable x 365}}{\text{Net credit purchases (plus GST)}}$$

Note: This ratio only considers purchases made on credit, as cash purchases don't affect accounts payable.

Consider the end of year data for three consecutive reporting periods for Blackrazor Skate Shop.

	2021	2022	2023
	$	$	$
Balance of accounts payable	4000	6000	5000
Credit purchases		40000	50000
GST charged		4000	5000

$$\text{For the year 2022: } \frac{\$5000 \text{ x } 365}{\$44\,000} = \frac{\$1\,825\,000}{\$44\,000} = 41.1 \text{ or } 41 \text{ days}$$

$$\text{For the year 2023: } \frac{\$5\,500 \text{ x } 365}{\$55\,000} = \frac{\$2\,007\,500}{\$55\,000} = 36.5 \text{ or } 37 \text{ days}$$

The trend in this ratio is favourable: credit purchases have increased over time, yet the average repayment period has decreased by four days (from 41 to 37).

The reason for such a change may be difficult to identify, although it could be linked to improved accounts receivable turnover. You saw in section 13.4 that Blackrazor reduced the average collection period from accounts receivable from 37 days to 28 days over this two year period. As the business was receiving cash at an earlier time from its accounts receivable, this may have allowed it to settle accounts with suppliers at a faster rate.

MANAGING TURNOVER RATE

The accounts payable turnover rate should be compared to the credit terms offered by suppliers. Some suppliers may tolerate an occasional late payment, but they won't be happy if their credit terms are continually abused. A creditor may cut off supply to a business if it is always late with its payments. This may be a hefty price to pay, particularly if the supplier's products are a fast moving inventory item.

EXAM SUCCESS
If accounts payable turnover increases, you may be asked to state one positive and one negative in relation to this change. Revise answers for both possibilities.

The accounts payable turnover should also be compared with previous reporting periods, so that any significant trends can be identified. The budget expectations of management may also be used as criteria for measurement. Always keep in mind that the accounts payable turnover may change because of the needs of management at a particular time.

The ability to repay accounts payable may reflect the current liquidity of the business its ability to meets its debts as they fall due. For example, if ample cash resources are available, the accounts payable turnover may fall sharply. At other times, cash reserves may be low, perhaps because of seasonal variations or because the economy has slowed down. If consumers aren't spending, inventory turnover will fall, and accounts receivable turnover may also slow down as money becomes tight.

The tasks of managing and controlling inventory, accounts receivable and accounts payable must not be viewed as isolated activities. They are the most crucial tasks faced by any manager of a small business that is involved in trading activities. A manager who doesn't give these areas sufficient attention is risking failure. The ability to buy and sell inventory at a fast enough rate, coupled with the demands of collecting cash from accounts receivable and paying cash to accounts payable, determines how successful a business will be. A trading business is all about managing the balancing act between its cash cycle and its accounts payable turnover.

Late payments can damage your business in many ways.

13.6 CHECK YOUR UNDERSTANDING

WB PAGE 235

1. 'Accounts payable turnover shouldn't be predetermined, as it depends on other factors.' Describe two factors that should be taken into account when evaluating accounts payable turnover.
2. What are the possible implications of having a very fast accounts payable turnover? Explain your answer fully.
3. What is a possible implication of a slow accounts payable turnover? Explain your answer fully.

13 CHAPTER REVIEW

KEY CONTENT

- [13.1] One of the most important aspects of managing a trading business is controlling inventory. The Inventory account, and the use of inventory cards, are key tools in inventory control, although there are many other procedures than can also be used to assist.
- [13.2] The inventory turnover rate is a financial indicator that shows how quickly a business can turn its inventory into sales. Faster turnover is generally better, but each business and industry will have different criteria for the ideal rate.
- [13.3] Businesses that make credit sales must monitor and evaluate how they manage accounts receivable and avoid bad debts. A key tool for this is an age analysis of accounts receivable, which classifies Accounts Receivable accounts according to the age of their debt.
- [13.4] The accounts receivable turnover rate is a financial indicator that shows the average time taken by accounts receivable to settle their accounts.
- [13.5] The cash cycle is the time taken to collect cash from the inventory bought for resale by the business. It's the sum of the inventory turnover and accounts receivable turnover.
- [13.6] The accounts payable turnover rate is a financial indicator that shows the average time taken by a business to pay its accounts payable.

CHAPTER 13 EXERCISES

1 Inventory turnover

WB PAGE 236

On 1 January 2023, Total Turntables had inventory on hand of $46 400. During 2023 the business sold goods for a total of $294 000. The cost price of goods sold totalled $206 480 and inventory as at 31 December 2023 is valued at $42 200. The management of the business states that the inventory turnover in 2022 was 87 days.

a Calculate inventory turnover for 2023 for Total Turntables.

b Compare the results of 2023 to those achieved in 2022. Comment briefly on the trend in the inventory turnover rate.

2 Comparing inventory turnovers

WB PAGE 236

The following information relates to two similar businesses.

	Ballarat Books	Bendigo Books
	$	$
Inventory as at 1 January 2023	54 200	51 600
Inventory as at 31 December 2023	52 800	54 200
Cost of goods sold for 2023	307 625	280 370

a Calculate the inventory turnover in days for each of these businesses for 2023.

b Which business managed its investment in inventory more efficiently during 2023? Explain your answer fully.

c What other information could you use to evaluate the success or otherwise of the inventory turnover rates determined in part a?

d 'If the inventory turnover is faster, it means the business has sold more goods.' Do you agree with this statement? Explain your answer fully.

3 Trend in inventory turnover

WB PAGE 237

Pat Carrier is the owner of Carrier's Camping Gear. He provides the following financial data from his business records.

	2020	2021	2022	2023
	$	$	$	$
Cost of goods sold	122 000	124 000	128 000	134 000
Balance of inventory	35 600	36 000	38 500	44 500

Carrier is quite happy with the business's performance over the last few years, as he has noted that the cost of goods sold has increased every year.

a Calculate the inventory turnover for Carrier's business for the years 2021, 2022 and 2023.

b Comment on Carrier's observations about the business's performance, taking into account your turnover calculations.

c Explain how inventory cards can assist an owner of a trading business to improve inventory turnover results.

4 Accounts receivable turnover

WB PAGE 238

Fakhri's Fabrics had total accounts receivable of $12 400 on 1 January 2023, while on 31 December 2023 accounts receivable were $11 600. Credit sales for the year were $174 000, plus GST. The business offers credit customers 30 days to settle their accounts.

a Calculate the accounts receivable turnover in days to show the average time taken for settlement of accounts.

b Comment on the performance of the business in controlling its accounts receivable.

c Explain how an age analysis of accounts receivable may help management to control its accounts receivable.

d If this business has inventory turnover of 73 days, calculate the length of the cash cycle. Explain the significance of this result.

5 Comparing accounts receivable turnovers

WB PAGE 239

The following information is provided by the management of two smartphone retailers. Both businesses supply goods on 30 days' credit to regular customers.

	Android Unlimited	Smartphone Plus
	$	$
Accounts receivable balance as at 30 June 2022	16 500	22 800
Accounts receivable balance as at 30 June 2023	18 300	19 400
Cash sales for the year (excluding GST)	204 600	225 600
Credit sales for the year (excluding GST)	187 920	247 925

a Calculate the accounts receivable turnover in days, and write a brief comment on the businesses' collection procedures.

b Describe four steps management could take to improve accounts receivable turnover.

6 Age analysis of debts

WB PAGE 240

The manager of Skyranger Drones asks for your help with the accounts receivable of the business. The invoices sent to accounts receivable clearly state that the credit terms are 60 days. No discounts are offered for early payment. The following summary of the business's accounts receivable was drawn up at the end of October 2023.

AGE ANALYSIS OF ACCOUNTS RECEIVABLE

Total accounts receivable	0–30 days	31–60 days	61–90 days	91–120 days	121 days and over
$42 500	$3400	$29 750	$4250	$2975	$2125

The manager isn't overly concerned, because he's been told that most accounts receivable should be in the top of the age analysis table. As the business sells on 60 days' credit, he's happy that most accounts receivable are in the 0 60 days categories.

- **a** Redraft the age analysis table by adding a percentage breakdown of each category.
- **b** Comment on your percentage analysis, particularly in light of the manager's statement. Highlight any major concerns you have about the results.
- **c** Recommend at least three changes this manager could make in terms of the way the business deals with accounts receivable. Explain the reasons for your recommendations fully.

7 Comparing age analyses

WB PAGE 241

The following age analyses of accounts receivable are supplied by the management of Trachan's Tractor Parts.

AGE ANALYSIS OF ACCOUNTS RECEIVABLE AS AT 31 DECEMBER 2022

Total accounts receivable	0–30 days	31–60 days	61–90 days	91 days and over
$17 800	$12 460	$3560	$1246	$534

AGE ANALYSIS OF ACCOUNTS RECEIVABLE AS AT 31 DECEMBER 2023

Total accounts receivable	0–30 days	31–60 days	61–90 days	91 days and over
$19 600	$14 700	$4312	$392	$196

Additional information

- The business allows 30 days' credit to its customers.
- Credit sales for 2023 totalled $220 000, including GST
- Accounts receivable turnover was 43 days in 2022 and 41 days in 2021.

- **a** Prepare an age analysis of accounts receivable for 2023 in percentage terms.
- **b** Calculate the accounts receivable turnover for 2023.
- **c** Referring to your answers to part **a** and **b**, comment on management's effectiveness in collecting debts during the 2023 reporting period.

8 Age analysis and turnover rates

WB PAGE 241

Parlato's Printing Supplies allows 60 days' credit to its regular customers. During 2023 the business sold $285 000 worth of goods on credit, plus GST. The management of the business provides the following details relating to accounts receivable at the end of the year, along with the equivalent details from the previous year.

AGE ANALYSIS OF ACCOUNTS RECEIVABLE AS AT 31 DECEMBER 2023

Total accounts receivable	0–30 days	31–60 days	61–90 days	91 days and over
$44 800	$23 000	$16 200	$5 150	$450

AGE ANALYSIS OF ACCOUNTS RECEIVABLE AS AT 31 DECEMBER 2022

Total accounts receivable	0–30 days	31–60 days	61–90 days	91 days and over
$49 200	$23 500	$12 400	$10 960	$2 340

The accounts receivable turnover rate for 2022 was 68 days.

a Calculate the accounts receivable turnover for 2023.

b Calculate an age analysis of accounts receivable for 2022 and 2023 to show the percentage of accounts receivable in each category.

c Comment on the success or otherwise of management's collection of debts over the last 12 months.

9 Accounts payable turnover

WB PAGE 242

Bairnsdale Book Store had accounts payable of $12 800 on 1 October 2022, while on 30 September 2023 accounts payable totalled $14 400. Credit purchases for the year were $156 000, plus GST. The business purchases its inventory on credit terms of 30 days.

a Calculate the accounts payable turnover.

b Comment on the performance of the business in meeting its commitments to its suppliers.

10 Comparing accounts payable turnovers

WB PAGE 242

The owners of two mag wheel retailers provide the following information.

	Mags & Rims	Lowriders
	$	$
Accounts payable balance as at 31 December 2022	31 400	23 400
Accounts payable balance as at 31 December 2023	36 800	26 200
Cash purchases for the year (excluding GST)	123 400	112 800
Credit purchases for the year (excluding GST)	320 000	383 750
Credit terms of suppliers	30 days	30 days

a Calculate the accounts payable turnover for both businesses for 2023.

b Suggest two reasons why accounts payable turnover may not be in compliance with the credit terms offered by suppliers.

11 Trends in accounts payable turnover

WB PAGE 243

Tony Arthurson, the owner of Footy Fever Superstore, is concerned about how long he's taking to repay some of his suppliers. Arthurson purchases all the inventory for his business on credit. He sometimes gets reminders about his credit accounts, but needs actual data in order to understand what is happening in his business.

The following information is extracted from his final accounting reports for the last three years.

	2021	2022	2023
	$	$	$
From the income statements:			
Cost of goods sold		88 000	92 000
From the balance sheets:			
Balance of inventory	25 400	28 300	32 200
Balance of accounts payable	4 900	5 900	7 100

a Reconstruct the Inventory Control account to determine the credit purchases the business made during 2022 and 2023.

b Calculate the accounts payable turnover for 2022 and 2023.

c Comment on the turnover results you have calculated in part b. Should Arthurson be concerned? Give reasons for your answer.

12 Managing the cash cycle

WB PAGE 244

The following information relates to Dalrymple Timber Supplies.

	1 January 2023	31 December 2023
	$	$
Inventory on hand	24 600	25 800
Accounts receivable balance	11 900	13 100
Accounts payable balance	12 500	14 400
Credit sales for the year (including GST)		181 500
Cost of goods sold for the year		131 040
Budgeted inventory turnover		60 days
Inventory turnover in 2022		72 days
Standard credit terms for accounts receivable		30 days
Accounts receivable turnover in 2022		32 days
Credit terms of suppliers		30 days

Note: all inventory purchases are made on credit.

a Calculate the inventory turnover and accounts receivable turnover for 2023.

b Determine the length of the cash cycle.

c Reconstruct the Inventory account to determine the credit purchases for the year.

d Calculate the accounts payable turnover for 2023.

e Comment on the trend in the cash cycle and the success of the business in meeting its objectives with regard to the turnover of inventory and accounts receivable.

f Compare the cash cycle to the accounts payable turnover rate. Are there any dangers in what is happening in this business at the moment? Explain your answer fully.

CHAPTER CHECKLIST

Now that you have finished Chapter 13, double check your progress.

Are you ready for your Unit 3 assessment?

I have …

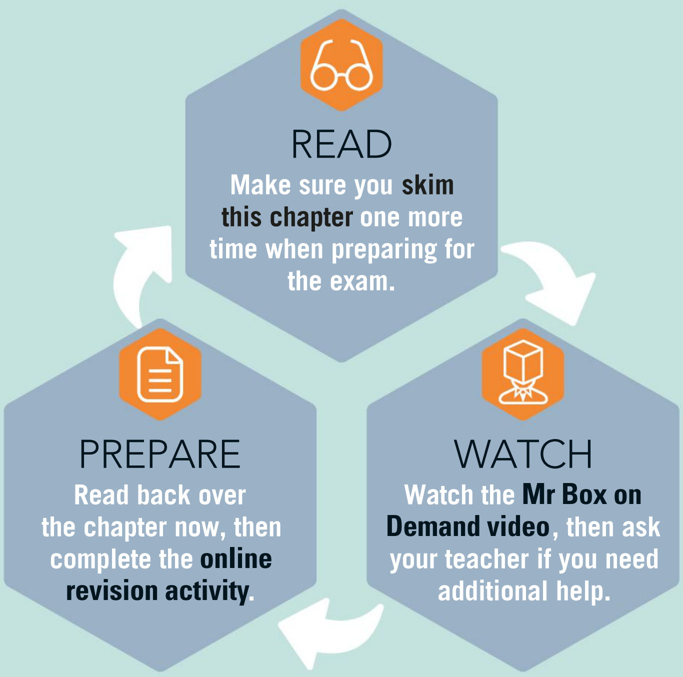
- completed all 'Check Your Understanding' questions
- completed all exercises
- handed in my workbook for marking.

I understand …

- internal control procedures to safeguard resources against theft and fraud
- financial indicators: inventory turnover, accounts payable turnover, accounts receivable turnover
- non financial information available to assist analysis and decision making in relation to inventory, accounts receivable and accounts payable.
- strategies to improve the management of inventory, accounts receivable and accounts payable
- strategies to improve business performance.

I can …

- discuss strategies to improve the management of inventory, accounts receivable and accounts payable
- construct appropriate graphical representations to assist with the analysis of classified accounting reports and other information to evaluate the performance of a business
- explain and apply appropriate internal control procedures.



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UNIT 4

RECORDING, REPORTING, EVALUATING AND PLANNING ACCOUNTING INFORMATION

Accounting systems do more than record numbers – they are information systems that provide decision makers with vital financial data. Accountants work with managers and business owners to create and interpret financial reports, and analyse the results to suggest strategies for improving the performance of a business.

In this unit you will learn about:

- the purposes of accounting systems
- the role of accounting as an information system
- how to use the accrual basis of accounting to prepare reports
- the role and importance of budgeting in decision making in a business
- how to interpret accounting information from reports and graphical representations.

Area of Study 1:
Extension of recording and reporting

On completion of this unit the student should be able to record financial data and balance day adjustments using a double entry system, report accounting information using an accrual based system and evaluate the effect of balance day adjustments and alternative methods of depreciation on accounting reports.

Area of Study 2:
Budgeting and decision-making

On completion of this unit the student should be able to prepare budgeted accounting reports and variance reports for a trading business using financial and other relevant information, and model, analyse and discuss the effect of alternative strategies on the performance of a business.

CHAPTERS

14 · 15 · 16 · 17 · 18 · 19 · 20 · 21 · 22 · 23

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14 BAD AND DOUBTFUL DEBTS

In Unit 3 you focused on learning how to record the transactions of a small trading business. But it's not enough just to record data; it's an accountant's job to create reports using that data. Management needs to be able to understand what the business's financial data means in order to make decisions, and that understanding comes from effective reports.

In this chapter you begin the reporting process by looking at the bad and doubtful debts that a business may accumulate from its credit customers, and learning how to report those debts accurately.

LEARNING OBJECTIVES

By the end of this chapter, you will be able to:

- distinguish between bad debts and doubtful debts [14.1]
- explain the need to account for doubtful debts [14.1]
- prepare a general journal to create an allowance for doubtful debts [14.1]
- prepare a general journal entry to write off a bad debt [14.2]
- prepare an adjusting entry to record bad debts expense for a period [14.3]
- explain the link between the accounting assumptions and qualitative characteristics of accounting and bad and doubtful debts [14.3].

UNIT 4 – PROGRESS 14 15 16 17 18 19 20 21 22 23

14.1 What are bad and doubtful debts?

14.2 Writing off debts

14.3 Adjusting the allowance for doubtful debts account

Chapter review and exercises

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14.1 WHAT ARE BAD AND DOUBTFUL DEBTS?

Whenever a trading business provides goods to a customer on credit, there is the risk of non payment. A business may investigate a customer's background and credit rating, but sometimes what looks like a reasonable risk becomes a problem.

BAD DEBTS

bad debt
expense account created when an accounts receivable is written off as irrecoverable

Slow paying accounts receivable should be reminded of their obligations via email, telephone calls and reminder letters. Sometimes legal action may be used as a threat to get customers to pay. However, these tactics don't always succeed, and many businesses eventually face what is known as a bad debt. A **bad debt** is an account receivable that management accepts cannot (or won't) pay the amount outstanding.

This management decision may be due to legal advice from a lawyer representing the customer, possibly advising that they are bankrupt. Another possibility is when a customer cannot be located; people may move interstate (or overseas) to avoid their debts. Rather than spend hundreds or thousands of dollars chasing someone around the country (or the world), a business may choose to write off a relatively small debt as uncollectable.

A bankrupt credit customer is likely to become a bad debt.

DOUBTFUL DEBTS

Under accrual accounting, profit is defined as revenue earned less expenses incurred. When an income statement is prepared, revenue earned may include both cash and credit sales. Credit sales are usually recognised when goods have been provided to the customer and an invoice has been issued.

As you have seen, there is a risk that some of these credit sales may not be collected in the future. This raises the question of whether or not to report all credit sales in an income statement. As accountants are required to represent financial data faithfully, it would be wrong not to report the total credit sales earned in a given period. However, to acknowledge that there is some risk in relation to all the sales being collected in credit, it's common practice to create an **allowance for doubtful debts** at the end of a reporting period. This allowance is made in recognition of the risk attached to selling goods on credit.

allowance for doubtful debts
a negative asset account based on predictions of future bad debts

Once a business has been trading for a period of time, it may be able to identify a pattern of non payment. For example, perhaps 5% of all credit sales are never collected from accounts receivable. If this pattern is established, management may apply this percentage at the end of each period to allow for some accounts to turn into bad debts in the future.

RECORDING BAD AND DOUBTFUL DEBTS

If bad debts are expected by a business, this should be recognised on balance day as it would more *faithfully represent* the true financial situation. It also creates an expense for the current reporting period, which acknowledges that management doesn't expect to collect all amounts owing by accounts receivable.

EXAMPLE 14.1

The management of Tullamarine Trailers discusses bad debts at its monthly meeting.

Credit sales made during 2023	$100 000
Percentage of credit sales not usually collected	5%

Management believes that this trend of uncollected accounts will continue, so an allowance for doubtful debts is created with the following general journal entry.

GENERAL JOURNAL

Date	Details	Dr	Cr
31 Dec	Bad debts expense	5 000	
	Allowance for doubtful debts		5 000
	Adjusting entry to create allowance for doubtful debts at 5% of credit sales (Memo 76)		

The double entry to create an allowance for doubtful debts has a two fold effect on the final accounting reports:

- It creates a bad debts expense, which decreases the net profit for the period. Owner's equity thus also decreases in the balance sheet.
- The current assets of the business are indirectly decreased in the balance sheet, as the allowance for doubtful debts is deducted from accounts receivable.

If accounts receivable had a total amount owing of $65 000 as at 31 December, it would be reported as shown below.

Current assets

Accounts receivable	65 000
Less: Allowance for doubtful debts	5 000
	60 000

When an allowance for doubtful debts is created, individual accounts receivable aren't named. The allowance is simply based on a percentage of credit sales made during a period. The amount recognised should be as accurate as possible, in order to be true to the demands of faithful representation.

Bad debts are a fact of life for many businesses, so it's sensible to allow for this possibility in the period in which credit sales are reported. The potential losses created by future bad debts are a *relevant* expense to the users of accounting reports, and they should be reported at the end of each reporting period.

14.1 CHECK YOUR UNDERSTANDING

WB PAGE 246

1. Explain the circumstances in which management may decide to create an allowance for doubtful debts.
2. State the double entry to create an allowance for doubtful debts.
3. Explain why an allowance for doubtful debts is reported in a balance sheet.
4. Distinguish between doubtful debts and bad debts.

14.2 WRITING OFF DEBTS

Having established an allowance for doubtful debts at the end of a reporting period, the next step in the process is to write off a credit customer when they actually become a bad debt.

Example 14.1 showed that Tullamarine Trailers anticipates about $5000 in bad debts in the next period. To demonstrate the complete process, the following two transactions have been provided for the subsequent reporting period.

EXAMPLE 14.2

31 Mar Accounts receivable – Y Settle owes the business $2200 and hasn't responded to countless emails and reminder letters. A debt collector attempted to collect the debt, but the business has now been advised that this customer has disappeared interstate.

Management decides to write the account off as a bad debt, without *any* cash being received.

GENERAL JOURNAL

Date	Details	Dr	Cr
31 Mar	Allowance for doubtful debts	2 000	
	GST clearing	200	
	Accounts receivable – Y Settle		2 200
	Account written off as bad debt (Memo 81)		

There are three components to this entry:

- The first step is to identify the GST component of the debt. As the total debt was $2200, dividing this amount by 11 determines the GST amount charged at the time of sale: $2200/11 = $200. As the business will collect the GST charged on this sale, it must be cancelled so that the business doesn't overpay the ATO. A debit to the GST Clearing account is made to counteract the credit made to GST Clearing at the time of the sale.
- The remainder of the debt (i.e. $2000) is debited against the balance of the Allowance for Doubtful Debts account. The business allowed for $5000 in bad debts; this is its first bad debt for the period, but management's predictions are starting to come true!
- The third entry is the credit to Accounts Receivable. As the account had a balance of $2200, this entry closes the account completely and Y Settle has now been removed from the books of this business.

Debt collectors may be necessary to try to collect overdue accounts.

EXAMPLE 14.3

15 Jun Legal advice is received that one of Tullamarine Trailers' customers, IM Shiftee, has been declared bankrupt and is only paying 30 cents in the dollar on all his debts. The Accounts Receivable account for IM Shiftee shows that he still owes the business $2750. The remainder of this account is to be written off as irrecoverable.

This results in the following general journal entries.

GENERAL JOURNAL

Date	Details	Dr	Cr
15 Jun	Cash at bank	825	
	Allowance for doubtful debts	1 750	
	GST clearing	175	
	Accounts receivable – Y Settle		2 750
	Account written off as bad debt (Memo 81)		

This journal entry is similar to the one in Example 14.2, with one exception. As the customer is paying all debts at the rate of 30 cents in the dollar, the business will receive $825 (30% of $2750). Once the cash received is recorded, the rest of the process is exactly the same.

- The amount that remains owing is $2750 $825 = $1925. Divide this amount by 11 to determine the GST still owing: $1925 ÷ 11 = $175.
- Deduct the GST from the total still owing to determine the amount to be written off against the allowance for doubtful debts (i.e. $1925 $175 = $1750).
- By recording the cash received and making the adjustment to the GST Clearing account, the business achieves its goal of writing off the customer's account.

Add up the three entries on the debit side to ensure that the total amount owing has now been taken care of in this case, $825 + $1750 + $175 = $2750.

EXAM SUCCESS

When writing off an accounts receivable, always check that the three debit entries equal the balance of the account.

14.2 CHECK YOUR UNDERSTANDING

WB PAGE 247

1. Explain the link between faithful representation and the creation of an allowance for doubtful debts.
2. State the double entry to write off an accounts receivable as irrecoverable.
3. If some cash is received from an accounts receivable that has been declared bankrupt, how should you modify the double entry you stated in Question **2**?

14.3 ADJUSTING THE ALLOWANCE FOR DOUBTFUL DEBTS ACCOUNT

Having written off accounts receivable against the Allowance for Doubtful Debts account, the final step is to prepare this account for the subsequent period.

Continuing with Tullamarine Trailers, the Allowance for doubtful debts account would appear as shown below.

Allowance for doubtful debts

		$			$
31 Mar	Accounts receivable	2 000	31 Jan	Balance	5 000
15 Jun	Accounts receivable	1 750			

The original estimate of future bad debts was $5000, and this appears on the credit side of the account. Two different accounts became bad debts during the period, so the two amounts that were written off appear on the debit side.

We can now compare the estimate of bad debts and the actual bad debts incurred. The ledger account shows that, in this case, management's estimate of bad debts was a little high:

Prediction of future bad debts	$5000
Actual bad debts written off	$3750 (2000 + 1750)

The allowance is based on an estimated figure, so it's not expected to be perfect. Still, it's important to make as accurate an estimate as possible, because it has an impact on the profit reported for a given period.

If an estimate was high in one period, the adjustment made on balance day will automatically be adjusted for the following period. For example, if management wanted the allowance for doubtful debts to be maintained with a balance of $5000, the account would look like the example below.

Allowance for doubtful debts

		$			$
31 Mar	Accounts receivable	2 000	1 Jan	Balance	5 000
15 Jun	Accounts receivable	1 750	31 Dec	Bad debts expense	3 750
31 Dec	Balance	5 000			
		8 750			8 750
			1 Jan	Balance	5 000

Bad debts expense

		$			$
31 Dec	Allowance for doubtful debts	3 750			

Despite the Allowance for Doubtful Debts account having a balance of $5000, the actual expense for this period for bad debts is only $3750. This is because in the previous year, the estimate was $1250 too high. The anticipated bad debts were $5000, yet the accounts written off were for only $3750. Therefore, this is the amount that would be reported in the income statement at the end of the period.

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When management's prediction of bad debts is too high, they may decrease the balance of the Allowance for Doubtful Debts account. For example, if management decided to decrease the allowance to only $4000, the accounts would be entered as below.

Allowance for doubtful debts

		$			$
31 Mar	Accounts receivable	2 000	1 Jan	Balance	5 000
15 Jun	Accounts receivable	1 750	31 Dec	Bad debts expense	2 750
31 Dec	Balance	4 000			
		7 750			7 750
			1 Jan	Balance	4 000

Bad debts expense

		$			$
31 Dec	Allowance for doubtful debts	2 750			

The figure reported for bad debts expense in this case is again $1250 lower than the balance of the Allowance for Doubtful Debts account. This reflects the high estimate from the year before.

The Allowance for Doubtful Debts account adjusts itself automatically, depending on whether a high or low estimate was made in the previous period.

An allowance for doubtful debts is only an estimate.

Keep in mind that the allowance for doubtful debts cannot satisfy the demands of *verifiability*. It's simply an estimate of future events. However, it does comply with *relevance*, because it recognises the potential for credit sales not being collected. This may more *faithfully represent* the situation faced by a business, especially if it has a history of bad debts over a number of consecutive periods.

14.3 CHECK YOUR UNDERSTANDING

WB PAGE 248

1 'The allowance for doubtful debts is only an estimate and therefore distorts the profit reported by management.' Comment on this statement.

2 Explain the link between the period assumption and the creation of an allowance for doubtful debts.

3 'The creation of an allowance for doubtful debts causes a conflict between the demands of verifiability and faithful representation.' Do you agree? Discuss.

14 CHAPTER REVIEW

KEY CONTENT

- [14.1] Whenever a trading business provides goods to a customer on credit, there is a risk of non payment. A bad debt is an account receivable that cannot (or won't) pay the amount outstanding.
- [14.2] An Allowance for Doubtful Debts account is created to reflect the possibility of bad debts. It provides an allowance based on estimates of the likely level of bad debts in a reporting period. Individual accounts receivable aren't named when an allowance for doubtful debts is created.
- [14.3] The double entry to create an allowance for doubtful debts creates a bad debts expense, which leads to a decrease in net profit and owner's equity. The current assets of the business are indirectly decreased, as the allowance is deducted from accounts receivable.
- [14.3] The allowance is based on an estimated figure, and doesn't need to be perfect. It's still important to make as accurate an estimate as possible.

CHAPTER 14 EXERCISES

SPREADSHEET

1 Creating an allowance for doubtful debts

WB PAGE 249

Jacob Hutchinson is the owner of Hutchie's Horse Gear, a small business that sells saddles, bridles and other horse riding equipment. He has sold over $20 000 worth of goods in the last 12 months but isn't certain that all of his credit customers will pay their accounts. His accountant has advised that he should create an allowance for doubtful debts of about 3% of his credit sales. This was noted on Memo 34. Total accounts receivable at the end of the period were $5600.

a Prepare the general journal entry required on 30 June 2023 to create an allowance for doubtful debts.

b Show how accounts receivable, with the allowance for doubtful debts, would be reported in the balance sheet as at 30 June 2023.

SPREADSHEET

2 Creating an allowance for doubtful debts

WB PAGE 249

Sullivan's Shoes is owned and operated by Brooke Sullivan. She has provided the information below from her records at 31 May 2023.

Cash sales for the year:	$63 000
Credit sales for the year:	$25 500
Sales returns from accounts receivable:	$2 500
Balance of accounts receivable:	$12 500

a Prepare the general journal entry to create an allowance for doubtful debts equal to 2.5% of net credit sales (noted on Memo 87).

b Prepare a balance sheet extract to show how accounts receivable would be reported as at 31 May 2023.

3 Writing off a bad debt

WB PAGE 250 SPREADSHEET

Eva Harrington is a credit customer of Northside Music & Beats. The business sold goods to her on 7 September 2022 for $200, plus GST. No payment has ever been made on her account. The management of the business has tried to locate Harrington for several months, but without success. On 30 June 2023, management decides to write off the debt as irrecoverable and this is noted on Memo 23. On balance day of the previous period, an allowance for doubtful debts of $300 was created.

- **a** Prepare the general journal entry to write off Harrington's debt.
- **b** Prepare the following general ledger accounts: Accounts Receivable Harrington, and Allowance for Doubtful Debts. Balance these accounts.

4 Writing off a bad debt

WB PAGE 251 SPREADSHEET

A credit sale of $480, plus GST, was made 18 months ago to a company named Cheetem Pty Ltd. The customer has made no payment since that time. At the end of the previous period, a decision was made to create an allowance for doubtful debts of $600. Management has been informed by Cheetem's bank that the firm has collapsed and the owner can't be located. It's believed that he has disappeared interstate. All details were noted on Memo 121.

- **a** Prepare the general journal entry to write off Cheetem's debt on 10 October 2023.
- **b** Post your general journal entry to both the Accounts Receivable account and the Allowance for Doubtful Debts account in the general ledger.
- **c** Outline the steps a business should follow before granting credit to customers.

5 Bad debt with a cash receipt

WB PAGE 252 SPREADSHEET

The general ledger of Fitzroy Furniture included the following account.

Accounts receivable – D Pendable

		$			$
31 Mar	Balance	770			

The owner of Fitzroy Furniture has just received legal advice that D Pendable has been declared bankrupt. The correspondence received also indicates that only 40 cents in the dollar will be paid and a cheque has been enclosed for this amount. Memo 312 notes all details regarding this payment. Total cash received from accounts receivable during March was $14 000. The balance of the Accounts Receivable account at the start of March was $21 000 and the Allowance for Doubtful Debts account had a credit balance of $1000.

- **a** Prepare the general journal entry to write off the D Pendable account, including the receipt of cash representing the payment of 40 cents in the dollar.
- **b** Prepare the following general ledger accounts to show the receipt of cash from D Pendable and the bad debts entry: Accounts Receivable D Pendable, Bad Debts and Allowance for Doubtful Debts.
- **c** State three tactics management may choose to adopt when an accounts receivable is overdue with a payment.

SPREADSHEET

6 Accounts receivable written off

WB PAGE 253

The following information relates to S Case, a credit customer of Perfect Props.

12 July 2022	Credit sale of $380, plus GST of $38
14 August 2022	Credit sale of $820, plus GST of $82
31 December 2022	An allowance for doubtful debts of $200 was created
17 April 2023	Cash receipt of $100
31 December 2023	Legal advice received to the effect that S Case has been declared bankrupt. All debts are to be paid 20 cents in the dollar. A payment was received for 20% of Case's balance. The remainder of the account is to be written off as a bad debt (Memo 34).

a Prepare the Accounts Receivable S Case account as it would appear in the general ledger of Perfect Props. The account should include all relevant entries from 12 July 2022 to 31 December 2023.

b In light of the above information concerning the S Case account, comment on the accuracy of the income statement that was prepared for Domestic Appliances for the year ended 31 December 2022.

SPREADSHEET

7 Adjusting the allowance for doubtful debts

WB PAGE 254

The following transactions occurred between Encore Music Store and one of its credit customers, N Kelly. The business has allowed for future bad debts by establishing an allowance for doubtful debts of $3500 on 30 June 2022.

2022		
Jul	3	Credit sale of musical instruments $4200, plus GST of $420 (cost price $2150)
	9	Credit sale of musical equipment $2700, plus GST of $270 (cost price $1230)
	15	Kelly made a payment on his account of $500
	31	Legal advice was received from Kelly's solicitor advising Encore Music that its client has been declared bankrupt. All creditors of Kelly are to be paid 35 cents in the dollar. Memo 97 was completed to record all such details.

a Using the general journal, prepare the entry required to write off Kelly as a bad debt on 31 July 2022.

b Given that the Allowance for Doubtful Debts account has a balance of $3500 on 30 June 2022, show how the account would look after Kelly's account was written off.

c No other bad debts were experienced by the business in the year ended 30 June 2023. The business had net credit sales of $250 000 in this period, and management has decided to adjust the allowance for doubtful debts to equal 2.5% of net credit sales. Prepare the adjusting entry required on 30 June 2023.

d The accountant has stated that an allowance for doubtful debts should be maintained in order to comply with the demands of faithful representation. Do you agree? Explain your answer fully.

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8 Adjusting the allowance for doubtful debts

WB PAGE 255 SPREADSHEET

Montrose Exports has an accounts receivable on its books who has recently disappeared without trace. Memo 37 relates to this customer (named Scott Nodo) and gives the amount owing as $660. Montrose Exports currently has an allowance for doubtful debts of $500 in the general ledger, but has decided to increase it to $700 on 30 June 2023.

a Using the general journal, prepare the entry required on 30 June 2023 to write off the amount owing by Scott Nodo as a bad debt.

b Prepare the Allowance for Doubtful Debts account, including the entry to write off Nodo and the adjusting entry to increase the allowance to $700.

c Prepare the following general ledger accounts: Accounts Receivable S Nodo and Bad Debts.

9 Bad and doubtful debts

WB PAGE 256 SPREADSHEET

Geelong Scooterworld has just completed its first year of trading on 31 December 2022. During the year the firm earned credit sales of $102 000, with $19 200 remaining unpaid on 31 December. It was decided to create an allowance for doubtful debts equal to 2% of credit sales.

On 30 November 2023 a credit customer, Kaput Ltd, was written off as a bad debt. This account had a balance of $550 at the time. No other accounts receivable were written off during the year.

During 2023 the business had credit sales of $120 000, and an allowance for doubtful debts of 1.5% of credit sales was required at the end of the period.

a Prepare the adjusting entry to create the allowance for doubtful debts on 31 December 2022 and the relevant closing entry on that date.

b Prepare a balance sheet extract to show how accounts receivable would be reported at 31 December 2022.

c Prepare the Allowance for Doubtful Debts account, including entries for:

i the creation of the allowance on 31 December 2022

ii the writing off of the bad debt on 30 November 2023

iii the adjustment to the allowance for doubtful debts on 31 December 2023

d Comment briefly on the accuracy of the allowance for doubtful debts created on 31 December 2022.

10 Bad and doubtful debts

WB PAGE 257 SPREADSHEET

The following information relates to the business of OK Go Pro. The balance of the Accounts Receivable account at 31 December 2022 was $25 000, and the balance of the Allowance for Doubtful Debts account was $1200. During the year ended 31 December 2023 the following events are noted.

- Credit sales for the year amount to $110 000.
- Accounts receivable is expected to be about $18 000.
- Bad debts to be written off total $1320.
- The allowance for doubtful debts is to be 1% of credit sales.

a Prepare the Allowance for Doubtful Debts account as it would appear in the general ledger from 31 December 2022 to 31 December 2023.

b Prepare all relevant general journal entries in relation to bad debts and the allowance for doubtful debts during 2023.

c Explain how accounting for an allowance for doubtful debts complies with the demands of the qualitative characteristic of relevance.

SPREADSHEET

11 Bad and doubtful debts

WB PAGE 258

The management of All Things Analog has provided the following information.

BALANCE SHEET (EXTRACT) AS AT 30 JUNE 2022

Current assets	$	$
Accounts receivable	18 500	
Less: Allowance for doubtful debts	925	17 575

a On 8 March 2023 a credit customer, F Chislett, was declared bankrupt. Prepare the general journal to write off the account balance of $440.

b On 18 June 2023, legal advice was received in relation to the account of Larry Lightfingers, who owed the business $1210. A cheque for $484 was enclosed as final payment, as only 40 cents in the dollar was going to be paid. Prepare the general journal entry to write off the account.

c Management has decided to increase the allowance for doubtful debts to 1% of credit sales for the year ended 30 June 2023. Total credit sales amounted to $164 000, with sales returns made by accounts receivable being $2000 for the year. Prepare the adjusting entry required for this to take effect.

d The business received notification that on 17 August 2023 accounts receivable S Banks has been declared bankrupt. The account, which had a balance of $660, is to be written off. Prepare the appropriate journal entry.

e Prepare a general journal entry to write off the account of B Nevan on 15 December 2023. The account had a balance of $1650, and a payment of 30 cents in the dollar was received from Nevan's solicitor.

f On 30 June 2024 it was decided to have an allowance for doubtful debts of $1750. Prepare the adjusting entry required on this date.

g Prepare the Allowance for Doubtful Debts account as it would appear in the general ledger of All Things Analog for the period 30 June 2022 to 30 June 2024.

h State the amount that would be reported as bad debts expense for each of the years ended 30 June 2023 and 2024.

i The owner of the business is concerned that the allowance for doubtful debts cannot satisfy verifiability, and perhaps he shouldn't be including it in his balance sheet. Do you agree? Discuss.

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ETHICAL CONSIDERATIONS

WB PAGE 261

Lee King is the owner of LK Tools, a trading business that provides tools and equipment to carpenters, plumbers and electricians. King provides credit to many of his customers, as most of his competitors also do the same and he doesn't want to miss out on sales.

Unfortunately, some of his biggest customers owe him a lot of money. He has employed a debt collection agency in the past, with mixed results. They have been successful in some cases, and King has paid them a fee of 2.5% of the debts collected. Other cases have been unsuccessful, and several accounts receivable have been written off as bad debts over the last few years.

Last weekend King was at a social event, discussing this issue with a few friends. One friend, who runs a panel beating business, said that he has no problem collecting money from slow payers. The local motorcycle club runs a debt collection service that, according to King's friend, has a 100% success rate. The only issue is that their fee is 50% of the amount owing.

As LK Tools currently has overdue debts totalling $120 000, these comments have made King give some serious thought to using alternative methods of debt collection.

a Suggest three strategies that King could use to try to collect his outstanding debts before referring the matter to a debt collection agency.

b Calculate the collection fees payable to the debt collection agency and the motorcycle club, given that $120 000 is currently owed by accounts receivable.

c Consider the alternatives available to King, and take into account the social, ethical and financial considerations of your decision. What would you do if you were in King's position? Explain your answer fully.

CHAPTER CHECKLIST

Now that you have finished Chapter 14, double check your progress.

Are you ready for your Unit 4 exam?

I have …

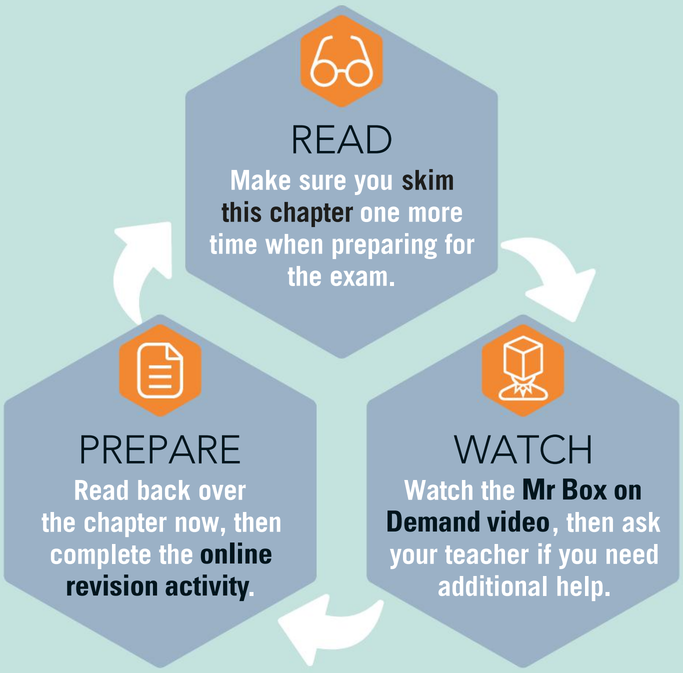
- completed all 'Check Your Understanding' questions
- completed all exercises
- completed all end of chapter activities
- handed in my workbook for marking.

I understand …

- the creation of an allowance for doubtful debts using the Income Statement approach
- the writing off of bad debts using the allowance method in the subsequent period
- characteristics and use of classified accounting reports:
  - Income Statement
  - Balance Sheet.

I can …

- use correct accounting terminology
- identify and record financial data and report accounting information
- manually record transactions in the General Journal and General Ledger and prepare accounting reports
- use ICT, including spreadsheets, to record transactions, prepare accounting reports and construct graphical representations.



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15 STRAIGHT-LINE DEPRECIATION

Every trading business uses non current assets (e.g. vehicles or furniture) that are under its control for more than 12 months. These assets become less effective or useful over time.

In this chapter you will learn about depreciation and how it is calculated and applied. You will also prepare journal entries to record depreciation of non current assets.

LEARNING OBJECTIVES

By the end of this chapter, you will be able to:

- define 'depreciation' [15.1]
- explain how depreciation complies with the period and accrual accounting assumptions [15.1]
- explain the meaning of the term 'cost' as it applies to non current assets [15.1]
- calculate depreciation expense under the straight line method [15.2]
- prepare a general journal entry to record the balance day adjustment for depreciation [15.3]
- prepare a general journal entry to close Depreciation expense accounts to the Profit and Loss Summary account [15.3]
- explain the function of the Depreciation account and the Accumulated Depreciation account [15.3]
- describe the effect that depreciation has on an income statement and a balance sheet [15.4].

UNIT 4 – PROGRESS 14 15 16 17 18 19 20 21 22 23

15.1 The meaning of depreciation

15.2 The straight-line method of depreciation

15.3 The adjusting entry for depreciation

15.4 Depreciation and the balance sheet

Chapter review and exercises

15.1 THE MEANING OF DEPRECIATION

An asset's effectiveness gradually diminishes. At the end of its useful working life it may be scrapped, sold or traded in on a newer model. Because an asset suffers wear and tear from being used, and may have become obsolete by the time it's disposed of, it's unlikely to return its original purchase price to the owner.

depreciation
allocation of the cost of a non-current asset over its life

Depreciation is the allocation of the cost of a non current asset over its effective working life. Non current assets are those assets expected to be under the control of a business for more than 12 months for the purpose of earning revenue. Depreciation spreads the cost of an asset over the period of time it's used to generate revenue.

The purpose of depreciation is to allocate as an expense the difference between the original cost of the asset and the amount it's likely to achieve at the end of its effective working life. This process may take several years, since only a portion of the cost is allocated during each year of the asset's life.

In compliance with the *period assumption*, the life of a business is divided into time periods. Revenue earned for a period is matched against the expenses incurred in that same period, so that an accurate profit can be determined. Non current assets are used to generate revenue, but they also create some expenses for a business (e.g. repairs, registration and insurance). In order to determine an accurate profit figure for any given period, all relevant expenses should be included.

depreciation expense
the amount of depreciation written off as an expense for one particular period

Depreciation expense is created to account for a portion of the cost of an asset in each reporting period. In this way, the revenue earned by an asset is considered in the same period as depreciation expense is recognised. This ensures that the profit recognised under accrual accounting is reasonably accurate.

Depreciation involves allocating the cost of an asset, such as a vehicle, over multiple periods.

THE COST OF AN ASSET

There are two elements to identify when measuring the cost of a non current asset:

- the purchase price of the asset
- all other costs incurred to get the asset into a revenue earning capacity.

Faithful representation requires that the information presented in relation to a non current asset is complete and without bias. *Relevance* requires that all information that can affect managers' decision making be reported.

The purchase price of a non current asset can usually be *verified* by documentary evidence such as an invoice, an EFT transaction or a written contract. However, the other costs relating to the purchase of an asset aren't always easy to identify. Sometimes a business has to pay for one off expenses, such as the delivery or installation of an asset, before it's ready to earn revenue. In this case, the delivery and installation costs become part of the actual asset and the *total amount* is considered for depreciation.

The following examples illustrate this situation.

EXAMPLE 15.1

A business buys a new vehicle for $20 000 cash and pays the items listed in the table below.

Government stamp duty	$1000
Dealer's charges	$500
Insurance and registration	$800 per annum

The cost of the vehicle consists of the purchase price of $20 000, plus the stamp duty of $1000 and the dealer's charge of $500: a total of $21 500.

All of these items become part of the cost of the vehicle because they must be paid in order to get the vehicle in a position to earn revenue. Once these items have been paid, they don't occur again – proof that they are related to the actual purchase of the asset.

However, the insurance and registration cost is a different matter. This amount isn't included in the cost of the vehicle, because it isn't paid to get the asset into a revenue-earning capacity. Furthermore, it's payable every year if the business owner chooses to renew the insurance policy and registration. Therefore, it's seen as a separate expense item.

EXAMPLE 15.2

A business buys a new computer for $10 000 and pays for the items listed in the table below.

Installation	$2000
Service contract	$200 per annum

In this example the cost of the computer is $12 000. The installation cost must be paid in order to get the asset into a revenue-earning capacity, so it becomes part of the cost of the asset.

The service contract doesn't have to be paid before the asset is usable. It's payable each year, and it's the choice of management as to whether or not it should be continued.

15.1 CHECK YOUR UNDERSTANDING

WB PAGE 263

1 What is depreciation?
2 Explain how depreciation is part of accrual accounting and complies with the period assumption.
3 Depreciation is based on the cost of an asset. Outline the items that should be included in this definition of 'cost'.

15.2 THE STRAIGHT-LINE METHOD OF DEPRECIATION

There are several different ways of calculating depreciation but the VCE course only requires you to have a knowledge of two methods. The first of these is known as the straight line depreciation method, which is the simplest. The second is the reducing balance method, which you'll learn about in chapter 16.

straight-line method
a method of depreciation that allocates the same amount of depreciation every reporting period, regardless of the age of the asset

The **straight-line method** of depreciation allocates the same amount of an asset's cost each period. It's also called the fixed instalment method because the amount of depreciation is fixed, regardless of whether the asset is in its first or final year of use.

Consider the details in the table below, which relate to a vehicle bought by Faulkner's Fine Foods on 1 July 2023.

Purchase price of van	$32 000
Estimated useful life	4 years
Estimated residual (scrap) value	$12 800

The formula to calculate depreciation under the straight line method is:

$$\text{Depreciation per annum} = \frac{\text{Cost} - \text{Residual value}}{\text{Useful life}}$$

In the example of Faulkner's Fine Foods, the equation becomes:

$$\begin{aligned}\text{Depreciation per annum} &= \frac{(\$32\ 000 - \$12\ 800)}{4} \\ &= \frac{\$19\ 200}{4} \\ &= \$4800\end{aligned}$$

This calculation indicates that $4800 of the cost of the vehicle will be written off as depreciation in each of the four years the van is used in the business. Over the four years a total of $19 200 will be written off, leaving only the expected 'scrap value' of $12 800 (i.e. $32 000 $19 200 = $12 800).

The depreciation expense can also be expressed as a percentage rate per annum. In this case, the depreciation rate is calculated as follows:

$$\frac{\text{Depreciation per annum}}{\text{Cost of the asset}} = \frac{\$4800}{\$32\ 000} = 0.15 \text{ or } 15\%$$

This percentage rate indicates that 15% of the cost of the asset will be written off each year throughout its expected life.

15.2 CHECK YOUR UNDERSTANDING

WB PAGE 264

1 What does the term 'scrap value' mean? Why is it important when calculating depreciation of an asset?
2 Explain what is meant by the straight-line method of depreciation.
3 A business bought an asset for $10 000 on 1 July 2023 and it is to be depreciated by 15% on cost per annum. If the accounting period ends on 31 December, how much depreciation should be written off for the 6 months ended 31 December 2023? Justify your answer fully.

15.3 THE ADJUSTING ENTRY FOR DEPRECIATION

Depreciation is usually allocated on the last day of each period, and is therefore called a balance day adjustment. (Balance day adjustments are covered in detail in Chapter 18.) Each period, an adjusting entry is required to introduce the amount of depreciation to be written off.

Looking back to Faulkner's Fine Foods, the vehicle was purchased on 1 July 2022. If the reporting period ends on 30 June each year, the first adjusting entry to record the depreciation of the van is shown in Figure 15.1.

FIGURE 15.1 General journal entry to record depreciation

GENERAL JOURNAL

Date	Details	Dr	Cr
30 Jun	Depreciation of vehicle	4 800	
	Accumulated depreciation of vehicle		4 800
	Adjustment for depreciation of vehicle at 15% p.a. straight-line method (Memo 56)		

The debit entry to the Depreciation of Vehicle account is required because depreciation is an expense item. Therefore, the above entry increases the expense account for depreciation.

The credit entry to Accumulated Depreciation of Vehicle is an increase in a negative asset account. As its name suggests, the **accumulated depreciation** account is used to accumulate or add up the total depreciation written off an asset so far. It's known as a negative asset account, because it's deducted from the related asset account (i.e. Vehicle) in the balance sheet.

accumulated depreciation the total amount of depreciation that has been written off from the date the asset came under the control of the business until the present time

When posted to the general ledger accounts, this journal entry results in the entries shown below.

Depreciation of vehicle

2023		$			$
30 Jun	Accumulated dep'n of vehicle	4800			

Accumulated depreciation of vehicle

		$	2023		$
			30 Jun	Depreciation of vehicle	4800

As the Depreciation of Vehicle account is an expense, it's closed off to the Profit and Loss Summary account on balance day along with all other expenses.

Using this data, the related closing entry would be recorded in the general journal as shown in Figure 15.2.

FIGURE 15.2 General journal entry to close a depreciation account

GENERAL JOURNAL

Date	Details	Dr	Cr
30 Jun	P&L summary	4 800	
	Depreciation of vehicle		4 800
	Closing entry		

When the closing entry is posted to the general ledger, the accounts appear as follows.

Depreciation of vehicle

2023		$	2023		$
30 Jun	Accumulated dep'n of vehicle	4800	30 Jun	P&L summary	4800

Accumulated depreciation of vehicle

		$	2023		$
			30 Jun	Depreciation of vehicle	4800

Note that the Depreciation and Accumulated Depreciation accounts are *totally different* in nature. As the Depreciation account is an expense account, it's closed off at the end of each period and returned to a zero balance on balance day. The Accumulated Depreciation account, being a negative asset account, is balanced each period, with the balance carried forward to the following period.

Continuing with this, the accounts have been redrafted to illustrate the ledger entries after two periods have passed.

Depreciation of vehicle

2023		$	2023		$
30 Jun	Accum. dep'n vehicle	4800	30 Jun	P&L summary	4800
2024			2024		
30 Jun	Accum. dep'n vehicle	4800	30 Jun	P&L summary	4800

Accumulated depreciation of vehicle

		$	2023		$
			30 Jun	Depreciation of vehicle	4800
2024			2024		
30 Jun	Balance	9600	30 Jun	Depreciation of vehicle	4800
		9600			9600
			1 Jul	Balance	9600

EXCEPTIONS TO THE DEPRECIATION RULE

Under the straight line method, the amount recorded as depreciation is the same each period. The depreciation expense is closed off to the Profit and Loss Summary account each year. The Accumulated Depreciation account simply adds on the period's depreciation to that amount already depreciated in previous reporting periods. However, there are two circumstances where the amount of depreciation entered on balance day may vary.

The first exception is when the reporting period is less than a year. For example, a business owner may report monthly or quarterly. As straight line depreciation is based on the actual time expired, it's a matter of simply dividing the annual depreciation expense into smaller periods.

For Faulkner's Fine Foods, the vehicle was being depreciated at the rate of $4800 per year. If the reporting period was half a year, the depreciation to be allocated should be half of this amount, so $2400 would be allocated. If the business reported quarterly, only $1200 would be allocated each quarter ($4800/4); for monthly reporting, it would be $400 ($4800/12).

The second complication may be that a business purchases an asset *during* the reporting period, rather than right at the start of the period. Once again, it's simply a case of working out how long the asset has been under the control of the entity, and how much depreciation is relevant to that time period.

In the case of the Faulkner's Fine Foods' van, it was purchased on 1 July and balance day was 30 June, so a full year's depreciation was allocated. However, if the vehicle was purchased on 1 April, only three months would have expired by balance day. Thus, depreciation would only be for three months, or a quarter of the full year's amount.

Therefore, when calculating depreciation, always check two details:

- the length of the reporting period
- how long the asset has actually been under the control of the entity.

Determine the annual depreciation expense, then adjust this amount for either of these two circumstances if necessary.

DON'T!
Do **not** automatically allocate 12 months depreciation every time. Always check when the business purchased the asset and when the reporting period ends.

Check how long an asset has been under the control of the entity before calculating depreciation.

15.3 CHECK YOUR UNDERSTANDING

WB PAGE 264

1. Describe the double entry necessary to record the balance day adjustment for depreciation of a computer of $2000.
2. Explain the closing entry that would result from the adjusting entry in Question **1**.
3. Describe the nature and function of the following general ledger accounts.
   - **a** Depreciation of Equipment
   - **b** Accumulated Depreciation of Equipment

15.4 DEPRECIATION AND THE BALANCE SHEET

Depreciation has a two fold effect on the balance sheet of a business:

- As depreciation is an expense item, it decreases profit and therefore reduces the owner's equity at the end of the period.
- It reduces the amount shown for the asset in the balance sheet on balance day.

Figure 15.3 demonstrates the presentation of the details relating to the vehicle owned by Faulkner's Fine Foods.

FIGURE 15.3 Balance sheet (extract) as at 30 June 2023

Non-current assets	
Vehicle	$32 000
Less: Accumulated depreciation	4 800
	27 200

The three dollar values shown in Figure 15.3 represent the following details:

- The $32 000 is the purchase price of the asset, plus any other costs incurred in getting the asset into a revenue earning capacity, such as stamp duty and dealer's delivery charges. Therefore, the total of $32 000 faithfully represents the cost of the vehicle to the entity. This figure is always shown in the balance sheet as long as the asset is under the control of the business.
- The $4800 shown as accumulated depreciation is the total amount of depreciation allocated from the day the asset was first purchased up until the date of the report. This figure increases each reporting period. Another term used to describe this figure is the **expired cost** of the asset.
- The $27 200 is made up of two components: the value of the asset yet to be depreciated and the estimated residual value of the asset. Popular terms used to describe this amount are 'book value' or '**carrying value**'; carrying value is preferred, as it indicates the cost of the asset still being carried by the business, as distinct from the asset's original cost. It may also be referred to as the written down value or unexpired cost of the asset. As more depreciation is written off over the years, the accumulated depreciation of an asset increases and its carrying value decreases.

expired cost
the value of a non-current asset that has already been written off as depreciation

carrying value
the value of a non-current asset yet to be depreciated (calculated by deducting accumulated depreciation from an asset's historical cost)

Over the useful life of the asset, Faulkner's vehicle would be reported in the balance sheets as follows:

BALANCE SHEETS (EXTRACTS) AS AT 30 JUNE

	2023	2024	2025	2026
Non-current assets	$	$	$	$
Vehicle	32 000	32 000	32 000	32 000
Less: Accumulated depreciation	4 800	9 600	14 400	19 200
	27 200	22 400	17 600	12 800

Note that the original cost of the vehicle is reported in each balance sheet throughout the asset's life. Rather than adjust the cost price of the asset, the accumulated depreciation increases by the amount of depreciation charged each year ($4800). This causes a corresponding decrease in the carrying value of the asset as each year passes.

DEPRECIATION AND THE INCOME STATEMENT

As depreciation is an expense item, it's closed off to the Profit and Loss Summary account in the general ledger. It's also reported in the income statement when final reports are being prepared. As depreciation is an expense, it's clearly a *relevant* item in relation to the demand for an accurate profit being determined for the period.

However, there is also the demand for all information to be *verifiable* information should be supported by evidence. This creates the possibility of a conflict between these two qualitative characteristics. As depreciation is based on two estimates (an estimate is made for both **residual value** and **useful life**), the amount written off each year may be questionable, as it cannot be verified by documentary evidence. However, this is usually considered acceptable, because it's outweighed by the demand that all relevant expenses be included in the income statement.

While it's often difficult to predict future residual values after years of use, it's better to have an estimated amount written off as depreciation, rather than not include depreciation in the income statement at all. The demands of relevance outweigh the concern of not being able to satisfy verifiability.

residual value
the amount an asset is expected to realise at the end of its useful life when it is sold, traded in or scrapped

useful life
the period of time that a business expects to use a non-current asset for the purpose of earning revenue

An asset will have residual value when it is sold, traded in or scrapped.

EXAM SUCCESS
Always remember, depreciation is based on estimates, so it can never satisfy verifiability. However, it is highly relevant to the income statement as it helps determine an accurate profit.

15.4 CHECK YOUR UNDERSTANDING

WB PAGE 265

1 Explain what the 'carrying value' of an asset is.
2 Describe the two-fold effect that depreciation has on the accounting reports of a business.
3 The information below was extracted from a balance sheet.

Vehicle	$45 000	
Less: Accumulated depreciation	$14 000	$31 000

Explain what each of the following dollar values represents in the above extract.
a $45 000
b $14 000
c $31 000

4 Explain how the allocation of depreciation causes a conflict between the demands of two qualitative characteristics of accounting – *relevance* and *verifiability*.

15 CHAPTER REVIEW

KEY CONTENT

- [15.1] Depreciation is the allocation of the cost of a non current asset over its effective working life. The cost is spread over the period of time the asset is used to generate revenue.
- [15.1] Depreciation follows the period assumption, as the life of a business is divided into periods of time, and the asset's value is spread across those periods. It also follows the accrual accounting assumption, in that the depreciation incurred for a period is matched against the revenue earned in that same period.
- [15.1] The cost measured for a non current asset includes both the asset's purchase price and all other costs incurred in getting the asset into a revenue earning position.
- [15.2] The straight line method of depreciation allocates the same amount of an asset's cost each period. It is also called the fixed instalment method because the amount of depreciation is fixed, regardless of whether the asset is in its first or final year of use.
- [15.3] Depreciation is recorded in the Depreciation account as an expense. It's closed off to the Profit and Loss Summary account on balance day.
- [15.3] The Accumulated Depreciation account is used to accumulate or add up the total depreciation written off an asset so far. As a negative asset account, it's balanced each period, with the balance carried forward to the following period.
- [15.4] As depreciation is an expense item, it decreases profit and owner's equity at the end of the period. The effect on balance day is to reduce the amount shown for the asset in the balance sheet. The expense is also reported in the income statement when final reports are prepared.

CHAPTER 15 EXERCISES

SPREADSHEET

1 Calculating depreciation

WB PAGE 266

Ben Wilson is the owner of Wilson's Wheels, a small business that specialises in tyres and alloy wheels. On 1 July 2023 he purchases a photocopier for his business office at a cost of $15 000. The manufacturer also charges Wilson $1000 for installing and setting up the machine. The accounting period for Wilson's Wheels ends on 31 December each year. Wilson estimates that the photocopier will have a useful life of about three years, after which he expects to sell it for approximately $4000.

a Calculate the depreciation expense to be charged per annum under the straight line method of depreciation.

b How much depreciation expense would be written off for the years ended 31 December 2023, 2024 and 2025?

c Prepare balance sheet extracts to show how the photocopier would be reported as at 31 December 2023, 2024 and 2025.

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2 Determining the cost of a non-current asset

WB PAGE 267 SPREADSHEET

Collingwood Cactus World purchases a new computer system on 1 April 2023. The following information relates to this computer:

Purchase price	$4920
Maintenance contract	$120 per annum
Insurance	$50 per annum
Installation	$80

The owner estimates that she will use the computer in the business for three years and then sell it for about $1100.

- **a** Calculate the total cost of the asset that should be considered for depreciation.
- **b** In your answer to part **a**, did you exclude any items from the list of payments stated above? If so, explain how you would treat these items in the accounting reports of the business.
- **c** Using the straight line method of depreciation, calculate the depreciation expense per annum.
- **d** Express the depreciation per annum as a percentage of the cost of the asset.
- **e** Prepare the adjusting entry for depreciation in the general journal on 31 March 2024.

3 Journal entries for depreciation

WB PAGE 268 SPREADSHEET

Footscray Fireplaces purchases a new delivery van on 1 June 2023 for $19 000. Dealer's charges and stamp duty totalling $2000 are also paid, along with registration and insurance of $900 for 12 months' cover. The estimated useful life of the van is four years and its estimated residual value is $6600.

- **a** Calculate the annual depreciation expense to be written off under the straight line method.
- **b** Prepare the general journal entry to record the depreciation expense on the balance days of 30 June 2023 and 30 June 2024.
- **c** Prepare the closing entries relevant to depreciation on 30 June 2023 and 2024.
- **d** Post the entries prepared in parts **b** and **c** to the relevant general ledger accounts.
- **e** Prepare an extract of the balance sheet to show the reporting of the delivery van as at 30 June 2023 and 2024.

4 Journal entries for depreciation

WB PAGE 270 SPREADSHEET

Rex Payne is the proprietor of Terrarium Rex, a store selling terrariums and associated gear. On 1 July 2023 he purchases new shop fittings for $12 000 cash. He decides to depreciate the fittings at 20% per annum, using the straight line method. The books of the business are closed on 31 December each year.

- **a** Prepare the necessary adjusting and closing entries for depreciation of the shop fittings for the years ended 31 December 2023, 2024 and 2025.
- **b** Prepare the following general ledger accounts for the period 1 July 2023 to 31 December 2025.
  - **i** Shop Fittings
  - **ii** Depreciation of Shop Fittings
  - **iii** Accumulated Depreciation of Shop Fittings
- **c** Show how the shop fittings would be shown in the balance sheet as at 31 December 2023, 2024 and 2025.
- **d** Explain how depreciation ties in with the demands of the qualitative characteristic of *relevance*.

SPREADSHEET

5 Ledger accounts for depreciation

WB PAGE 274

Louise Kurkowski is the proprietor of LK's Pinball Tables. On 1 November 2023 she purchases $6520 of new office equipment. The equipment has an expected useful life of four years, after which it will be sold. The anticipated residual value is $2200. The business closes its books on 30 June each year.

- **a** Using the straight line method of depreciation, calculate the annual depreciation expense.
- **b** What is the expense for depreciation of office equipment for the year ended 30 June 2024?
- **c** Prepare the following general ledger accounts for the period 1 November 2023 to 30 June 2025.
  - **i** Office Equipment
  - **ii** Depreciation of Office Equipment
  - **iii** Accumulated Depreciation of Office Equipment
- **d** Show how the asset Office equipment would be reported in the business's balance sheet on 30 June 2024, 2025 and 2026.

SPREADSHEET

6 Depreciations and reports

WB PAGE 276

Bellarine Bedding purchases a new delivery van on 1 April 2023 for $18 600. To improve the van's handling on dirt roads, an improved suspension system is installed as a permanent fixture in the vehicle. The suspension system and its installation cost a total of $2400. The business uses the straight line method to depreciate its assets. It plans to use the van for three years and then trade it in on a newer model. The anticipated trade in allowance is expected to be approximately $6000.

- **a** Explain, and justify, how you would treat the cost of $2400 for the suspension system.
- **b** Calculate the annual depreciation expense of the delivery van.
- **c** In relation to the van, how much depreciation expense should appear in the income statement for the year ended 30 June 2023?
- **d** Prepare the required adjusting and closing entries for the depreciation of the van for the years ended 30 June 2023, 2024 and 2025.
- **e** Prepare extracts of the business's balance sheet to show how the delivery van would be reported as at 30 June 2023, 2024 and 2025.

SPREADSHEET

7 Interpreting depreciation entries

WB PAGE 277

Tom Smyth is the owner of Gippsland Salami Merchants. He uses the straight line method of depreciation and has provided the following accounts from his general ledger:

Vehicle

		$			
1/3/23	Cash at bank	42 000			

Depreciation of vehicle

		$			$
30/6/23	Accum. dep'n vehicle	2 240	30/6/23	P&L summary	2 240

Accumulated depreciation of vehicle

		$			$
			30/6/23	Dep'n of vehicle	2 240

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a What is the annual depreciation expense being allocated from the cost of this vehicle?

b What percentage of the asset's cost is being written off per annum?

c What will be the balance of accumulated depreciation on 30 June 2025?

d Prepare balance sheet extracts to show how the vehicle would be reported as at 30 June 2024, 2025 and 2026.

e Smyth plans on using the vehicle in his business for four years. What was his original estimate of the vehicle's scrap value?

8 Interpreting depreciation entries

WB PAGE 278

The following information is extracted from the books of Fanboy Frenzy Collectables.

GENERAL LEDGER

Shop fittings

		$			
1/7/22	Cash at bank	16000			

Depreciation of shop fittings

		$			$
31/12/22	Accum. dep'n of shop fittings	1400	31/12/22	P&L summary	1400
31/12/23	Accum. dep'n of shop fittings	2800	31/12/23	P&L summary	2800

Accumulated depreciation of shop fittings

		$			$
			31/12/22	Dep'n of shop fittings	1400
31/12/23	Balance	4200	31/12/23	Dep'n of shop fittings	2800
		4200			4200

a What is the original cost of the shop fittings owned by Fanboy Frenzy?

b What is the annual depreciation expense in relation to the business's shop fittings?

c What percentage of the asset's cost is written off per annum?

d What will be the carrying value of the shop fittings on 31 December 2025?

e If the estimated residual value of the shop fittings is $2000, what is the estimated useful life of the asset?

f On what date does the business plan on disposing of the asset?

g Consider the following: 'Depreciation is based on estimates. It is therefore unreliable, and should not be included in an income statement.' Do you agree with this statement? Your answer should consider the demands of *relevance* and *verifiability*, and refer to financial data provided for Fanboy Frenzy.

SPREADSHEET

CASE STUDY

WB PAGE 280

Bernadette Kirkwood is the owner of Hightail Hammocks, a retail business that specialises in hammocks and outdoor furniture. As the business grew over the years, Kirkwood discovered that free delivery was one way of attracting additional customers. She now delivers most of the goods sold by her business, but new vehicles had to be purchased to keep up with demand.

The following information has been provided in relation to the delivery vehicles. *Note*: it's the business's policy to keep all its vehicles for three years before selling them or trading them in for new vehicles.

- **Vehicle 1:** Purchased on 1 January 2021 for $28 000, plus modifications that cost $1000. The vehicle is insured at a cost of $500, and registration costs $450 each year. Estimated residual value is $9800.
- **Vehicle 2:** Bought as a new vehicle for $32 000 on 28 February 2022. Dealer's delivery fee was $1100. Insurance of $600 and registration of $450 were also paid on 28 February. Predicted scrap value is $11 400.
- **Vehicle 3:** Cost of the new vehicle on 1 September 2023 was $36 400, including 12 months' insurance of $600 and registration of $480. Dealer's delivery fee of $1200 was paid in cash. A GPS tracking and security system was installed in this vehicle as a permanent fixture on 1 September 2023 at a cost of $1460. Expected residual value in three years' time is $19 200.
- **Vehicle 4:** This vehicle was bought as a second hand model for $16 000 on 31 January 2024. Registration was arranged at an annual cost of $480. The vehicle hasn't been insured. Estimated residual value when useful life has expired is about $8400.

a Calculate the amount of depreciation expense that would be shown in the income statements for the years ended 30 June 2023, 2024 and 2025 (show all workings).

b Prepare extracts from the balance sheets as at 30 June 2023, 2024 and 2025, to show how the asset Vehicles would be reported in each of these three years.

c Explain the link (if any) that exists between the qualitative characteristic of verifiability and your calculations for depreciation of vehicles.

d Consider the following statement: 'Depreciation is based on estimates of residual value, not on the cost of an asset.' Do you agree with this statement? Give reasons to justify your answer.

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ETHICAL CONSIDERATIONS

WB PAGE 282

Darryl Cruse is the owner of a landscaping business. He has six vehicles on the road on a regular basis, driving to various jobs around Melbourne. He drives one of the vehicles, with the other five being driven by his employees. As his employees start work at 7 a.m. each day, Cruse lets them use the business vehicles to drive home at the end of the day. This allows his workers to get to jobs quickly each morning, rather than having to report to the head office first.

However, in recent weeks Cruse has noticed a significant increase in his petrol expenses. He suspects that some of his employees are using the business vehicles after hours for personal use. He also noticed a couple of his vehicles parked at a local take away restaurant at 2 p.m. on Friday afternoon.

Acting on his suspicions of inappropriate use of his vehicles, Cruse has asked for quotes to install GPS tracking devices in all his vehicles. This will allow him to determine when the vehicles are being used and where they have been. He will be able to do so 24 hours a day, thus keeping a watchful eye on his employees.

A simpler solution might be to instruct all five workers to return the vehicles to head office every day once their jobs are completed. This may save some petrol, but it could cost valuable time, which is a concern.

What would you do if you were asked to provide advice to Cruse? Discuss fully, with reference to the following ethical issues:

- Should Cruse install GPS tracking in his vehicles?
- Would this represent an invasion of the privacy of his employees?
- Should he inform his employees, or simply go ahead with the installation? After all, the vehicles are owned by his business.
- What other alternatives may be appropriate in this situation?

CHAPTER CHECKLIST

Now that you have finished Chapter 15, double check your progress.

Are you ready for your Unit 4 exam?

I have …

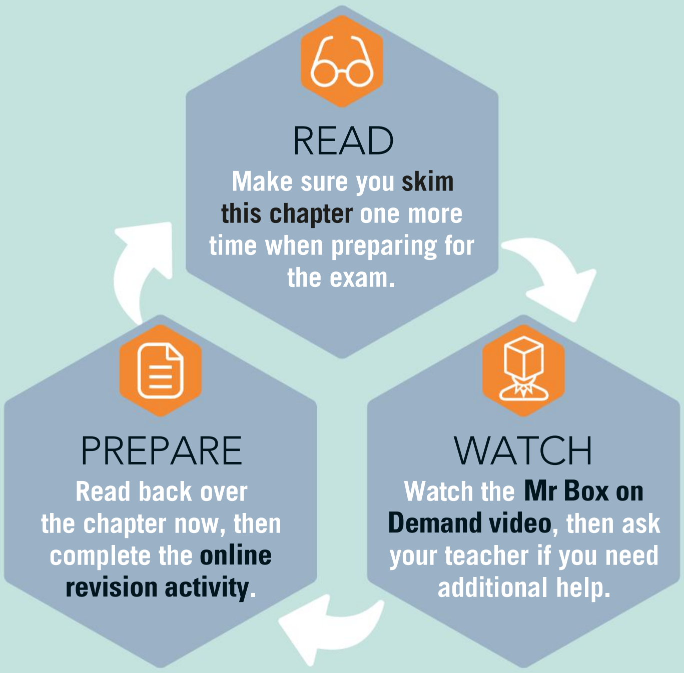
- completed all 'Check Your Understanding' questions
- completed all exercises
- completed the end of chapter activities
- handed in my workbook for marking.

I understand …

- accounting assumptions and qualitative characteristics as applicable
- methods of depreciation: straight line
- ethical considerations in relation to business decision making and the recording and reporting of financial information.

I can …

- explain and apply relevant qualitative characteristics and accounting assumptions
- apply theoretical knowledge to simulated situations.



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16 THE REDUCING BALANCE METHOD OF DEPRECIATION

In Chapter 15 you learnt about the concept of depreciation, and how to use the straight line method to allocate an asset's cost over time. But some assets earn more revenue in their early years. For these assets the reducing balance method of depreciation is more suitable than the straight line method.

In this chapter you will learn about the reducing balance method and how it's calculated and applied.

LEARNING OBJECTIVES

By the end of this chapter, you will be able to:

- describe the reducing balance method of depreciation [16.1]
- explain why the reducing balance method of depreciation may be used for some assets [16.1]
- compare the straight line and reducing balance methods [16.2]
- prepare a graph showing the differences between the two methods [16.2]
- explain the effect that a change in depreciation method may have on accounting reports [16.2]
- justify depreciation methods for a variety of assets [16.3]
- explain the role played by accounting assumptions and the qualitative characteristics of accounting in relation to changing depreciation methods [16.3].

UNIT 4 – PROGRESS 14 – 15 – 16 ··· 17 ··· 18 ··· 19 ··· 20 ··· 21 ··· 22 ··· 23

16.1 The reducing balance method of depreciation

16.2 Comparing depreciation methods

16.3 Choosing a depreciation method

Chapter review and exercises

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16.1 THE REDUCING BALANCE METHOD OF DEPRECIATION

Depreciation is the allocation of a cost of a non current asset over its useful working life. The allocation of depreciation as an expense is in line with the demands of both *relevance* and the *period assumption*, as it helps to determine an accurate profit by matching all revenues earned with all expenses incurred. Depreciation is an expense that should be matched against the revenue actually produced by the asset being depreciated.

THE NEED FOR AN ALTERNATIVE METHOD

Some assets earn a constant amount of revenue throughout their lives, regardless of their age. Shop fittings, display equipment and office furniture are all similar assets in terms of producing revenue. Such assets are just as efficient in helping a business earn revenue in the first year as they will be in the last year of their useful lives.

Other assets tend to be more efficient when they are new and therefore produce most of their revenue in their first years of use. Their efficiency in producing revenue decreases as they get older. For example, the more that a drill press is used, the more likely it is to break down and to spend time being repaired. This means it's less likely to earn as much revenue for the business as when it was first purchased.

It's logical, therefore, to allocate less depreciation when the asset is likely to be producing less revenue for the business. This is in line with the demands of accrual accounting, as it strives to determine an accurate profit for the current period. As a general rule, when an asset is likely to generate more revenue, it should have more of its cost allocated as an expense. When its revenue earning capacity diminishes, so should the amount of depreciation being written off as an expense. To represent this, accountants use the **reducing balance method** of depreciation.

reducing balance method
a method of depreciation that allocates more depreciation in the early years of an asset's life, and less depreciation in its later years

CALCULATING REDUCING BALANCE DEPRECIATION

When an asset has a constant revenue earning capacity over its useful life, the amount of depreciation being allocated should also be constant. The straight line method of depreciation follows this principle.

EXAMPLE 16.1

Segway Solutions purchases a delivery vehicle on 1 July 2023 and provides the following details.

Purchase price of van	$32 000
Estimated useful life	4 years
Estimated residual (scrap) value	$12 800

The calculation of depreciation expense under the straight-line method is

$$\frac{(32\ 000 - \$12\ 800)}{4} = \$4800 \text{ per annum}$$

The percentage rate of depreciation is $\frac{\$4800}{\$32\ 000} = \$15\%$ per annum

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As discussed on the previous page, though, some assets' revenue earning capacity changes over time, so a fixed rate of depreciation may not be the most appropriate method. In line with the *period assumption* and, to comply with *relevance*, it's important that revenue earned in a particular period is matched with the expenses incurred over that same time period. If an asset earns more revenue in a particular year, it's logical to allocate a greater amount of depreciation in that year.

The reducing balance method of depreciation (also known as the diminishing balance method) follows the general principle that an asset produces more revenue in its early life and less in its later years. If an asset is expected to earn more in a particular period, *relevance* demands that more depreciation should be allocated.

The formula to calculate the depreciation expense under the reducing balance method is:

$$\text{Depreciation percentage rate} = 100\left(1 - \sqrt[n]{\frac{s}{c}}\right)$$

where n = estimated useful life (expressed as a number of years)
s = estimated scrap value (or residual value)
c = the cost of the asset

VCE Accounting students are not required to use this formula to determine the exact rate. Usually, it is simply calculated at 1.5 times the rate used under the straight line method.

EXAMPLE 16.2

As seen in Example 16.1, Segway Solutions purchases a delivery vehicle on 1 July 2023 with the details below.

Purchase price of van	$32 000
Estimated useful life	4 years
Estimated residual (scrap) value	$12 800

Since the vehicle will become less efficient over time, it's more appropriate to calculate depreciation using the reducing balance method.

Putting the details of the vehicle into the formula for the reducing balance method gives the following result:

$$\begin{aligned}\text{Depreciation percentage rate} &= 100\left(1 - \sqrt[4]{\frac{12\,800}{32\,300}}\right)\\ &= 100\left(1 - \sqrt[4]{0.4}\right)\\ &= 100\left(1 - 0.7953\right)\\ &= 20.47\%\end{aligned}$$

APPLYING THE DEPRECIATION RATE

Once the percentage rate of depreciation has been calculated, it is applied to the **carrying value** of the asset at the end of each period.

carrying value (or book value) historical cost of an asset less accumulated depreciation

You can see that the reducing balance method doesn't use the residual value (scrap value) of an asset in the yearly calculation of depreciation. The residual value is considered in the formula to determine the annual percentage rate, but then the rate is simply applied to the reducing carrying value of the asset over its useful life.

This is very different from the calculation of annual depreciation under the straight line method, where the residual value is a vital factor in determining the expense to be allocated that is, (cost residual value)/useful life.

Table 16.1 shows the depreciation calculation for each year under the reducing balance method.

TABLE 16.1 Calculation of depreciation using the reducing balance method*

Year ended	Depreciation expense	Accumulated depreciation	Carrying value
30/6/24	20.47% of $32 000 = $6550	$6550	$32 000 – $6550 = $25 450
30/6/25	20.47% of $25 450 = $5210	$6550 + $5210 = $11 760	$32 000 – $11 760 = $20 240
30/6/26	20.47% of $20 240 = $4143	$11 760 + $4143 = $15 903	$32 000 – $15 903 = $16 097
30/6/27	20.47% of $16 097 = $3297	$15 903 + $3297 = $19 200	$32 000 – $19 200 = $12 800

* adjusted to eliminate rounding off errors

The depreciation rate used under the reducing balance method is a fixed percentage each year. However, the amount of depreciation expense each year still decreases, because the percentage rate is applied to the carrying value of the asset. As the asset's carrying value decreases, so does the depreciation expense in each of the following years.

Table 16.1 highlights how the reducing balance method allocates more depreciation expense in the earlier years of an asset's life. The calculations made earlier under the straight line method determined a rate of $4800 per annum for the same vehicle. Under the reducing balance method, depreciation was greater than $4800 in the first two years and then lower than $4800 in the last two years.

There are two further points to keep in mind when calculating depreciation expense:

- When calculating the depreciation rate under the reducing balance method, an approximation is often used of 1.5 times the rate used under the straight line method. In the example of Segway Solutions, the rate under the straight line method was 15% per annum, which provides a rate of 22.5% (15% × 1.5) for the reducing balance method. According to the formula, the actual rate was found to be 20.47%, which shows how accurate (or inaccurate) the approximation method can be.
- The qualitative characteristic of relevance demands that all important information be reported, but it also allows for insignificant values to be omitted from accounting reports. Therefore, it's common practice to omit cents in financial reports.

Remember, depreciation is based on estimates of useful life and residual value, so it isn't expected to be exact. These approximations and omissions are usually considered acceptable.

16.1 CHECK YOUR UNDERSTANDING

WB PAGE 284

1 Outline the features of the straight-line method of depreciation.
2 Explain the workings of the reducing balance method of depreciation.
3 Outline the differences in cost allocation between the straight-line and reducing balance methods of depreciation.
4 On what basis should a depreciation method be selected? Explain your answer fully.
5 Explain the link between depreciation methods and the period assumption.
6 Explain the link between depreciation methods and the qualitative characteristic of relevance.

16.2 COMPARING DEPRECIATION METHODS

The following table, prepared for the vehicle owned by Segway Solutions, highlights the differences between the two methods of depreciation.

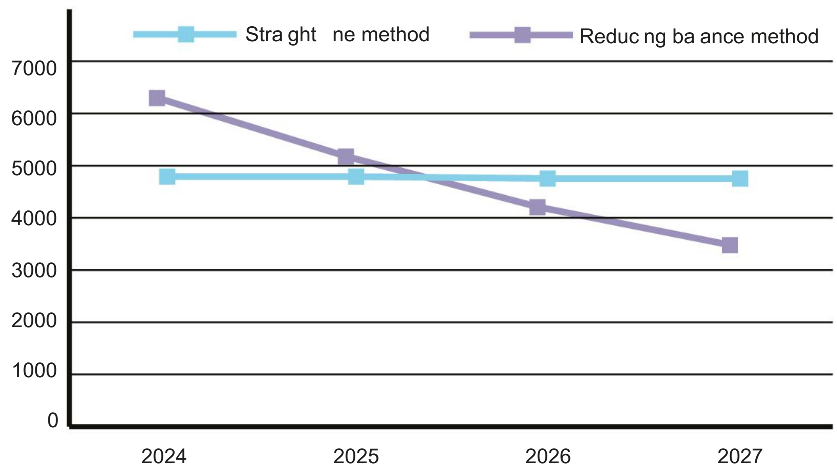
Year	Straight-line method	Reducing balance method
2024	$4 800	$6 550
2025	$4 800	$5 210
2026	$4 800	$4 143
2027	$4 800	$3 297
Total	$19 200	$19 200

As you can see, the total amount of depreciation allocated over the life of the asset is *exactly the same* under both methods.

The straight line method allocates a fixed amount of depreciation each year, while the reducing balance method allocates more in the early years and less in the later years. However, over the life of the asset, both methods allocate the same amount of cost and end up with the original estimate of residual value as the carrying value of the asset after its four year life.

The graph in Figure 16.1 based on the above data, clearly shows the differences in cost allocation between the two depreciation methods. As the years pass, the amount of depreciation allocated under the reducing balance method decreases. Depreciation under the straight line method will be at a constant rate throughout the asset's life. This fundamental difference will always exist between these two methods of depreciation, regardless of the type of asset involved and its estimated useful life.

FIGURE 16.1 Graph showing both straight-line and reducing balance methods



Remember, the only difference between the two depreciation methods is the amount of cost to be allocated in a particular period. The amount of depreciation, once determined, is recorded by exactly the same general journal entry on balance day. Only the amount will vary, depending on the method chosen.

The general journal entries in Figures 16.2 and 16.3 allow a comparison of the two methods over the life of the Segway Solutions vehicle. (The narration for each entry specifies the depreciation method used.)

FIGURE 16.2 General journal entries: straight-line depreciation

GENERAL JOURNAL

Date	Details	Dr	Cr
30/6/24	Depreciation of vehicle	4 800	
	Accumulated depreciation of vehicle		4 800
	Adjustment for depreciation of vehicle at 15% p.a. straight-line method		
30/6/25	Depreciation of vehicle	4 800	
	Accumulated depreciation of vehicle		4 800
	Adjustment for depreciation of vehicle at 15% p.a. straight-line method		
30/6/26	Depreciation of vehicle	4 800	
	Accumulated depreciation of vehicle		4 800
	Adjustment for depreciation of vehicle at 15% p.a. straight-line method		
30/6/27	Depreciation of vehicle	4 800	
	Accumulated depreciation of vehicle		4 800
	Adjustment for depreciation of vehicle at 15% p.a. straight-line method		

FIGURE 16.3 General journal entries: reducing balance depreciation

GENERAL JOURNAL

Date	Details	Dr	Cr
30/6/24	Depreciation of vehicle	6 550	
	Accumulated depreciation of vehicle		6 550
	Adjustment for depreciation of vehicle at 20.47% p.a. reducing balance method		
30/6/25	Depreciation of vehicle	5 210	
	Accumulated depreciation of vehicle		5 210
	Adjustment for depreciation of vehicle at 20.47% p.a. reducing balance method		
30/6/26	Depreciation of vehicle	4 143	
	Accumulated depreciation of vehicle		4 143
	Adjustment for depreciation of vehicle at 20.47% p.a. reducing balance method		
30/6/27	Depreciation of vehicle	3 297	
	Accumulated depreciation of vehicle		3 927
	Adjustment for depreciation of vehicle at 20.47% p.a. reducing balance method		

DEPRECIATION IN THE BALANCE SHEET

The presentation of non current assets in a balance sheet is also unaffected by the choice of depreciation method. The cost of each asset is still shown, and accumulated depreciation is deducted from this figure to determine the carrying value on balance day. Once again, the only difference between the two methods is that the amount of accumulated depreciation will change depending on which is used.

The following balance sheet extracts show how Segway Solutions' vehicle would be reported under each of the two methods.

STRAIGHT-LINE METHOD

Balance sheet extracts as at 30 June:	2024	2025	2026	2027
Non-current assets				
Vehicle	32 000	32 000	32 000	32 000
Less: Accumulated depreciation	4 800	9 600	14 400	19 200
	27 200	22 400	17 600	12 800

REDUCING BALANCE METHOD

Balance sheet extracts as at 30 June:	2024	2025	2026	2027
Non-current assets				
Vehicle	32 000	32 000	32 000	32 000
Less: Accumulated depreciation	6 550	11 760	15 903	19 200
	25 450	20 240	16 097	12 800

16.2 CHECK YOUR UNDERSTANDING

WB PAGE 286

1 Compare the general journal entries for depreciation under the straight-line method and the reducing balance method.
2 Describe the types of assets to which the straight-line depreciation method should be applied.
3 Describe the types of assets to which the reducing balance depreciation method should be applied.

16.3 CHOOSING A DEPRECIATION METHOD

Which depreciation method should a business use?

There's no single answer to this question. The appropriate method to select is the one that best satisfies the demands of *relevance* and the *period assumption*.

In order to do this, management needs to identify the revenue earning pattern of the asset.

- If it's expected to earn more revenue in its earlier years than later in its life, then the reducing balance method is most appropriate.
- If the asset usually has the same revenue earning capacity regardless of its age, then the straight line method should be adopted.

EXAM SUCCESS
Always remember: depreciation does not attempt to estimate market value. It is allocated to try to get an accurate assessment of profit.

The choice of depreciation method should always be linked to the nature of the asset being considered. A business that has numerous non current assets may use both methods, since the various assets may have different revenue earning patterns.

The following examples illustrate where one or other method may be more appropriate than the alternative.

Asset	Depreciation method suggested
Shop fittings	Straight-line
Office furniture	Straight-line
Machinery	Reducing balance
Vehicles	Reducing balance

The different methods of depreciation are best suited for different types of asset

Both shop fittings and office furniture are usually just as efficient in their later years as when they are first purchased. Therefore, a fixed amount of depreciation should be allocated using the straight line method.

Assets such as machinery and vehicles are usually more efficient when they are new, so there is a reasonable expectation that they will earn more revenue in these early years. Following the *period assumption*, it's desirable to match this greater amount of revenue with a higher allocation of depreciation expense. Therefore, the reducing balance method will more accurately reflect the revenue earning pattern of the assets.

Once the most appropriate depreciation method is selected, it should be applied consistently over the asset's life in order to meet the qualitative characteristic of *comparability*. (Comparisons are difficult to make if accounting methods are constantly changing over several consecutive periods.)

16.3 CHECK YOUR UNDERSTANDING

WB PAGE 286

1 For each of the following assets, state the depreciation method that you would recommend to allocate costs over their useful lives. Justify your answer for each asset.
   - **a** Computers
   - **b** Sales manager's vehicle
   - **c** Office equipment
   - **d** Machinery
   - **e** Display equipment
   - **f** Forklifts

2 A business owner is advised that she shouldn't change depreciation methods once she commences writing off her assets. Do you agree with this advice? Discuss this issue, with reference to accounting assumptions and the qualitative characteristics of accounting.

16 CHAPTER REVIEW

KEY CONTENT

- **[16.1]** Reducing balance is a method of depreciation that allocates more depreciation in the early years of an asset's life, and less in its later years. It may be used with assets that become less useful or effective over time, such as vehicles.
- **[16.2]** Depreciation under the straight line method is at a constant rate throughout the asset's life. Over the same period, the amount of depreciation allocated under the reducing balance method decreases. The only difference between the straight line and reducing balance methods is the amount of cost to be allocated in a particular period.
- **[16.3]** The depreciation method used should be based on the grounds of best satisfying the demands of relevance and the period assumption.

CHAPTER 16 EXERCISES

1 Depreciation: comparing methods

WB PAGE 288

Kevin Riley's Equestrian Centre purchases office equipment at a cost of $12 000, plus $1200 GST. Kevin is considering whether to use the straight line or the reducing balance method of depreciation. The equipment is expected to be used for four years before it's sold. You have been asked to supply information regarding straight line depreciation at the rate of 20% per annum or reducing balance depreciation at 30% per annum.

Prepare tables as shown below and complete the details for each of these two depreciation methods to assist Kevin with his decision.

Note: this question may be completed using a spreadsheet.

METHOD OF DEPRECIATION: STRAIGHT-LINE

Year	Depreciation	Accumulated depreciation	Carrying value
1			
2			
3			

METHOD OF DEPRECIATION: REDUCING BALANCE

Year	Depreciation	Accumulated depreciation	Carrying value
1			
2			
3			

2 Depreciation: comparing methods

WB PAGE 288

Castlemaine Cladding purchases a new vehicle at a cost of $24 000, plus GST of $2400. The vehicle is expected to be used in the business for five years. Its residual value is estimated to be about $5700.

Note: this question may be completed using a spreadsheet.

a Prepare tables as shown below and complete the details for each of the two depreciation methods. (For the reducing balance method, simply apply depreciation at 25% per annum.)

METHOD OF DEPRECIATION: STRAIGHT-LINE

Year	Depreciation	Accumulated depreciation	Carrying value
1			
2			
3			

METHOD OF DEPRECIATION: REDUCING BALANCE

Year	Depreciation	Accumulated depreciation	Carrying value
1			
2			
3			

b Prepare a line graph to highlight the differences between the two depreciation methods. Using one line for each method, show the depreciation expense each year.

c In what years does the reducing balance method allocate:

- **i** more depreciation than the straight line method?
- **ii** less depreciation than the straight line method?

d Prepare a line graph showing the balance of accumulated depreciation each year under each of the two depreciation methods.

3 Reducing balance depreciation

WB PAGE 289

SPREADSHEET

Five Star Comics & Graphic Novels buys a new photocopier for its office on 1 February 2023 for $14 000, plus GST of $1400. The machine is to be used until it's four years old, after which it's expected to be traded in for a new model. Balance day for the business is 31 July each year. The photocopier is to be depreciated by the reducing balance method at the rate of 20% per annum.

a Calculate the depreciation expense to be allocated on 31 July 2023, 2024 and 2025.

b Prepare the necessary adjusting and closing entries for depreciation of the photocopier for each of the three years.

c Prepare the following general ledger accounts: Photocopier, Depreciation of the Photocopier, and Accumulated Depreciation of the Photocopier.

d Prepare a balance sheet extract to show how the photocopier would be reported as at 31 July 2023, 2024 and 2025.

e Do you think the reducing balance method is appropriate for depreciating a photocopier? Explain your answer fully.

SPREADSHEET

4 Depreciation entries: reducing balance method

WB PAGE 292

Connie Grant is the owner of Warrnambool Wigs & Hair Extensions. On 1 October 2023 she purchases display equipment for $35 200, including GST. She decides to depreciate the equipment at 25% per annum on the reducing balance method. The books of the business are closed on 31 December each year.

- **a** Prepare the necessary adjusting and closing entries for depreciation of the display equipment for the years ended 31 December 2023, 2024 and 2025. (Narrations are not required.)
- **b** Prepare the following general ledger accounts: Display Equipment, Depreciation of Display Equipment, and Accumulated Depreciation of Display Equipment.
- **c** Prepare a balance sheet extract to show how the display equipment would be reported as at 31 December 2023, 2024 and 2025.
- **d** A friend of Corrine's suggests that she should use the straight line method to depreciate the equipment, as it will result in a more consistent profit over the years. Do you agree? Explain your answer.
- **e** Corrine may breach a qualitative characteristic of accounting if she changes depreciation methods. Explain the possible implications of this change, with reference to the relevant qualitative characteristic.

SPREADSHEET

5 Depreciation: comparing methods

WB PAGE 294

Rewind Retro Furnishings is a small business situated in Strathmore, owned and operated by Russell Cosgriff. The business purchases a vehicle on 1 July 2023 for $28 000, plus GST. Cosgriff expects to own the vehicle for about four years. He's unsure whether to depreciate the asset under the straight line method at 20% per annum, or under the reducing balance method at 30% per annum. The business closes its books on 31 December each year.

- **a** Using a spreadsheet, calculate depreciation under the two methods for the years ended 31 December 2023, 2024, 2025 and 2026.
- **b** Explain fully the difference in profit for each of the four years if the vehicle is depreciated using the reducing balance method.
- **c** Which method would you recommend Cosgriff use to depreciate the vehicle? Explain your answer fully, with reference to an accounting principle.

6 Depreciation: comparing methods

WB PAGE 295

Makeup 2 Your Door purchased a vehicle on 1 April 2020 for $24 000, including GST. The owner of the business estimated that the vehicle would have a useful life of five years and then be sold for approximately $9600. The vehicle was depreciated using the straight line method on 31 March 2021 and 2022.

However, the owner has been told that reducing balance depreciation is a more appropriate method for depreciating a vehicle. She calculates that the rate to be charged would be 20% of the asset's carrying value.

- **a** If the straight line method was used again in 2023, what would be the depreciation expense allocated for the year?
- **b** If the vehicle was depreciated using the reducing balance method at 20% per annum, what would be the depreciation expense for the year ended 31 March 2023?
- **c** Explain the effect the change of accounting method would have on the net profit figure reported for the year ended 31 March 2023.
- **d** Do you think the owner should change the method used? Explain your answer fully.

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CASE STUDY

WB PAGE 296 SPREADSHEET

Costa Kriezis is the owner of GET SWOLE!, a business selling bodybuilding and gym equipment. He needs your advice regarding the depreciation of a fleet of delivery vehicles owned by the business, which offers free delivery. The vehicles have just been updated by the business, at a cost of $250 000. This was done in week one of the new period, which runs for 12 months.

The vehicles are estimated to have a useful life of four to five years. Therefore, Costa is considering straight line depreciation at 25% (over a useful life of four years) or 20% (over five years). Residual value isn't allowed for, as the vehicles are constantly being used and he doesn't think this is necessary.

Costa has also heard that if he applies reducing balance depreciation, profit will be lower and he may pay less taxation. He is now also considering using the reducing balance method, at 1.5 times the rate of the straight line method. This would mean that depreciation would be applied at 37.5% per annum (over four years) or 30% over five years.

In each of the past three years, the business has earned a profit, before considering depreciation expense, of $200 000.

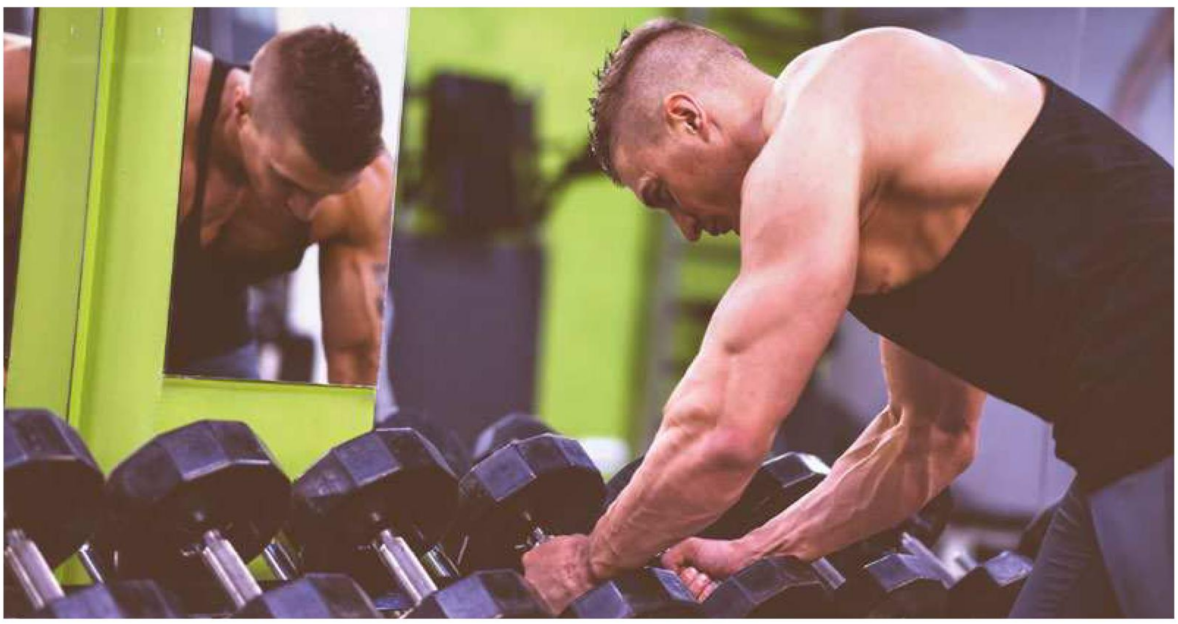
a Prepare a spreadsheet to show Costa the effect on profit over the next four years under each of the four possible alternatives:

- **i** straight line at 25% per annum
- **ii** straight line at 20% per annum
- **iii** reducing balance at 37.5% per annum
- **iv** reducing balance at 30% per annum.

Your spreadsheet should show clearly the depreciation expense for each of the four years and the net profit (after depreciation) for each of the four scenarios.

b With reference to the results shown in your spreadsheet, advise Costa which scenario he should adopt. Your advice should consider the requirements of accrual accounting, faithful representation, relevance and verifiability.

c Costa clearly believes that residual values shouldn't be applied in this case, and that the most important thing is to minimise profit so that less tax is payable. Discuss the ethics of such decision making, taking into consideration the effect on net profit (after depreciation).



CHAPTER CHECKLIST

Now that you have finished Chapter 16, double check your progress.
Are you ready for your Unit 4 exam?

I have ...

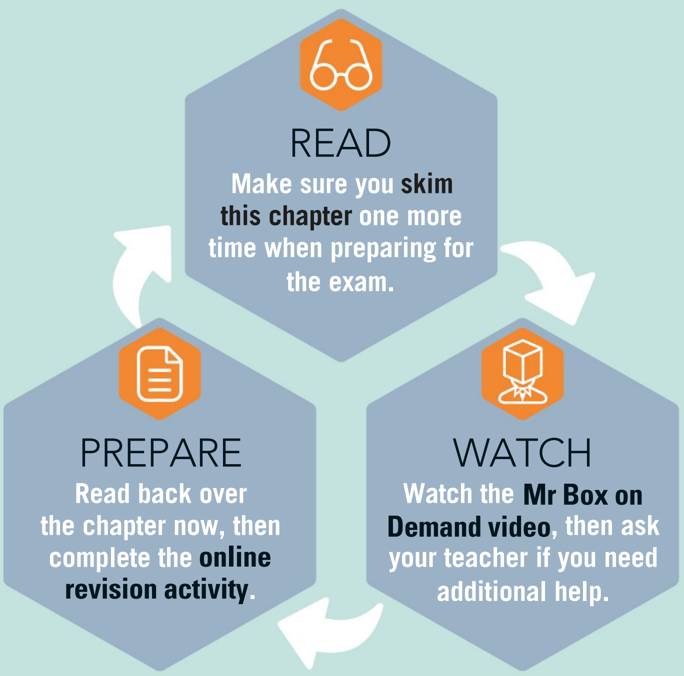
- completed all ‘Check Your Understanding’ questions
- completed all exercises
- completed the end of chapter activities
- handed in my workbook for marking.

I understand ...

- methods of depreciation: straight line and reducing balance
- the implications of alternative methods of depreciation on accounting reports.

I can ...

- use ICT, including spreadsheets, to model and analyse alternative depreciation methods
- compare alternative methods of depreciating non current assets and justify the method selected
- evaluate the effect of alternative methods of depreciating non current assets on accounting reports.



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17 BUYING AND SELLING NON-CURRENT ASSETS

As discussed in Chapters 15 and 16, non current assets are depreciated over time. You should know how to record the purchase of non current assets and how they are recorder when sold, traded in or otherwise disposed of.

In this chapter you will learn how to record purchases and sales of non current assets in the general journal, including determining the profit or loss made on disposal.

LEARNING OBJECTIVES

By the end of this chapter, you will be able to:

- prepare a general journal entry to record a purchase of a non current asset for cash or financed by a loan [17.1]
- record a purchase of a non current asset in the general ledger [17.1]
- prepare general journal entries to record the disposal of a non current asset for cash or as a trade in [17.2]
- calculate a profit or loss on disposal of an asset [17.2]
- prepare a Disposal of Asset account in the general ledger [17.2]
- classify profits and losses on disposal in an income statement [17.3]
- explain how a profit or loss on disposal occurs in relation to the allocation of depreciation [17.3]
- explain how depreciation method affects the profit or loss on disposal of a non current asset [17.3].

UNIT 4 – PROGRESS 14 — 15 — 16 — 17 ··· 18 ··· 19 ··· 20 ··· 21 ··· 22 ··· 23

17.1 Recording the purchases of non-current assets

17.2 Disposal of non-current assets

17.3 Trading in non-current assets

Chapter review and exercises

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17.1 RECORDING THE PURCHASES OF NON-CURRENT ASSETS

When a business purchases a non current asset, there are two basic scenarios to consider. The asset may be purchased for cash (often done for small items such as computers); in the case of larger purchases, a loan may be used to finance the purchase. Trade credit isn't usually used to buy long term assets, as it's unrealistic to pay for large purchases using credit terms of, say, 30 days.

If a non current asset is bought for cash, the entry in the general journal is straightforward, as Figure 17.1 shows.

FIGURE 17.1 General journal entry for the purchase of a non-current asset for cash

GENERAL JOURNAL

Date	Details	Dr	Cr
1 Jul	Laptop computer	2 000	
	GST clearing	200	
	Cash at bank		2 200
	Purchase of computer from Officeworks via EFT		

This journal entry establishes the Laptop Computer ledger account, adjusts the GST Clearing account for the GST paid, and decreases the Cash at Bank account with the total amount of $2200.

RECORDING PURCHASES USING BORROWED FUNDS

The purchase of a non current asset using borrowed funds is a little different. There are actually two transactions taking place. Once the finance has been arranged, the business will receive the amount borrowed. Management can shop around for the best deal and purchase the asset in the usual manner.

Consider the purchase of machinery for $55 000, including $5000 GST. The journal entries shown in Figure 17.2 would be the result of taking out a loan and purchasing the machinery.

FIGURE 17.2 General journal entry for the purchase of a non-current asset using borrowed funds

GENERAL JOURNAL

Date	Details	Dr	Cr
1 Jul	Cash at bank	55 000	
	Loan – NAB Finance		55 000
	Borrowed $55 000 for the purchase of machinery (EFT transfer)		
1 Jul	Machinery	50 000	
	GST clearing	5 000	
	Cash at bank		55 000
	Purchase of machinery from Ace Manufacturing via EFT		

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The double entries in the general ledger when these journal entries are posted are shown below.

Cash at bank

		$			$
1 Jul	Loan – NAB Finance	55 000	1 Jul	Machinery/GST clearing	55 000

Loan – NAB Finance

		$			$
			1 Jul	Cash at bank	55 000

Machinery

		$			$
1 Jul	Cash at bank	50 000			

GST clearing

		$			$
1 Jul	Cash at bank	5 000			

The only difference in the above transaction is that the Cash at Bank account is affected by two entries:

- When the loan is approved and the cash is received, the Cash at Bank account is increased by the debit entry shown.
- When the non current asset is purchased (which could be at a later date), the cash outflow is recorded in the usual manner.

The liability account for the loan has been established and this will now have to be repaid over a specified period of time.

Sometimes the loan amount won't be the same as the purchase price of the asset. If the purchase of the non current asset is funded partly by cash from the business, the amount borrowed will be lower than the amount paid for the asset. This can simply be adjusted in the general journal to reflect the transactions taking place.

17.1 CHECK YOUR UNDERSTANDING

WB PAGE 298

1. State the double entry required when office furniture is purchased for cash from Ace Office Supplies for $2000, plus GST of $200.
2. State the double entries required when $22 000 is borrowed from the United Bank and the cash is used to buy shop fittings for $20 000, plus GST.
3. Describe an advantage and a disadvantage of purchasing non-current assets financed by a loan.

17.2 DISPOSAL OF NON-CURRENT ASSETS

When a business purchases a non current asset, it debits the total cost to an asset account. Then, on every balance day throughout the asset's useful life, it is depreciated using one of two methods of depreciation (see Chapters 15 and 16). The final process in regard to a non current asset is the recording of its disposal.

An asset may be scrapped for no return, be sold for cash, or be traded in on a replacement asset. Regardless of what happens to a non current asset when it's disposed of, it must be removed from the books of the business, as it's no longer under the control of the entity.

The necessary steps to record the disposal of an asset for cash are:

- transfer the cost of the asset to the Disposal of Asset account.
- transfer the accumulated depreciation of the asset to the Disposal of Asset account.
- record the proceeds gained from the sale of the asset in the Disposal of Asset account. That is, record the amount received for the asset, or the amount granted as a trade in.
- close off the Disposal of Asset account by recording the profit or loss on the sale of the asset. This entry will also have the effect of closing off the Disposal of Asset account.

Non-current assets are disposed of at their end of their useful life.

EXAMPLE 17.1

Fanboy Frenzy Collectables purchases a store-wide computer system, with barcode scanners and integrated EFTPOS.

1 July 2023: Purchased the computer system for $10 000 cash
Estimated useful life: 2 years
Estimated scrap value: $4000
Depreciation method: straight-line
30 June 2025: Sold the computer system for $3800 cash.

Therefore, depreciation $= \dfrac{(\$10\,000 - \$4000)}{2} = \$3000$ per annum

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The entries relating to the purchase of the computer system, its depreciation each year and the **loss on disposal of asset** (disposal of the system) on 30 June 2025 are all shown in the following general ledger accounts. (*Note:* this business closes its books on 30 June each year.)

loss on disposal of asset the difference between the carrying value of an asset and the proceeds from the disposal of the asset, where the proceeds are less than the carrying value

GENERAL LEDGER

Computer

		$			$
1/7/23	Cash at bank	10 000	30/6/25	Disposal of computer	10 000

Depreciation of computer

		$			$
30/6/24	Accum. dep'n computer	3 000	30/6/24	P&L summary	3 000
30/6/25	Accum. dep'n computer	3 000	30/6/25	P&L summary	3 000

Accumulated depreciation of computer

		$			$
			30/6/24	Dep'n of computer	3 000
30/6/25	Disposal of computer	6 000	30/6/25	Dep'n of computer	3 000
		6 000			6 000

Disposal of computer

		$			$
30/6/25	Computer	10 000	30/6/25	Accum. dep'n computer	6 000
				Cash at bank	3 800
				Loss on disposal of computer	200
		10 000			10 000

Loss on disposal of computer

		$			$
30/6/25	Disposal of computer	200	30/6/25	P&L summary	200

In Example 17.1, the computer has been sold at the end of its predicted useful life. Its **carrying value** (or **book value**) at this time will equal its estimated scrap value of $4000 ($10 000 $6000). This $4000 represents the economic sacrifice made by the business on 30 June 2025. It can be compared against the actual cash generated by the disposal of the asset.

carrying value (or book value) historical cost of an asset less accumulated depreciation

When the asset was disposed of, the business received $3800; this amount has been recorded on the credit side of the Disposal of Computer account. To close off the Disposal of Computer account, the loss on sale of $200 has been recorded on the credit side. This makes both sides equal, so the Disposal of Computer account is now closed off.

The corresponding debit entry of $200 has been made to the Loss on Disposal of Computer account. This is logical, as the asset was sold for $200 less than its carrying value, which was $4000 at the time it was sold.

LOSS FROM ASSET DISPOSAL

Fanboy Frenzy made a loss on the disposal of their computer system. This occurred either because the depreciation rate was too low over the life of the asset, or because the original estimate of scrap value was too high.

Other reasons for an asset being sold for less than its carrying value include:

- the item is no longer popular, and there isn't much demand in the second hand market.
- an asset may become technologically obsolete. For example, it's difficult to sell second hand computers for much return, as new, advanced models are developed very quickly.
- the asset may be severely marked or damaged from its business use.

It's important to remember that depreciation isn't a valuation tool. Depreciation is allocated in order to match an appropriate amount of depreciation expense against the revenues generated by the asset. It's not recorded in order to make predictions about market value at a particular point in time.

Also, it's unrealistic to expect depreciation to be perfectly accurate, as scrap values are predicted for years in advance in the case of some assets. The entries required on the disposal of an asset simply adjust the firm's books for any **over-** or **under-depreciation** that has occurred over the life of the asset.

over-depreciation a situation where a non-current asset has been depreciated too much due to under-estimation of either its useful life or its residual value, leading to a profit on disposal

under-depreciation a situation where a non-current asset hasn't been depreciated enough due to over-estimation of either its useful life or its residual value, leading to a loss on disposal

Using the above data, the following item would be reported in Fanboy Frenzy's income statement under the heading 'Other expenses'.

Other expenses:

Loss on disposal of computer	$200

This one item provides a neat summary of the events that have taken place. The Computer account has been eliminated, as has the Accumulated Depreciation of Computer account. The proceeds from the sale have been recorded in the Cash at Bank account. The end result of all the transactions is that the business has suffered a loss of $200, and this has been reported as an expense for the reporting period.

PROCEEDS FROM ASSET DISPOSAL

An asset may sometimes be sold for more than its carrying value when it has been depreciated too much. In this case, the firm recovers an amount in excess of its carrying value. The difference between carrying value and the **proceeds from disposal** will simply be reported in the firm's income statement under the heading 'Other revenue'.

proceeds from disposal of asset the amount of cash received, or the trade-in value granted, on the disposal of a non-current asset

For example, if the computer was sold for $4100, this indicates that it was sold for $100 higher than its carrying value. That is, the business has made a profit of $100 on the disposal of the computer. As this $100 hasn't been earned in the ordinary course of business, the profit on disposal of the computer shouldn't be listed in the top section of the report with the firm's sales. Such profits should always be reported separately under the heading of 'Other revenue'.

As is the case with all ledger entries, the transactions must first be recorded in the general journal. The ledger entries shown above for the disposal of the computer system have been prepared in the general journal in Figure 17.3. Note that these entries are based on the original data. That is, the computer was sold for $3800.

FIGURE 17.3 General journal entries for the disposal of a non-current asset

GENERAL JOURNAL

Date	Details	Dr	Cr
30 Jun	Disposal of computer	10 000	
	Computer		10 000
	Transfer of cost of computer sold		
	Accumulated depreciation of computer	6 000	
	Disposal of computer		6 000
	Transfer of accumulated depreciation on computer sold		
	Cash at bank	3 800	
	Disposal of computer		3 800
	Cash received on disposal of computer		
	Loss on disposal of computer	200	
	Disposal of computer		200
	Transfer of loss on disposal of computer		

The totals of the debit entries to the Disposal of Computer account should equal the total credit entries made to that account. That is, the Disposal of Computer account must be closed off once all entries have been completed.

The purpose of the disposal account is two fold:

- It removes all balances in relation to the asset being sold, as it closes off the asset account itself, along with its Accumulated Depreciation of Computer account.
- It also determines the profit or loss made on the disposal, which at the same time closes off the Disposal of Computer account itself.

When completing a Disposal of Asset account, always check that the debits equal the credits and that no balance is left remaining in the account.

17.2 CHECK YOUR UNDERSTANDING

WB PAGE 298

1 State the names of the two ledger accounts that must be closed off to the Disposal of Vehicle account when a vehicle is sold.

2 Explain the circumstances when:

  a a loss is made on the disposal of a non-current asset

  b a profit is made on the disposal of a non-current asset.

3 'A loss on disposal of a non-current asset simply means that too much depreciation has been written off during the asset's life.' Do you agree with this statement? Explain your answer fully.

17.3 TRADING IN NON-CURRENT ASSETS

The journal entries shown above cover the situation where an asset is sold for cash. If an asset is traded in, the entries required will vary slightly.

EXAMPLE 17.2

As before, Fanboy Frenzy Collectables purchased a store-wide computer system.

However, rather than selling it for $3800 at the end of its useful life, it trades it in for $3800 against the cost of a new system. The cost of the new asset is $12 000, and the purchase is financed by a loan from GE Finance Company.

1 July 2023: Purchased the computer system for $10 000 cash
Estimated useful life: 2 years
Estimated scrap value: $4000
Depreciation method: straight-line

30 June 2025: Traded in the computer system for $3800 on a new model financed by a loan from GE Finance of $9400 – total cost $12 000, plus GST of $1200.

$$\text{Depreciation} = \frac{(\$10\,000 - \$4\,000)}{2} = \$3000 \text{ per annum}$$

As the asset was traded in and not sold for cash, the entry shown previously as a cash receipt in the general journal won't exist, as no cash has changed hands. However, the trade in allowance must now be recognised and recorded.

The appropriate entries under this new situation are shown in Figure 17.4.

FIGURE 17.4 General journal entries for the disposal of a non-current asset via a trade-in

GENERAL JOURNAL

Date	Details	Dr	Cr
30 Jun	Disposal of computer	10 000	
	Computer		10 000
	Transfer of cost of computer sold		
	Accumulated depreciation of computer	6 000	
	Disposal of computer		6 000
	Transfer of accumulated depreciation on computer sold		
	Computer	3 800	
	Disposal of computer		3 800
	Trade-in of computer		
	Loss on disposal of computer	200	
	Disposal of computer		200
	Transfer of loss on disposal of computer		

Having recorded the disposal of the computer as a trade in, the purchase of the new computer would be recorded as in the following entry. (Note the amount borrowed to finance the purchase.)

30 Jun	Cash at bank	9 400	[3]
	Loan – GE Finance		9 400
	Borrowed funds to purchase new computer		
	Computer	[1] 8 200	
	GST clearing	[2] 1 200	
	Cash at bank		9 400
	Purchase of computer after trade-in of $3800 allowed.		

- **[1]** Trade in of $3800 has been debited to the Computer account, so amount to be paid in cash is $8200 ($12 000 $3800).
- **[2]** Actual purchase price was $12 000, so GST payable to the supplier is still $1200. If a trade in allowance is granted, this is deducted from the total purchase price.
- **[3]** New computer cost $12 000, plus $1200 GST, so total outlay equals $13 200. As the trade in allowance was $3800, the amount borrowed from the finance company would be $9400 ($13 200 $3800).

The following ledger accounts show the full picture of the disposal of the computer, the trade in on the new computer, the creation of the loan of $9400, and the cash payment for the computer.

GENERAL LEDGER

Computer

		$			$
1/7/23	Cash at bank	10 000	30/6/25	Disposal of computer	10 000
30/6/25	Disposal of computer	3 800			
30/6/25	Cash at bank	8 200			

Depreciation of computer

		$			$
30/6/24	Accum. dep'n computer	3000	30/6/24	P&L summary	3000
30/6/25	Accum. dep'n computer	3000	30/6/25	P&L summary	3000

Accumulated depreciation of computer

		$			$
			30/6/24	Dep'n of computer	3000
30/6/25	Disposal of computer	6000	30/6/25	Dep'n of computer	3000
		6000			6000

Disposal of computer

		$			$
30/6/25	Computer	10 000	30/6/25	Accum. dep'n computer	6000
				Computer	3800
				Loss on disposal of computer	200
		10 000			10 000

Loss on disposal of computer

		$			$
30/6/25	Disposal of computer	200	30/6/25	P&L summary	200

Loan – GE Finance

		$			$
			30/6/25	Cash at bank	9 400

Cash at bank

		$			$
30/6/25	Loan – GE Finance	9 400	30/6/25	Computer	8 200
				GST clearing	1 200

GST clearing

		$			$
30/6/25	Cash at bank	1 200			

EXAM SUCCESS
When an asset is traded-in, cash at bank is not affected. Make sure that the trade-in value is debited to the non-current asset being purchased.

Compare the above entries with those for Example 17.1 (p.326):

- The cost is transferred in exactly the same way.
- The accumulated depreciation on the asset being disposed of is transferred in the same way.
- Rather than an entry being made for a receipt of cash, the trade in allowance results in a debit to the non current asset account, as the trade in value is deducted from the cost price of the new computer being purchased.
- The loss on disposal is recorded in the same way; it closes off the Disposal of Computer account and creates the expense account for the loss on disposal.
- The final general ledger entries record the borrowing of cash from the finance company and the purchase of the new computer (including GST).

CLOSING ENTRIES

The final step when the asset is disposed of is to close off the Loss on Disposal of Computer account to the Profit and Loss Summary account.

As a loss on disposal is an expense item, it will be closed off along with all other expenses and then reported under 'Other expenses' in the income statement. The general journal closing entry is shown in Figure 17.5.

FIGURE 17.5 **Closing entry for a loss on disposal of an asset**

GENERAL JOURNAL

30 Jun	P&L summary	200	
	Loss on disposal of computer		200
	Closing entry		

If an asset is disposed of at a profit that is, at a value greater than its carrying value the closing entry is simply the other way around.

As a **profit on disposal of asset** represents a revenue item, the Profit and Loss Summary account must be credited, with the debit entry being recorded in the revenue account to bring its balance back to zero. The closing entry for a profit of $100 on the sale of a computer would be as shown in Figure 17.6.

profit on disposal of asset the difference between the carrying value of an asset and the proceeds from its disposal, where the proceeds are greater than the carrying value

FIGURE 17.6 **Closing entry for a profit on disposal of an asset**

GENERAL JOURNAL

30 Jun	Profit on disposal of computer	100	
	P&L summary		100
	Closing entry		

17.3 CHECK YOUR UNDERSTANDING

WB PAGE 299

1 A vehicle was sold for $5000 when its carrying value was $5500. State the double entry to record the profit or loss on disposal of the vehicle.

2 Explain the difference in recording procedures when an asset is traded in, rather than sold for cash.

3 A photocopier has been traded in for $6000 on a new machine that was bought from Classic Copiers for $25 000, plus GST. To assist the business with this purchase, West Bank allowed the business to borrow $20 000. State the double entries required for:

  a the trade-in allowance
  b taking out the loan of $20 000
  c the cash payment for the new photocopier.

17 CHAPTER REVIEW

KEY CONTENT

- **[17.1]** If a non current asset is bought for cash, the general journal is straightforward. If it is purchased using borrowed funds, such as finance or a loan, the funds must first be recorded as a cash inflow or credit, then the purchase is recorded as a debit.
- **[17.2]** When a non current asset is disposed of, it must be removed from the books of the business, as it is no longer under the control of the entity. The cost of the asset, and its accumulated depreciation, must be transferred to the Disposal of Asset account. This account is also used to record any proceeds from the sale of the asset.
- **[17.2]** A business may make a profit or a loss when disposing of an asset, depending on how the item has depreciated and how that depreciation has been recorded.
- **[17.3]** If a non current asset is traded in, rather than being sold for cash, no cash receipt entry is made in the general journal, as no cash has changed hands. However, the trade in allowance must be recognised and recorded.

CHAPTER 17 EXERCISES

SPREADSHEET

1 General journal entries revisited

WB PAGE 300

Prepare the required general journal entries to ensure the correct recording of the following information in the books of Galaxy Games during November 2023.

Nov 4: A mobile phone was purchased for cash from Mobiles 'R' Us for $700, plus GST of $70.

Nov 10: An office desk was purchased for $440, including GST of $40, from Frankie Cotso Furniture.

Nov 18: The owner transferred $330 to Furniture Galore for the purchase of a new office chair.

Nov 22: An accounts receivable, S. Claus, returned goods that were originally sold for $220, including GST of $20. Credit note no. 54 was issued and full credit was granted. The cost price of the goods returned was $100.

Nov 27: The owner was dissatisfied with some products in the store and returned them to Works Gameshop, the original supplier, who sent credit note no. 72. The original charge was $300, plus GST of $30, when the purchase was initially made.

Note: this business makes all payments by electronic funds transfer (EFT).

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2 Purchase of non-current assets

WB PAGE 301 SPREADSHEET

On 5 September 2023, Krusty Products purchases a new computer for cash from PC Computers for $2400, plus GST of $240. On 12 September the firm took out a loan from CBA Finance for $15 400. On 15 September it bought a photocopier costing $14 000, plus GST of $1400, from Kanen Co. Ltd (EFT transfer).

- **a** Show the general journal entries to record these transactions.
- **b** Post the general journal to the relevant general ledger accounts.

3 Disposal of a non-current asset for cash

WB PAGE 303 SPREADSHEET

The following ledger accounts are extracted from the books of Brunswick Barbecues at the end of 2023.

Vehicle

		$			$
31 Dec	Balance	18000			

Accumulated depreciation of vehicle

		$			$
			31 Dec	Balance	13000

On 31 December 2023 the vehicle was sold for $3700 cash.

- **a** Prepare the general journal entries necessary to record the disposal of the vehicle.
- **b** Prepare the closing entries required on 31 December 2023 in relation to the profit or loss on the disposal of the vehicle.
- **c** Prepare the following general ledger accounts.
  - **i** Vehicle
  - **ii** Accumulated Depreciation of Vehicle
  - **iii** Disposal of Vehicle
  - **iv** Profit (or Loss) on Disposal of Vehicle
- **d** State the item that would be reported in the firm's income statement as a result of the disposal of the vehicle.

4 Disposal for cash: straight-line depreciation

WB PAGE 304 SPREADSHEET

Ezard's Electricals closes its books on 30 June each year. The business purchased storage equipment on 1 July 2023 for $8000, plus GST. The equipment had an estimated life of five years, after which time it was expected to be sold for $1000. Management decided to depreciate the asset using the straight line method.
On 30 June 2025 the owner decided to sell the equipment for $5500 cash.

- **a** Prepare the general journal entries required to record the disposal of the equipment on 30 June 2025.
- **b** Prepare the following general ledger accounts for the period 1 July 2023 to 30 June 2025.
  - **i** Storage Equipment
  - **ii** Depreciation of Storage Equipment
  - **iii** Accumulated Depreciation of Storage Equipment
  - **iv** Disposal of Storage Equipment
- **c** Was a profit or a loss made on the disposal of the equipment? If so, how much?
- **d** Explain why the profit or loss identified in part **c** occurred.

SPREADSHEET

5 Disposal for cash: reducing balance depreciation

WB PAGE 306

Dragonforge Replica Armour purchases a delivery van for $28 000, plus GST, on 1 July 2023. The owner decides to depreciate the van at the rate of 25% per annum using the reducing balance method. The business has a reporting period of 12 months and the balance day is 31 December. Due to its poor performance, the owner sells the van for $14 800 cash on 31 December 2025.

- **a** Prepare the general journal entries required to record the disposal of the vehicle on 31 December 2025.
- **b** Prepare the closing entries required in relation to the disposal of the asset.
- **c** Prepare the following general ledger accounts for the period 1 July 2023 to 31 December 2025.
  - **i** Delivery Van
  - **ii** Accumulated Depreciation of Delivery Van
  - **iii** Disposal of Delivery Van
  - **iv** Profit (or Loss) on Disposal of Delivery Van.

SPREADSHEET

6 Trade-in with new asset financed by a loan

WB PAGE 308

The following accounts are found in the general ledger of Port Melbourne Import & Export.

Photocopier

2023		$			$
31 Aug	Balance	32 000			

Accumulated depreciation of photocopier

		$	2023		$
			31 Aug	Balance	14 000

On 31 August 2023 the photocopier is traded in on a new model. The trade in allowance was $16 500 towards the cost of the new photocopier, which was $35 000, plus GST of $3500. The owner decides to borrow the required amount of funds from EZ Finance Company to pay for the rest of the cost of the new photocopier. This loan is approved on 31 August and the funds are transferred to the business bank account.

- **a** Prepare the general journal entries necessary to record the disposal of the photocopier.
- **b** Prepare the general journal entry to record the loan from EZ Finance and the purchase of the new photocopier.
- **c** Prepare the following general ledger accounts with all relevant entries.
  - **i** Photocopier
  - **ii** Accumulated Depreciation of Photocopier
  - **iii** Disposal of Photocopier
  - **iv** Loan from EZ Finance and GST Clearing

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7 Trade-in of an asset: reducing balance depreciation method

WB PAGE 310 SPREADSHEET

Garra's Gift Shop closes its reporting period on 30 September each year. The owner of the business, Jon Garra, buys a computer system from MBI Computers on 31 July 2023 for $16 000, plus GST of $1600. He decides to depreciate the computer using the reducing balance method at 30% per annum, and to keep it for a few years. However, after discovering a new, improved model, Garra decides to trade in his old computer system and upgrade to the new one.

The supplier of the new system, Computer Solutions, gives Garra a trade in allowance of $2100 on 31 March 2025. The price of the new system is $20 000, plus GST of $2000. To assist with this purchase, Garra decides to borrow $12 000 from ANZ Bank.

a Prepare the general journal entry to record the purchase of the asset on 31 July 2023.

b Prepare any necessary adjusting and closing entries on 30 September 2023 and 2024.

c Prepare the general journal entries required to record the disposal of the computer on 31 March 2025.

d Prepare the following general ledger accounts for the period 31 July 2023 to 31 March 2025.

- **i** Computer System
- **ii** Depreciation of Computer System
- **iii** Accumulated Depreciation of Computer System
- **iv** Disposal of Computer System
- **v** Profit (or Loss) on Disposal of Computer System
- **vi** Loan ANZ Bank

e Was a profit or a loss made on the disposal of the computer system? If so, how much?

f Explain how a profit or loss on disposal occurs.

SPREADSHEET

8 Trade-in of an asset using business document

WB PAGE 313

Katrina Williams is the proprietor of Kat's Boutique. On 1 September 2023, Williams purchases a sound system for her shop at a cost of $8000, plus GST of $800. It was bought from DJ Hi Fi Store, which charged an additional $600 to install the system (plus GST of $60). These costs were confirmed in writing by tax invoice 32. This amount is paid on 30 September 2023.

Williams thinks the sound system should be useful for about five years, after which she will trade it in. She anticipates that it will have a trade in value of about $1200. Balance day is 30 June and straight line depreciation is applied.

However, on 30 September 2025, Williams decides that she's dissatisfied with the sound system and arranges to replace it. DJ Hi Fi is again the supplier and provides the following document.

DJ Hi-Fi

8121 Highpoint Road
Maidstone VIC 3012

Tax invoice 65
Date: 30/9/25
ABN 31 101 232 948

Account: Kat's Boutique
27 Palm Beach Avenue
Brighton VIC 3186

Item	Qty	Cost	GST	Total
Megablast system	1	$9 000	$900	$9 900
Installation charge		$1 000	$100	$1 100

Sub-total	$11 000
Less: Trade-in allowance	$4 000
Amount owing	$7 000

Paid in full – thank you for your business!

Williams thinks the new Megablast system will be much better than the previous one. She expects to use it for five years, before selling it for about $1500. She pays the amount outstanding to DJ Hi Fi on 30 September 2025.

a Prepare the general journal entries required to record the disposal of the sound system on 30 September 2025.

b Prepare the following general ledger accounts for the period 1 September 2023 to 30 September 2026, including details of both assets.

- **i** Sound System
- **ii** Accumulated Depreciation of Sound System
- **iii** Disposal of Sound System
- **iv** Profit (or Loss) on Disposal of Sound System

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CASE STUDY

WB PAGE 315

Greensborough Garden Supplies is a small business owned and managed by Matthew Decker. In order to move heavy items around his storage yard, Decker has purchased a number of forklifts over the years. His policy is to depreciate the business's forklifts at the rate of 25% per annum, using the reducing balance method of depreciation. If the forklifts become unreliable, Decker doesn't hesitate to replace them, because they are crucial to the running of his business.

The following is a summary of the purchases and sales of Decker's forklifts over the years:

- Forklift #1: Purchased on 1 April 2023 for $15 000 cash, plus GST of $1500. Insurance cost is $200 per annum.
- Forklift #2: Purchased on 31 October 2023 for $19 800 cash (including GST). Insurance cost is $250 per annum.
- Forklift #3: Purchased on 30 June 2024 as a replacement for forklift #1, which keeps breaking down. A trade in allowance of $9000 is granted by the supplier, Dynamic Forklifts. The purchase price of the new forklift is $19 000 (plus GST), but modifications are required and these cost an additional $1500 (plus GST). Insurance cost is $300 per annum. The new forklift is bought for cash via EFT.
- Forklift #4: Forklift #2 is now becoming unreliable, so it is traded in for $13 500 on forklift #4 on 1 September 2025. Dynamic Forklifts issues a receipt with a cost price of $22 000, plus GST of $2200, less the agreed trade in. Insurance is arranged at a cost of $400 per annum. Due to previous problems with his forklifts, Decker arranges a maintenance contract at a cost of $500 per year. A loan of $7000 is taken out from EZ Bank to help with the purchase of the latest forklift.

SPREADSHEET

a Using a spreadsheet, prepare a table to calculate the amount of depreciation expense that would be shown in the income statements for the years ended 31 December 2023, 2024 and 2025. An example layout is provided below.

	2023	2024	2025
Forklift #1			
Forklift #2			
Forklift #3			
Forklift #4			
Total depreciation expense for the year			

b On your spreadsheet, prepare extracts from the balance sheets prepared as at 30 June 2023, 2024 and 2025 to show how the asset Forklifts would be reported in each of these three years.

c Prepare the Disposal of Forklift account with all entries in relation to:

- **i** forklift #1
- **ii** forklift #2.

d Depreciation and disposal of non current assets are both affected by several accounting assumptions and/or qualitative characteristics. State, and explain, the assumptions and characteristics that are related to this area over the life of a non current asset.

CHAPTER CHECKLIST

Now that you have finished Chapter 17, double check your progress.
Are you ready for your Unit 4 exam?

I have …

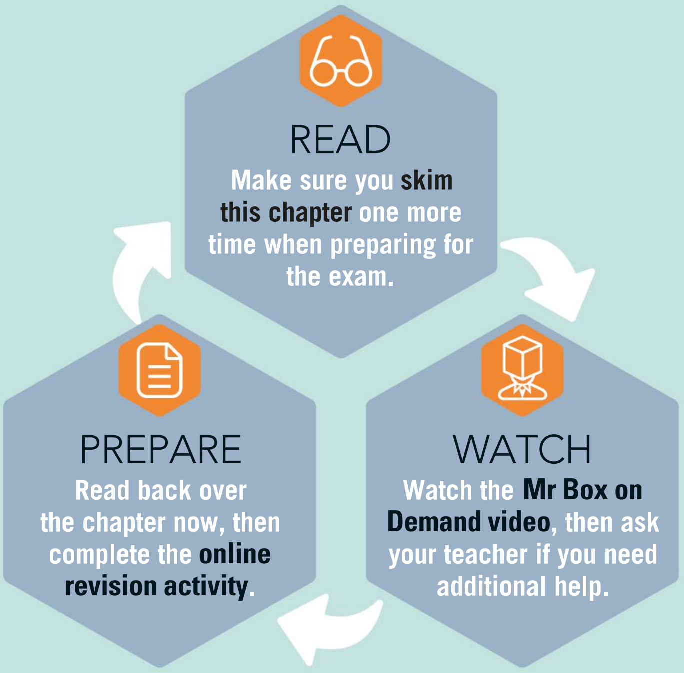
- completed all ‘Check Your Understanding’ questions
- completed all exercises
- completed the end of chapter activities
- handed in my workbook for marking.

I understand …

- the purchase of non current depreciable assets for cash and financed by a loan
- the recording and reporting on the disposal of a non current depreciable asset.

I can …

- analyse the effect of financial transactions on the accounting reports.



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18 PROFIT DETERMINATION AND BALANCE DAY ADJUSTMENTS

The ultimate goal of every trading business is to make a profit that is, to earn more revenue than it incurs in expenses. But determining whether a business has made a profit can be a complex task, involving many elements of the accounting process.

In this chapter and Chapter 19, you will learn how to determine profit, and to adjust and update ledger accounts on balance day.

LEARNING OBJECTIVES

By the end of this chapter, you will be able to:

- outline the period assumption and its relationship with balance day adjustments [18.1]
- explain the need for balance day adjustments under the accrual method of accounting [18.1]
- describe the role of adjusting and closing entries [18.1]
- record entries in the general journal for prepaid expenses using the asset approach [18.2]
- record entries in the general journal for accrued expenses [18.3]
- describe the treatment of accrued expenses in a subsequent period when payment is made [18.3]
- record adjustments for inventory losses and inventory gains [18.4]
- prepare ledger accounts incorporating balance day adjustments [18.6]
- describe the two fold effect that balance day adjustments have on final accounting reports [18.6]
- calculate profit under the accrual method of accounting [18.6].

UNIT 4 – PROGRESS 14 — 15 — 16 — 17 — 18 ··· 19 ··· 20 ··· 21 ··· 22 ··· 23

18.1 Profit determination: underlying assumptions

18.2 Prepaid expenses

18.3 Accrued expenses

18.4 Inventory losses and gains

18.5 Extended example: Adjusting and closing entries

18.6 The adjusted trial balance

Chapter review and exercises

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18.1 PROFIT DETERMINATION: UNDERLYING ASSUMPTIONS

Before you learn about the various problems involved in attempting to determine profit, it's important to understand the accounting rules and assumptions on which profit determination is based. (You'll already know about some of these from earlier in this book.)

The first of these is the *going concern assumption*, which assumes that the business will continue to operate as a going concern for an indefinite period into the future. The going concern assumption allows accountants to report non current assets in a balance sheet in the belief that they will have some future economic value to the business.

However, there's little value in waiting until a business is wound up before reporting on its activities. Performance needs to be reported on a periodic basis. In response to this need, the *period assumption* was created. This assumption divides the indefinite life of a business into periods of time over which its performance (i.e. profit or loss) can be measured. The maximum period of time is one year, due to taxation requirements. The last day of the period is referred to as balance day.

After the period is decided, the qualitative characteristic of *relevance* is applied to determine which revenue and expenses will be included in calculating an accurate profit or loss figure.

ACCRUAL ACCOUNTING

accrual accounting a system of determining profit where revenue earned is matched with expenses incurred; any difference is the profit for the period

This chapter is based on **accrual accounting**, where profit is defined as revenue earned less the expenses incurred in earning that revenue. This method recognises that a business can earn revenue in one period but actually receive the cash in a previous or subsequent period. It also recognises that some cash payments relate to items owing from a previous period, or are paid in advance for a future period.

The accrual method of accounting attempts to measure the revenue and expenses that belong to the same period of time.

The following transactions highlight the application of accrual accounting to practical examples. All the examples are for Artisan Jeans, a business that uses 31 December as its balance day.

EXAMPLE 18.1

Sales invoices for goods sold during December totalled $10 000. On 31 December, only $2000 of this amount had been received in cash.

Under accrual accounting: Sales revenue = $10 000, as this amount was earned in the current period. The whole $10 000 is recognised as revenue, regardless of the fact that $8000 hasn't yet been received. This is because the revenue-earning process has been completed and there's objective evidence of the amount of revenue earned (the invoices). As long as these two requirements are satisfied, revenue may be recognised as being earned under accrual accounting.

EXAMPLE 18.2

On 1 July a yearly insurance premium of $2000 was paid.

Under accrual accounting: Insurance expense = $1000, as only half of the insurance payment has been incurred (or expired) during the current period. The other $1000 will be recognised as an expense in the following period.

EXAMPLE 18.3

Advertising paid this year totalled $4000, with $1000 of this amount relating to advertising that was done during the previous period.

Under accrual accounting: Advertising expense = $3000, as this is the amount of expense that belongs to the current period. It ignores the other $1000, as that amount relates to the previous year and therefore wasn't incurred during the current period.

BALANCE DAY ADJUSTMENTS

At the end of a period, a trial balance (p.88) should be prepared to check the accuracy of the double entries made during the period. When this process is completed, accounting reports can then be prepared. In order to comply with the demands of accrual accounting, the figures in the trial balance must equal the revenue earned and the expenses incurred.

However, often the accounts will only reflect the cash flows that took place during the period. Some of these cash flows may relate to revenues and expenses associated with the previous or subsequent periods. **Balance day adjustments** are used to adjust the balances of revenue and expense accounts so that they equal the amounts of revenue earned and expenses incurred.

Before exploring various examples of balance day adjustments, it's important to understand the differences between two types of entries made in general ledger accounts via the general journal.

- **Adjusting entries** are used in revenue and expense accounts to make them equal to revenue earned and expenses incurred. Adjusting entries are made on the last day of the period that is, on balance day.
- **Closing entries** are used to close off the adjusted revenue and expense accounts to the Profit and Loss Summary account. Closing entries are also made on balance day.

balance day adjustments
adjustments made to revenue and expense accounts at the end of a period so that they equal revenue earned and expenses incurred

adjusting entry
a general journal entry used to adjust revenue and expense accounts (see balance day adjustments)

closing entry
a general journal entry used to close off a revenue or expense account

18.1 CHECK YOUR UNDERSTANDING

WB PAGE 318

1 Explain the going concern assumption.
2 What is the purpose of the period assumption? Why do accountants follow this assumption?
3 What are balance day adjustments? What is the purpose of such adjustments?
4 Explain the role of each of the following types of general journal entries:
   a adjusting entries
   b closing entries.

18.2 PREPAID EXPENSES

An *asset* is a resource under the control of an entity that has future economic benefits. An *expense* is the consumption or loss of economic benefits, which leads to a decrease in owner's equity. When a business pays for an item in advance, it poses the question: does the item represent an asset or an expense?

Consider the case of Preston Pet Smart, which pays a $480 12 month insurance premium in advance on 1 October 2023. What is the double entry for such a transaction?

- The credit entry is clear: as Cash at Bank has decreased, it must be credited.
- There are two possibilities for the debit entry: the initial payment can be treated as an asset or as an expense.

This $480 insurance premium appears to qualify under the definition of an asset it's controlled by the entity and has future economic benefits. Therefore, it should be recorded as an asset when the transaction occurs on 1 October 2023.

However, insurance is normally referred to as an expense in accounting but when an expense is paid in advance, it hasn't yet been consumed and therefore doesn't satisfy the definition of an expense. To avoid confusion, an expense paid in advance is referred to as a **prepaid expense**.

prepaid expenses expenses paid during a period but not yet used

A prepaid expense exists when a payment relates to a future economic benefit because the item hasn't yet been consumed. For example, if wages are paid at the end of the working week, they're treated as an expense because the economic sacrifice has been fully consumed. If insurance (or any other expense) is paid in advance, the economic benefit is yet to be used, so an asset has been created.

PREPAID EXPENSES ON BALANCE DAY

Having decided to record the insurance payment in an asset account (Prepaid insurance), the problem then switches to balance day. If Preston Pet Smart closes its books on 31 December, how much insurance should it take into account?

Accrual accounting requires that only the *relevant* amount of insurance expense is deducted from the period's revenue in order to determine an accurate profit, but the insurance payment was debited to an asset account.

The next step is to transfer out of the asset account the amount of expense that has been used up or has expired.

Using the details of Preston Pet Smart's $480 insurance payment, the following summary can be prepared.

1 October 2023	Insurance paid: $480 (which equals a cost of $40 per month)
31 December 2023	Insurance expense incurred in 2023 (three months used): 3 × $40 = $120
31 December 2023	Prepaid insurance for 2024 (nine months not used): 9 × $40 = $360

As the insurance was paid on 1 October for 12 months in advance, only three months has expired before balance day (31 December). Therefore, only one quarter ($120) of the total payment should be treated as an expense. The other $360 remains as an asset, as it still has future economic benefit for the business.

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The Prepaid insurance expense account is shown as follows, with both the original cash payment and the necessary adjusting entry to Insurance expense on 31 December.

Prepaid insurance expense

		$			$
2023			2023		
1 Oct	Cash at bank	480	31 Dec	Insurance expense	120

Insurance expense

		$			$
2023					
31 Dec	Prepaid insurance expense	120			

EXAM SUCCESS
When adjusting a prepaid expense item, always debit the expense.

As some of the insurance paid has now been used, it's removed from the asset account by the credit entry and transferred to the expense account (Insurance Expense) on balance day. The balance of the Prepaid insurance expense account is now $360 ($480 $120), which is the economic benefit remaining as at 31 December 2023.

The Insurance Expense account is now ready for closing to the Profit and Loss Summary account. As the Prepaid insurance expense account is an asset, it's balanced in the usual way. The closing and balancing of these two accounts results in the entries shown below.

Prepaid insurance expense

		$			$
2023			2023		
1 Oct	Cash at bank	480	31 Dec	Insurance expense	120
			31 Dec	Balance	360
		480			480
2024					
1 Jan	Balance	360			

Insurance expense

		$			$
2023			2023		
31 Dec	Prepaid insurance expense	120	31 Dec	P&L summary	120

The expense account is now closed and the amount of expense incurred in the current period ($120) has been transferred to the Profit and Loss Summary account. The amount of insurance not yet used ($360) remains in the Prepaid insurance expense account and will be reported in the balance sheet as a current asset.

As with all general ledger recordings, the adjusting and closing entries are all recorded in the general journal first, before being entered in the general ledger. Using the data from the above example, the general journal entries would be prepared as shown in Figure 18.1.

FIGURE 18.1 Adjusting and closing entries for a prepaid expense

GENERAL JOURNAL

Date	Details	Dr	Cr
31 Dec 2023	Insurance expense	120	
	Prepaid insurance expense		120
	Adjusting entry for three months' insurance incurred		
31 Dec	P&L summary	120	
	Insurance expense		120
	Closing entry		

Keep in mind that when a business pays expenses (including prepaid expenses), it may also have to pay GST. Expenses such as wages don't attract GST, but other expenses may.

In the case of Preston Pet Smart, the annual insurance premium paid was $480. Applying the 10% GST to this amount would mean that the business would actually pay a total of $528 ($480 for the expense, plus $48 GST).

The payment for prepaid insurance, as demonstrated above, would be recorded in the general journal as shown in Figure 18.2.

FIGURE 18.2 Journal entry to record the payment of a prepaid expense

GENERAL JOURNAL

Date	Details	Dr	Cr
1 Oct 2023	Prepaid insurance expense	480	
	GST clearing	48	
	Cash at bank		528
	Payment of 12 months' insurance in advance via EFT		

18.2 CHECK YOUR UNDERSTANDING

WB PAGE 319

1 Outline the circumstances that exist when an adjustment for prepaid expenses is required.

2 A business paid for a 12-month insurance policy on 1 February 2023. The amount paid was $660 (including GST). No other insurance policies were taken out. The owner determines profit annually, with balance day being on 30 September each year. How much should be reported for insurance expense for the year ended 30 September 2023?

3 At the end of a period, a business had a Prepaid Insurance account with a balance of $4000. On balance day the insurance expired for the period was determined to be $3400. If the adjusting entry wasn't made, what would be the effect on the firm's balance sheet? Copy and complete the following table to show the effect of this omission. (Show dollar amounts where applicable.)

Item	Overstated/understated/no effect	$
Assets		
Liabilities		
Owner's equity		

18.3 ACCRUED EXPENSES

An expense account may include several cash payments for costs paid during the period, but there may be additional outstanding accounts on balance day. If these costs were incurred in the current period, they should also be included in profit calculations for the current period.

Consider the case of Abbotsford Archery Supplies, which paid $800 for advertising during 2023. On 31 December the business owes another $200 for advertising completed during December. In this case, the cost incurred for advertising during 2023 is $1000, yet the balance of the Advertising Expense account in the trial balance would only be $800 before adjustments have been entered.

The Advertising Expense account has been prepared below and includes the necessary balance day adjustment.

Advertising expense

2023		$			$
Jan–Dec	Cash at bank	800			
31 Dec	Accrued advert expense	200			

Accrued advertising expense

		$	2023		$
			31 Dec	Advertising expense	200

The adjusting entry for the **accrued expense** has the following features:

- The debit entry increases the expense account so that it equals the total cost incurred for the period (i.e. $1000).
- It creates a liability on balance day in the form of the Accrued Advertising Expense account.

accrued expenses expenses that have been incurred during a period but not yet paid, remaining as liabilities on balance day

RECORDING ACCRUED EXPENSES

In the above case, Abbotsford Archery Supplies owes $200 as at 31 December. As this $200 is a present obligation resulting from a past event, it should be reported as a liability. As this type of debt would usually be paid within a short period of time (perhaps 30 or 60 days), it's classified as a current liability.

The closing entry is entered as usual on the credit side of the expense account. This closing entry transfers the advertising expense for the period ($1000) to the Profit and Loss Summary account on balance day.

Advertising expense

2023		$	2023		$
Jan–Dec	Cash at bank	800			
31 Dec	Accrued advertising expense	200	31 Dec	P&L summary	1 000
		1 000			1 000

The general journal entries required for the adjusting and closing entries for accrued advertising are shown in Figure 18.3.

FIGURE 18.3 Adjusting and closing entries for an accrued expense

GENERAL JOURNAL

Date	Details	Dr	Cr
31 Dec 2023	Advertising expense	200	
	Accrued advertising expense		200
	Adjusting entry for advertising owing		
31 Dec	P&L summary	1 000	
	Advertising expense		1 000
	Closing entry		

ACCRUED EXPENSES IN SUBSEQUENT PERIODS

It's important to consider the treatment of accrued expenses in the subsequent period. For Abbotsford Archery Supplies, an Accrued Advertising Expense account was created for advertising owing on balance day. The $200 listed as owing at that time would be reported in the balance sheet as a current liability. This item would be paid sometime in the early stages of the next period (e.g. 5 January).

When the amount owing is paid off, it should *not* be recorded as an expense in the new period. The double entry shown in Figure 18.4 will ensure that this is achieved. (The related GST payment has also been included.)

FIGURE 18.4 Payment of an accrued expense in the subsequent period

GENERAL JOURNAL

Date	Details	Dr	Cr
5 Jan	Accrued advertising expense	200	
	GST clearing	20	
	Cash at bank		220
	Payment of accrued advertising from previous period via EFT		

It's vital that the payment of $200 is debited to accrued advertising, and *not* to advertising expense. This will avoid counting the advertising payment as an expense twice.

When creating the account on balance day, a specific title such as 'Accrued Advertising Expense' should be used, rather than the generic term 'Accrued Expenses'. This allows the expense that's owing to be easily identified; when it is paid off in the new period, the accrued account can be eliminated.

When the cash payment is made, the Accrued Advertising Expense account will appear as follows.

Accrued advertising expense

		$			$
5 Jan	Cash at bank	200	31 Dec	Advertising expense	200

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SPLITTING UP ACCRUED EXPENSES IN SUBSEQUENT PERIODS

In the previous example, $200 was owing for advertising from the previous period. This amount was then paid off during January. However, what happens if $500 (plus GST of $50) was paid for advertising on 5 January, including the $200 owing as at 31 December?

This $500 can be broken down into two parts:

- The amount owing from last period is $200.
- The remaining $300 relates to advertising expense for the new period.

It's important to record the two amounts accurately. First, the $200 owing should be closed off in the liability account. The second part of the transaction is to record the other $300 in the Advertising Expense account as usual; see Figure 18.5.

DON'T!
When paying accrued expenses in the next period, make sure you don't debit the expense account with the total amount paid.

FIGURE 18.5 Payment of an accrued expense in the subsequent period, with an additional expense also being paid

GENERAL JOURNAL

Date	Details	Dr	Cr
31 Dec 2023	Accrued advertising expense	200	
	Advertising expense	300	
	GST clearing	50	
	Cash at bank		550
	Payment of $200 accrued advertising from previous period, plus $300 for the current period (EFT payment)		

When the one payment of $500 is paid for advertising (plus GST), it's important to record this payment correctly in the journal. The total amount must be split between the payment of the liability and the payment of the expense. The end result is that the liability owing from the previous period (i.e. $200) has been eliminated, and the expense incurred in relation to the new period is also recorded ($300 in the expense account).

Payment of liability and expense must be recorded separately.

Note also that the total amount of GST paid, which is $50, is recorded at this time.

Accrued advertising expense

		$			$
31 Jan	Cash at bank	200	31 Dec	Advertising expense	200

Advertising expense

		$			$
31 Jan	Cash at bank	300			

GST clearing

		$			$
31 Jan	Cash at bank	50			

18.3 CHECK YOUR UNDERSTANDING

WB PAGE 320

1 What is an accrued expense? Explain the effect of an adjusting entry for an accrued expense on both the income statement and the balance sheet.

2 A business had accrued advertising of $250 on balance day of 30 June 2023. State the double entry required when the advertising is paid on 2 July 2023 (including the GST payment of $25).

3 If a business had accrued wages of $400 on balance day of 31 December 2023, state the double entry required when wages of $500 are paid on 2 January 2024.

4 Copy and complete the following table to show the effect of an adjusting entry for an accrued expense of $400 on the accounting equation. (Show dollar amounts where applicable.)

Item	Increase	Decrease	No effect
Assets			
Liabilities			
Owner's equity			

18.4 INVENTORY LOSSES AND GAINS

While accounting for inventory losses and gains was covered earlier in Chapter 7, it's important to realise that such entries are also balance day adjustments.

ADJUSTMENT FOR AN INVENTORY LOSS

Physical stocktakes are carried out on balance day. If necessary, an adjustment for an inventory loss is also done at this time. Consider the following details.

31 Dec	Balance of the Inventory account	$45 000
	Value determined by the physical stocktake	$42 500

In this situation, an inventory loss of $2500 has occurred. A balance day adjustment is required to decrease the balance of the Inventory account to its correct figure. The adjustment also creates an expense account in the form of Inventory Loss, as the business has experienced a consumption of economic benefits (although unintentionally) to the value of $2500.

The adjusting entry required is shown in Figure 18.6.

FIGURE 18.6 Adjusting entry for an inventory loss

GENERAL JOURNAL

Date	Details	Dr	Cr
31 Dec	Inventory loss	2 500	
	Inventory		2 500
	Adjusting entry for inventory loss revealed by physical stocktake (Memo 76)		

ADJUSTMENT FOR AN INVENTORY GAIN

The other possible balance day adjustment required is to account for an inventory gain. Consider the following details.

31 Dec	Balance of the Inventory account	$45 000
	Value determined by the physical stocktake	$46 000

In this situation, an inventory gain of $1000 has occurred. A balance day adjustment is required to increase the balance of the Inventory account to its correct figure. The adjustment also creates a revenue account in the form of Inventory Gain, as the business has had an inflow of resources to the value of $1000.

It could be argued that inventory gains are merely an adjustment to expenses, because this type of gain often occurs because of recording or stocktaking errors. However, an inventory gain may also occur through oversupply by a supplier. Although such an event should be detected when goods are delivered, it's possible that it may go undetected throughout the period.

The effect of oversupply is that the business has (accidentally) experienced an inflow of economic resources, which qualifies as a revenue item. Thus, inventory gains should be recognised as revenue and must be adjusted for on balance day.

The adjusting entry to record an inventory gain of $1000 is shown in Figure 18.7.

FIGURE 18.7 Adjusting entry for an inventory gain

GENERAL JOURNAL

Date	Details	Dr	Cr
31 Dec	Inventory	1 000	
	Inventory gain		1 000
	Adjusting entry for inventory gain revealed by physical stocktake (Memo 76)		

18.4 CHECK YOUR UNDERSTANDING

WB PAGE 320

1. What is the double entry required to account for an inventory loss? Explain the two-fold effect an inventory loss has on a balance sheet.
2. Explain how a physical stocktake can help satisfy verifiability.
3. Explain two possible causes of an inventory gain.

18.5 EXTENDED EXAMPLE: ADJUSTING AND CLOSING ENTRIES

The following extended example demonstrates the processes involved in recording adjusting and closing entries for a small business. A trial balance has been prepared for the business of Supreme Trading Store, and this is followed by a series of balance day adjustments to be recorded on 30 June 2023.

SUPREME TRADING STORE: TRIAL BALANCE AS AT 30 JUNE 2023

	$		$
Prepaid insurance expense	2280	Sales revenue	121 000
Interest expense	9000	Accumulated depreciation – office furniture	540
Inventory	55 000	Loan – NAB	183 000
Advertising expense	2600	Capital	676 120
Telephone expense	780	Interest revenue	200
Drawings	8000	Accounts payable	12 000
Wages	48 000	GST clearing	2000
Term deposit (maturing 30/6/24)	6000	Allowance for doubtful debts	1 000
Cash at bank	2500		
Accounts receivable	10 100		
Cost of sales	47 000		
Sales returns	1 000		
Office furniture	3600		
Premises	800 000		
	995 860		995 860

Adjustments required:

- insurance expense for the year: $2000
- inventory on hand as at 30 June 2023: $54 600 (Memo 36)

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- B Broak, an accounts receivable who owes $1000, to be written off as a bad debt; the allowance for doubtful debts to be increased to $1200
- advertising owing: $300
- depreciation office furniture: 10% per annum on cost.

GENERAL JOURNAL

The following adjusting and closing entries to account for the balance day adjustments are recorded in the general journal.

Date	Details	Dr	Cr
30 June 2023	Insurance expense	2 000	
	Prepaid insurance expense		2 000
	Adjusting entry for insurance incurred		
	Inventory loss	400	
	Inventory		400
	Adjusting entry for inventory loss identified by physical stocktake (Memo 36)		
	Allowance for doubtful debts	1 000	
	Accounts receivable		1 000
	Account: B Broak written off as bad debt		
	Bad debts	1 200	
	Allowance for doubtful debts		1 200
	Adjusting entry to increase allowance for doubtful debts to $1200		
	Advertising expense	300	
	Accrued advertising expense		300
	Adjusting entry for advertising owing		
	Depreciation – office furniture	360	
	Accumulated depreciation – office furniture		360
	Adjusting entry for depreciation: 10% on cost		
	Sales	121 000	
	Interest revenue	200	
	Sales returns		1 000
	P&L summary		120 200
	Closing entries		
	P&L summary	111 640	
	Insurance		2 000
	Interest expense		9 000
	Advertising expense		2 900
	Telephone expense		780
	Wages		48 000
	Cost of sales		47 000
	Inventory loss		400
	Bad debts		1 200
	Depreciation of office furniture		360
	Closing entries		
	P&L summary	8 560	

EXAM SUCCESS
Always remember: one closing entry for all revenues and one closing entry for all expenses.

	Capital		8 560
	Transfer of net profit		
	Capital	8 000	
	Drawings		8 000
	Transfer of owner's drawings		

GENERAL LEDGER

These general journal entries must now be posted to general ledger accounts.

The accounts involved in the profit determination process are shown below, along with the items from the balance sheet that are affected by the adjusting entries.

Sales revenue

		$			$
30 Jun	P&L summary	121 000	Jul–Jun	Cash at bank	121 000

Prepaid insurance

		$			$
Jul–Jun	Cash at bank	2 280	30 Jun	Insurance expense	2 000
				Balance	280
		2 280			2 280
1 Jul	Balance	280			

Insurance expense

		$			$
30 Jun	Prepaid insurance expense	2 000	30 Jun	P&L summary	2 000

Interest expense

		$			$
Jul–Jun	Cash at bank	9 000	30 Jun	P&L summary	9 000

Inventory

		$			$
30 Jun	Balance	55 000	30 Jun	Inventory loss	400
				Balance	54 600
		55 000			55 000
1 Jul	Balance	54 600			

Inventory loss

		$			$
30 Jun	Inventory	400	30 Jun	P&L summary	400

Advertising expense

		$			$
Jul–Jun	Cash at bank	2 600			
30 Jun	Accrued advertising expense	300	30 Jun	P&L summary	2 900
		2 900			2 900

Accrued advertising expense

		$			$
			30 Jun	Advertising expense	300

Wages

		$			$
Jul–Jun	Cash at bank	48 000	30 Jun	P&L summary	48 000

Telephone expense

		$			$
Jul–Jun	Cash at bank	780	30 Jun	P&L summary	780

Cost of sales

		$			$
Jul–Jun	Inventory control	47 000	30 Jun	P&L summary	47 000

Interest revenue

		$			$
Jul–Jun	P&L summary	200	Jul–Jun	Cash at bank	200

Accounts receivable

		$			$
30 Jun	Balance	10 100	30 Jun	Allowance for doubtful debts	1 000
				Balance	9 100
		10 100			10 100
1 Jul	Balance	9 100			

Allowance for doubtful debts

		$			$
30 Jun	Accounts receivable	1 000	30 Jun	Balance	1 000
			30 Jun	Doubtful debts expense	1 200

Bad debts

		$			$
30 Jun	Allowance for doubtful debts	1 200	30 Jun	P&L summary	1 200

Depreciation – office furniture

		$			$
30 Jun	Accumulated depreciation – office furniture	360	30 Jun	P&L summary	360

Accumulated depreciation – office furniture

		$			$
			30 Jun	Balance	540
30 Jun	Balance	900		Depreciation – office furniture	360

		900			900
			1 Jul	Balance	900

Profit and loss summary					
		$			$
30 Jun	Expense accounts	111 640	30 Jun	Revenue accounts	120 200
	Capital	8 560			
		120 200			120 200

Capital					
		$			$
30 Jun	Drawings	8 000	30 Jun	Balance	676 120
	Balance	676 680		P&L summary	8 560
		684 680			684 680
			1 Jul	Balance	676 680

Drawings					
		$			$
Jul–Jun	Cash at bank	8 000	30 Jun	Capital	8 000

INCOME STATEMENT AND BALANCE SHEET

The ledger accounts above include the adjusting and closing entries for all of the balance day adjustments. It's important to be able to trace the double entry for each of the adjustments through to the preparation of the Profit and Loss Summary account.

Once all the processes required on balance day have been completed, the financial reports can be prepared in the usual way. The income statement and the balance sheet for Supreme Trading are shown below.

SUPREME TRADING STORE: INCOME STATEMENT FOR THE YEAR ENDED 30 JUNE 2023

	$	$
Revenue		
Sales revenue	121 000	
Less: Sales returns	1 000	120 000
Less: Cost of sales		47 000
Gross profit		73 000
Less: Inventory loss		400
Adjusted gross profit		72 600
Other revenue		
Interest revenue		200
		72 800
Less: Other expenses		
Insurance	2 000	
Interest expense	9 000	
Advertising	2 900	
Telephone	780	
Wages	48 000	
Bad debts	1 200	
Depreciation – office furniture	360	64 240
Net profit		8 560

SUPREME TRADING STORE: BALANCE SHEET AS AT 30 JUNE 2023

Current assets	$	$	$	Current Liabilities	$	$	$
Cash at bank		2 500		Accounts payable		12 000	
Accounts receivable	9 100			Accrued advertising		300	
Less: Allowance for doubtful debts	1 200	7 900		GST clearing		2 000	14 300
Inventory		54 600		Non-current Liabilities			
Term deposit		6 000		Loan – NAB			183 000
Prepaid insurance		280	71 280				
Non-current assets				Owner's equity			
Office furniture	3 600			Capital	676 120		
Less: Accumulated depreciation	900	2 700		Net profit	8 560	684 680	
Premises		800 000	802 700	*Less:* Drawings		8 000	676 680
			873 980				873 980

These two accounting reports have been prepared under the accrual method of accounting. The revenues and expenses reported in the income statement represent the revenues earned and expenses incurred during the period. This also means that the dollar values shown are after adjustments have been made to the accounts.

Inventory losses or gains should be listed immediately after gross profit has been determined. The resultant figure is labelled as *adjusted gross profit*. If the business has earned revenue in addition to its cash and credit sales of inventory items, this should be listed after the adjusted gross profit figure. From this new sub total, the other expenses of the business are deducted to determine the final net profit figure.

The balance sheet states the assets and liabilities after the adjustments have been made. Accrued expenses represent obligations of the business as at 30 June 2023, and are therefore reported as liabilities. Note that the Inventory account has been adjusted for the inventory loss revealed by the physical stocktake. The term deposit (maturing 30 June 2024) has been classified as a current asset, because it's expected to be turned into cash within the next 12 months.

Recording adjustments makes for a more accurate profit figure.

Note that every balance day adjustment in this case study affected an item in both financial reports. This situation will always occur because an adjustment must affect a revenue or expense account as well as an asset or liability. Such adjustments are necessary under accrual accounting in order to meet the demands of both *relevance* and the *period assumption*.

When all adjustments have been recorded, the result is a more accurate profit figure as well as a more accurate statement of a firm's financial position.

1 State the double entry to (a) write off a bad debt, and (b) increase the allowance for doubtful debts.

18.5 CHECK YOUR UNDERSTANDING

WB PAGE 321

2 It could be claimed that doubtful debts create a conflict between relevance and verifiability. Do you agree? Justify your answer.

3 Does writing off an accounts receivable as irrecoverable satisfy the demands of faithful representation? Explain your answer fully.

18.6 THE ADJUSTED TRIAL BALANCE

A trial balance should be prepared at the end of a period to ensure that the double entries made during the period are accurate. Once this has been checked, balance day adjustments may be entered into the books. To ensure that this process has been done correctly, a second trial balance may be prepared.

adjusted trial balance
a trial balance prepared after the recording of balance day adjustments has been completed

An **adjusted trial balance** is prepared after balance day adjustments have been entered in the accounts. As all adjustments are included, the same data that is used to prepare the final reports is used in an adjusted trial balance.

Using the data as stated previously for Supreme Trading Store, the adjusted trial balance would be prepared as shown below.

SUPREME TRADING STORE: ADJUSTED TRIAL BALANCE AS AT 30 JUNE 2023

	$		$
Prepaid insurance expense	280	Sales revenue	121 000
Interest expense	9 000	Accumulated depreciation – office furniture	900
Inventory	54 600	Loan – NAB	183 000
Advertising	2 900	Capital	676 120
Telephone expense	780	Interest revenue	200
Wages	48 000	Accrued advertising expense	300
Term deposit	6 000	GST clearing	2 000
Cash at bank	2 500	Accounts payable	12 000
Accounts receivable	9 100	Allowance for doubtful debts	1 200
Cost of sales	47 000		
Sales returns	1 000		
Office furniture	3 600		

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Drawings	8000		
Premises	800000		
Insurance expense	2000		
Inventory loss	400		
Bad debts	1200		
Depreciation – office furniture	360		
	996720		996720

Always check the data presented for report presentation, as a trial balance contains completely different data from that used for an adjusted trial balance.

An income statement should be based on adjusted revenue and expense accounts. Therefore, an adjusted trial balance provides the required information. However, if a pre adjustment trial balance is the only information available, always ensure that the appropriate balance day adjustments are processed first.

Once those adjustments are made, the final accounting reports may then be prepared to determine an accurate profit figure for the period.

18.6 CHECK YOUR UNDERSTANDING

WB PAGE 322

1. Distinguish between a trial balance and an adjusted trial balance.
2. 'If an adjusted trial balance balances, the net profit of a business will be calculated accurately.' Do you agree? Explain your answer.
3. The accounting system includes many different processes in both the recording and reporting phases. Rewrite the following list in sequential order, as they would occur in a double entry system.
   - Balance sheet
   - General ledger
   - Business documents
   - Trial balance
   - Income statement
   - General journal
   - Adjusted trial balance
   - Balance day adjustments

18 CHAPTER REVIEW

KEY CONTENT

- **[18.1]** Balance day adjustments adjust the balances of revenue and expense accounts so that they equal the revenue earned and expenses incurred. Such adjustments make it possible to create an accurate trial balance that reflects more than just cash flows.
- **[18.1]** Adjusting entries are made in revenue and expense accounts to make them equal to revenue earned and expenses incurred. Closing entries are used to close off the adjusted revenue and expense accounts to the Profit and Loss Summary account.
- **[18.2]** A prepaid expense exists when a payment relates to a future economic benefit because the item hasn't yet been consumed. On balance day, the relevant amount of expense is deducted from the period's revenue in order to determine an accurate profit. The remaining amount is retained as an asset.
- **[18.3]** Accrued expenses are those that have been incurred during a period but not yet paid. They remain as liabilities on balance day and must be recorded as such. When the amount owing is paid off, it should not be recorded as an expense in the new period.
- **[18.4]** Physical stocktakes are carried out on balance day. If necessary, an adjustment for an inventory loss or gain is also done at this time.
- **[18.6]** At the end of a period, a trial balance is prepared to ensure the accuracy of the double entries made. Once this is checked, balance day adjustments may be entered into the books. An adjusted trial balance is prepared after balance day adjustments have been entered in the accounts.

CHAPTER 18 EXERCISES

SPREADSHEET

1 Preparation of an income statement

WB PAGE 323

Ben Nguyen is the proprietor of Nguyen Robotics. He commenced business on 1 July 2022 and supplies the following information regarding his first year of business.

- Sales charged to customers totalled $120 000. Of this amount, all but $15 000 was received prior to 30 June 2023.
- Cost of sales for the year was $54 000.
- Advertising paid was $4000. An account for $1000 for advertising completed during June 2023 hasn't yet been paid.
- Insurance paid during the year was $3600, of which $400 relates to the period July September 2023.
- Office expenses for the year were $8000, and were all paid by 30 June 2023.
- The business premises were rented at a cost of $4000 per month. A total of $52 000 was paid during the year for rent.

a Prepare an income statement under the accrual method of accounting for the year ended 30 June 2023.

b Prepare an extract from the firm's balance sheet, showing the current assets that would be reported on 30 June 2023 under accrual accounting as a result of the above information.

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2 Preparation of an income statement

WB PAGE 324 SPREADSHEET

Melissa Mercuri, owner of Northcote Theatrical Lighting, supplies the following information relating to the quarter ended 31 March 2023.

- Cost of sales for the quarter was $22 000.
- Inventory loss amounted to $300.
- A three month advertising contract costing $6000 was paid on 1 February 2023.
- Wages paid for the quarter totalled $9000.
- A total of $1000 of vehicle expenses was paid during the quarter. Included in this was a yearly insurance premium of $480 paid on 1 March 2023.
- Depreciation of equipment for the quarter was $2000.
- Sales revenue earned was $46 000, including $5000 yet to be received.

Prepare an income statement for the quarter ended 31 March 2023 using the accrual method of accounting.

3 Preparation of an income statement

WB PAGE 325 SPREADSHEET

The manager of Dickenson's Books provides the following summary of the firm's transactions during 2023.

- Sales received totalled $88 000.
- Cost of sales for the year totalled $42 000.
- Wages paid to an assistant during the year were $29 000. A bonus of $1000 was earned by the employee during December but hadn't been paid by balance day.
- Depreciation of equipment for the year was $1200.
- Depreciation of office furniture was $800.
- Inventory as per stocktake was $22 000; balance of Inventory account: $19 800.
- Insurance paid was $1100. Prepaid insurance was $300 at 1 January 2023 and $400 at 31 December 2023.
- Cleaning expenses paid totalled $5200. On 31 December an amount of $300 was owing for cleaning.

a Prepare an income statement under the accrual method of accounting for the year ended 31 December 2023.

b List the items that would appear in the firm's balance sheet under the headings of 'Current assets' and 'Current liabilities'.

SPREADSHEET

4 Prepaid expenses: basic

WB PAGE 325

The owner of Caserta's Ice Skates paid $120 000, plus GST of $12 000, for six months' rent in advance on 1 May 2023. Balance day is on 30 June each year.

- **a** State the double entry that would be made when the payment occurred on 1 May 2023.
- **b** Prepare the adjusting and closing entries in the general journal that relate to the rent expense for the period that ends on 30 June 2023.
- **c** Prepare the Prepaid Rent account and the Rent Expense account, with all relevant entries.
- **d** Explain the purpose of the adjusting entry prepared in part **b** of this question.
- **e** State and explain the effect on the firm's accounting reports if the balance day adjustment for rent wasn't done.

SPREADSHEET

5 Prepaid expenses: advanced

WB PAGE 327

Max Kolbe is the proprietor of Splatter Paintball Supplies, a small business that owns three vehicles. The following ledger account records the yearly insurance premiums paid on these vehicles. The firm closes its books on 31 December each year.

Prepaid insurance

2023		$			$
1 Jan	Balance	750			
1 Apr	Cash at bank	900			
30 Jun	Cash at bank	900			
1 Nov	Cash at bank	900			

- **a** Calculate the insurance expense that would be reported under accrual accounting for the year ended 31 December 2023.
- **b** Prepare the Prepaid Insurance account, and record the adjusting and closing entries that would be made on 31 December 2023 if this firm used accrual accounting.
- **c** Explain the link between the adjusting entry prepared in part **b** above and the qualitative characteristic of relevance.
- **d** How is the balance sheet affected by the adjusting entry prepared in part **b**?

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6 Accrued expenses: basic

WB PAGE 328 SPREADSHEET

Rosehill Trading paid a total of $4200 for equipment repairs during 2023. On 31 December 2023, the business still has in its possession an account for repairs done during December. This account was for $1300 and hasn't been paid.

- **a** Prepare the adjusting and closing entries in the general journal that relate to the repairs expense.
- **b** Prepare the Equipment Repairs Expense account and Accrued Equipment Repairs account with all relevant entries on 31 December 2023.
- **c** Explain how the adjusting entry prepared in part **a** helps satisfy the period assumption.
- **d** State and explain the effect on the firm's reports if the balance day adjustment wasn't recorded.
- **e** On 31 January 2024, Rosehill Trading made a cash payment of $1430 in relation to equipment repairs. This amount included the $1300 owing as at 31 December 2023, plus the related amount of GST. Prepare the relevant entry in the general journal.
- **f** Post the entry made in your general journal to the Accrued Equipment Repairs account.

7 Accrued expenses: advanced

WB PAGE 330 SPREADSHEET

Alphington All Sports has an advertising contract with the local newspaper for a cost of $300 per month. During the year ended 30 September 2023, the business paid a total of $3000. The accounts for August and September 2023 haven't yet been settled. The Advertising Expense account in the general ledger appears as shown below.

Advertising expense

2023		$			$
Oct–Sep	Cash at bank	3 000			

- **a** State the amount of advertising expense that would be reported for the year ended 30 September 2023 under accrual accounting.
- **b** Prepare the adjusting journal entry that would be made on 30 September 2023.
- **c** Prepare the Advertising Expense account in the general ledger, including the required adjusting and closing entries.
- **d** State the two fold effect of the adjusting entry on the balance sheet.
- **e** On 31 October the business made a cash payment of $900, plus GST of $90. The $900 relates to advertising for the months of August, September and October 2023. Record this event in the relevant ledger accounts.

SPREADSHEET

8 Bad debts: basic

WB PAGE 331

Highpoint Hardware made a credit sale to B Riskee on 15 November 2022. The invoice price was $550, plus $55 GST, and this was entered into the Accounts Receivable account on 30 November 2022. The owner of Highpoint Hardware has chased Riskee for payment for several months, without success. On balance day, 30 June 2023, the owner decides to write off the account as a bad debt.

a Prepare the general journal entry required on 30 June 2023 to write off Riskee's debt, given that the allowance for doubtful debts has a balance of $1000.

b Explain the effect on the income statement and the balance sheet of Highpoint Hardware when the balance day adjustment is recorded.

SPREADSHEET

9 Bad debts: advanced

WB PAGE 332

The general ledger of Natural Nutrients included the accounts shown below.

After trying to track down I Nikov for almost two years, the owner of Natural Nutrients has just received legal advice that Nikov has been declared bankrupt. All of Nikov's debts are to be paid at 12 cents for each dollar owed, and a bank cheque was enclosed as a final payment. The business owner has decided to write off the remainder of Nikov's balance as irrecoverable.

a Prepare the adjusting entry required on 30 June 2023 to write off the Nikov account.

b Prepare the Nikov account to show both the receipt of cash from Nikov and the writing off of the account.

Accounts receivable – I Nikov

2021		$			$
31 Mar	Credit sales/GST clearing	1 260			

Allowance for doubtful debts

		$	2023		$
			30 Jun	Balance	1 000

c The owner of Natural Nutrients decides to increase the allowance for doubtful debts to $1500. Complete the Allowance for Doubtful Debts account, including the writing off of Nikov's account and the adjusting entry required to increase the allowance.

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10 From trial balance to balance sheet

WB PAGE 332 SPREADSHEET

The following trial balance was supplied by the owner of Shot Callers Streetwear.

SHOT CALLERS STREETWEAR: TRIAL BALANCE AS AT 31 DECEMBER 2023

	$		$
Cash at bank	2 500	Capital	68 000
Advertising	3 300	Sales	132 400
Inventory	51 000	Accounts payable	1 000
Term deposit (30/6/25)	26 000	Accumulated depreciation – office furniture	800
Office furniture	4 000	Accumulated depreciation – vehicle	6 000
Vehicle	32 000	Loan – DBC Finance	74 000
Prepaid insurance expense	3 400	GST clearing	1 000
Interest	6 400		
Cost of sales	65 800		
Drawings	6 400		
Rent	75 000		
Accounts receivable	6 000		
Telephone expense	740		
Stationery expense	660		
	283 200		283 200

Adjustments required

- Inventory as per stocktake as at 31 December 2023 was $50 000
- Prepaid insurance as at 31 December 2023 was $100
- Telephone expenses owing: $120
- Depreciation vehicle: 25% per annum on cost
- Office furniture: 20% per annum, reducing balance method

a Prepare all adjusting and closing entries for the general journal on 31 December 2023.

b Prepare the following general ledger accounts, including any necessary adjusting and closing entries: Prepaid Insurance Expense, Telephone Expense, and Inventory.

c Prepare an adjusted trial balance as at 31 December 2023.

d Prepare an income statement for the year ended 31 December 2023 and a classified balance sheet at that date.

e The business paid $300, plus GST of $30, for telephone expenses on 15 January 2024, which included the $120 owing from December 2023. Prepare the required entry in the general journal on 15 January 2024.

SPREADSHEET

11 Reports with adjustments, including doubtful debts

WB PAGE 337

The following trial balance relates to the business of Prints Charming, a small business owned and managed by Alanah Douglas.

PRINTS CHARMING: TRIAL BALANCE AS AT 30 SEPTEMBER 2023

	$		$
Cash at bank	5200	Capital	112000
Advertising	1200	Cash sales	54000
Accounts receivable	12700	Credit sales	35500
Cost of sales	49600	Accumulated depreciation – equipment	6600
Equipment	22000	Accumulated depreciation – vehicle	12000
Assistant's wages	23000	Loan – MT Finance	38000
Interest on loan	1880	Accounts payable	10000
Inventory	44500	Commission revenue	200
Drawings	14600	GST clearing	3500
Telephone expense	680	Allowance for doubtful debts	1 500
Rent	44600		
Stationery expense	500		
Vehicle	48000		
Electricity	850		
Prepaid insurance expense	2 750		
Equipment repairs	1240		
	273300		273300

Adjustments required

- One of the credit clients of the business has been declared bankrupt. The total amount of $1700 owing by D Crepit is to be written off.
- After writing off D Crepit's account, the owner of Prints Charming has decided to increase the allowance for doubtful debts to $2000.
- Insurance paid in advance as at 30 September 2023: $150.
- Interest owing on loan: $120.
- The owner gave some colour prints to the local kindergarten for a fundraising auction and received some advertising during the event. The goods provided had a cost price of $500 and a selling price of $950. As yet, no entry had been made to record this event.
- Depreciation of equipment: 15% per annum on cost.
- Depreciation of vehicles: 25% per annum reducing balance method.
- Physical stocktake as at 30 September: $42 900.
- On 30 September 2023 the owner realised that a payment of $200 for wages was accidentally debited to advertising.

a Prepare an income statement, taking into account all adjustments required.

b Prepare a classified balance sheet as at 30 September 2023.

c State the double entry that results when the interest owing is paid on 3 October 2023.

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12 Reports with adjustments, including doubtful debts

WB PAGE 338

The proprietor of One Stop Geocaching supplies the following information relating to her business.

ONE STOP GEOCACHING: TRIAL BALANCE AS AT 30 JUNE 2023

	$		$
Accounts receivable	23 850	Accumulated depreciation – office equipment	580
Advertising	3200	Accumulated depreciation – shop fittings	1 760
Cleaning expenses	4060	Allowance for doubtful debts	2 800
Cost of sales	75 800	Bank	14 370
Drawings	10 900	Capital	304 600
Interest expense	31 300	GST clearing	6000
Inventory	48 520	Interest revenue	1 560
Investment account	15 700	Mortgage loan	670 000
Office equipment	5 800	Sales revenue	121 780
Office expenses	3140		
Premises	852 000		
Prepaid insurance expense	3800		
Rates	2600		
Salaries	31 240		
Sales returns	1 280		
Shop fittings	8800		
Stationery expense	580		
Telephone expense	880		
	1 123 450		1 123 450

Adjustments required

- Depreciation office equipment: 20% per annum, reducing balance method.
- Depreciation shop fittings: 20% per annum on cost.
- Insurance expired during period: $3200.
- An account for $800 for cleaning done during June 2023 hasn't yet been paid and is not included in the above accounts.
- It's been discovered that $200 of advertising has been incorrectly debited to the Interest Expense account.
- The physical stocktake conducted on 30 June 2023 showed total inventory on hand of $49 200.
- One debtor, who owes $3600, has to be written off as irrecoverable.
- The allowance for doubtful debts is to be increased to 3% of net sales.

a Prepare an income statement for the year ended 30 June 2023, showing clearly the gross and net profit earned by the business.

b Prepare a classified balance sheet as at 30 June 2023.

CASE STUDY

WB PAGE 340

Nigella Cook is the owner of Chefmaestro Kitchen Products. The trial balance of her general ledger accounts at the end of a year's trading is shown below.

CHEFMAESTRO KITCHEN PRODUCTS: TRIAL BALANCE AS AT 30 JUNE 2023

	$		$
Accounts receivable	4 420	Accounts payable	12 500
Advertising	2 280	Accumulated depreciation	
		– display equipment	1 460
Bank	2 130		
Carriage inward	2 010	Accumulated depreciation	
		– office furniture	480
Carriage outward	2 620		
Carry bags expense	1 920	Allowance for doubtful debts	1 600
Cleaning of shop	2 020	Bank loan	223 000
Cost of sales	58 200	Capital	193 560
Council rates	2 400	Cash sales	86 100
Discount expense	1 020	Credit sales	32 100
Display equipment	14 600	Discount revenue	1 200
Drawings	17 000	GST clearing	3 500
Electricity	1 420		
Interest expense	18 000		
Inventory	52 800		
Office expenses	1 500		
Office furniture	1 600		
Postage	1 030		
Premises	340 000		
Prepaid insurance expense	3 600		
Telephone expenses	1 430		
Wages	23 500		
	555 500		555 500

Additional information

- The insurance premium was for 12 months' coverage and was taken out on 1 August 2022.
- An account for $120 for electricity for the month of June has been received but not yet paid. It will be paid on 4 July 2023.
- A physical stocktake performed on 30 June 2023 was checked against the firm's inventory cards. Discrepancies were found to exist on three different inventory cards:

Item	Inventory card balance: FIFO	Stocktake
Digital scales	11 @ $28 25 @ $29	30 on hand (selling price $59.95)
Electric frypans	6 @ $68 10 @ $72	14 on hand (selling price $139.50)
Three-litre saucepans	30 @ $24	31 on hand (selling price $45.00)

- It was discovered that the owner had withdrawn $640 from the business on 26 June. No entry has been made to account for this transaction.
- A review of the cheque book of the business has revealed that $40 paid for postage on 2 June 2023 has been incorrectly recorded in the firm's journal as a telephone account.
- The bank loan is repayable at the rate of $400 per week.
- Depreciation is required as follows: display equipment 20% on cost; office furniture 15% on cost.
- One of the firm's accounts receivable, Con Spiracee, is to be written off as a bad debt. He owed $1000.
- The allowance for doubtful debts is to be decreased to $1200.

a Prepare general journal entries for all adjustments required on 30 June 2023.

b Prepare closing entries in the general journal on 30 June 2023.

c Complete the following general ledger accounts, including all relevant entries to account for the stated information: Prepaid Insurance Expense, Insurance Expense, Accrued Electricity, Electricity Expense, and Inventory.

d Complete the Profit and Loss Summary account as it would appear in the general ledger.

e Prepare the first section of the income statement to determine the gross profit and the adjusted gross profit of the business for the year. (The full report isn't required.)

f Prepare a balance sheet as at 30 June 2023.

g Explain your treatment of the insurance premium, with reference to one qualitative characteristic of accounting.

h Refer to the item regarding the withdrawal of cash by the owner. Justify your treatment of this item, with reference to one accounting assumption.

i Taking into account the information regarding the physical stocktake, comment on the management of the inventory held by the business.

j Comment on the level of profit earned by the business over the last 12 months.

CHAPTER CHECKLIST

Now that you have finished Chapter 18, double check your progress.
Are you ready for your Unit 4 exam?

I have …

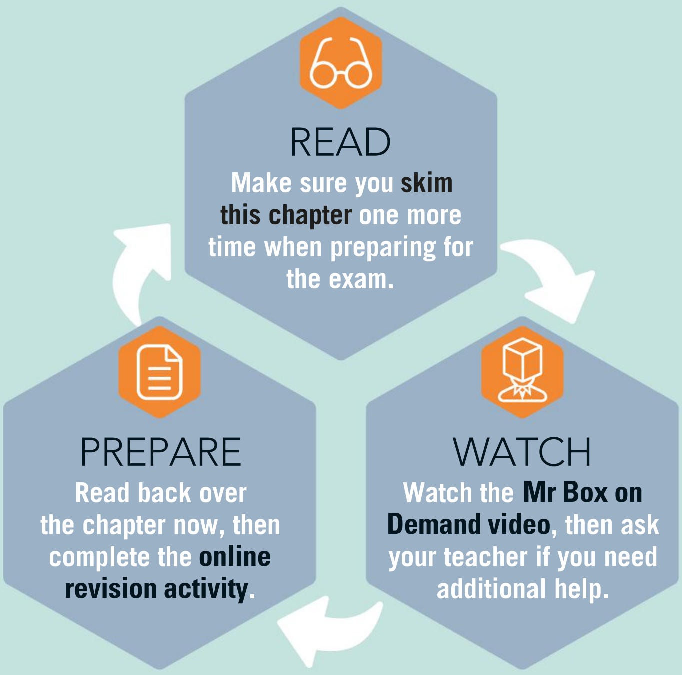
- completed all 'Check Your Understanding' questions
- completed all exercises
- completed the end of chapter activities
- handed in my workbook for marking.

I understand …

- the recording of transactions in the General Journal and General Ledger and preparation of classified accounting reports using manual methods and ICT
- the recording and reporting of balance day adjustments:
  - prepaid expenses (asset approach) with GST being recorded at the time of payment
  - accrued expenses with GST being recorded at the time of payment
  - the payment of accrued expenses in the subsequent reporting period
- the purpose and preparation of an adjusted Trial Balance
- characteristics and use of classified accounting reports: Cash Flow Statement.

I can …

- prepare an adjusted Trial Balance
- analyse the effect of financial transactions on the accounting reports
- analyse the effect of balance day adjustments on accounting reports.



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19 UNEARNED AND ACCRUED REVENUE

In Chapter 18 you looked at the process of determining whether a business has made a profit. This process is made harder when revenue is earned in one reporting period but isn't actually obtained until the next period.

In this chapter you will look at how unearned and accrued revenue affects how we determine profit, and how to adjust the general ledger and general journal to account for such revenue.

LEARNING OBJECTIVES

By the end of this chapter, you will be able to:

- outline the meaning of the terms 'unearned revenue' and 'accrued revenue' [19.1]
- prepare balance day adjustments in the general journal for both unearned revenue and accrued revenue [19.1]
- prepare entries in the general ledger for unearned revenue using the liability approach [19.1]
- describe the two fold effect that adjustments for unearned revenue and accrued revenue have on the balance sheet [19.2 & 19.3]
- explain the effect that balance day adjustments for unearned revenue and accrued revenue have on the income statement [19.2 & 19.3]
- describe the treatment of accrued revenue in a subsequent period when the revenue is actually received [19.3]
- prepare accounting reports, taking into account balance day adjustments for unearned revenue and accrued revenue [19.3].

19.1 UNEARNED REVENUE

WHAT IS 'REVENUE EARNED FOR A PERIOD'?

In Chapter 18, you learnt about balance day adjustments for expenses. Adjustments were made for expenses paid in advance (prepaid expenses), expenses not yet paid (accrued expenses), depreciation of non current assets, and stock losses or gains. The adjustments were made so that the account balances were equal to the amounts *incurred* during a period, rather than simply reflecting the amounts *paid* during that period.

The same scenario exists regarding the revenue of a business. When a trial balance is prepared, the accounts usually reflect the cash transactions that took place during the reporting period. Some small businesses only sell for cash, so their situation is straightforward: they provide goods and then receive cash in return. The balance of their Cash Sales account will likely equal the revenue they earned for the period.

However, this isn't always the case. Take the example of an airline. Passengers make bookings well in advance for trips they plan to take in the future. They pay cash up front, which the airline accepts for a future booking so cash is paid in advance on the promise of something in the future. At any point in time, this type of business may hold large amounts of cash that it hasn't yet earned. Should this cash be treated as revenue?

The principle of accrual accounting says 'no', as the business hasn't yet fulfilled its obligation to provide the goods or services customers have paid for. In other words, the business hasn't yet earned its revenue.

Businesses like airlines are paid in advance before providing goods or services.

A second scenario occurs when a business has earned revenue but hasn't yet received it. If a business has cash invested in a term deposit, but doesn't receive interest until the maturity date, no interest revenue will be received during the period. Should this revenue be ignored simply because it hasn't yet been received?

Accrual accounting requires *all* revenue earned to be reported in the income statement. But revenue that hasn't yet been received won't show up in a trial balance when the accounts are checked at the end of the period. This situation also needs to be taken into account when determining a business's profit.

As you can see, it's possible that, in a given period, some revenue will be received in advance and some may not be received at all. It may therefore be necessary to make adjustments on balance day in order to determine revenue earned for that period. This follows the qualitative characteristic of *relevance*, as revenue earned is relevant to decision making for the current period.

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THE LIABILITY APPROACH

A business may receive revenue before it has performed services or supplied goods to its customers. That is, the revenue it receives during one reporting period may include amounts that have been paid in advance for a subsequent period.

The **liability approach** to unearned revenue says that revenue received that relates to a future period shouldn't be included in the current period's profit calculation. Although this inflow of resources may appear to meet the definition of revenue, if it has been received in advance, the firm has actually created an obligation of future economic sacrifice that is, it fits the definition of a *liability*.

liability approach
a method of accounting where the initial receipt of revenue is treated as a liability, with a subsequent transfer of the amount earned to a revenue account

The liability may be in the form of goods or services to be provided in the future. However, if the business is unable to fulfil its obligations, it may take the form of a cash refund.

This problem is similar to the question of whether prepaid insurance is an asset or an expense. As you saw in Chapter 18, it's all a matter of timing. An asset becomes an expense when it's used up or consumed. Insurance paid in advance is treated as an asset (Prepaid Insurance) because it has future economic value. As it's used up, the asset Prepaid Insurance is eliminated and the amount is transferred to the expense account Insurance, because it's now viewed as a sacrifice of resources during the period.

In the case of revenue received in advance, a future commitment is created and therefore a liability exists. As this commitment is fulfilled, the liability is eliminated and the revenue can then be recognised as being earned.

UNEARNED REVENUE

Unearned revenue is simply revenue received but not yet earned. Unearned revenue, or revenue received in advance, may be unusual for many small businesses, but some do receive their money in advance of goods or services being provided.

unearned revenue
revenue that has been received in advance but not yet earned

Consider the case of East Coast Coaches, a bus company that offers prepaid interstate fares. As the prepaid fares represent a liability to the business, it credits them to a liability account when it receives the cash. This account should have a descriptive title, such as 'Unearned Bus Fares Revenue', to indicate the nature of what it has received.

The focus then switches to the adjustment required on balance day. Accrual accounting requires that revenue earned is matched with expenses incurred, but the bus fares were credited to a liability account when they were received. The next step is to transfer out of the liability account the amount of revenue that has been earned during the current period.

Payments received in advance, such as prepaid fares, should be credited to a liability account.

East Coast Coaches has the following financial records at the end of 2023.

Total bus fares received during 2023	$90 000
Bus fares paid in advance for trips in 2024	$10 000

Using these details, the situation on balance day is as follows.

Total bus fares received	$90 000
Bus fares revenue earned in 2023	$80 000
Unearned bus fares for 2024	$10 000

Only $80 000 of the $90 000 is recognised as revenue for 2023. The other $10 000 remains as a liability, because it represents a future commitment or obligation of the business.

The Unearned Bus Fares Revenue account below has entries for both the original cash receipts and the necessary adjusting entry on 31 December 2023.

Unearned bus fares revenue

2023		$	2023		$
1 Dec	Bus fares revenue	80 000	Jan–Dec	Cash at bank	90 000

Bus fares revenue

			2023		$
			1 Dec	Unearned bus fares revenue	80 000

The adjusting entry transfers the amount of revenue earned from the liability account (Unearned Bus Fares Revenue) to the revenue account (Bus Fares Revenue).

The revenue account now has the revenue earned for the period, ready to be closed off to the Profit and Loss Summary account. The liability account can then be balanced, ready to be reported in the firm's balance sheet.

The closing of the revenue account and the balancing of the Unearned Bus Fares Revenue account are shown below.

Unearned bus fares revenue

		$			$
2023			2023		
31 Dec	Bus fares revenue	80 000	Jan–Dec	Cash at bank	90 000
	Balance	10 000			
		90 000			90 000
			2024		
			1 Jan	Balance	10 000

Bus fares revenue

		$			$
2023			2023		
31 Dec	P&L summary	80 000	31 Dec	Unearned bus fares revenue	80 000

As usual, all general ledger entries must be journalised before being posted to ledger accounts. Figure 19.1 shows the adjusting and closing entries for the example of unearned revenue.

FIGURE 19.1 General journal adjusting and closing entries for unearned revenue

GENERAL JOURNAL

Date	Details	Dr	Cr
31 Dec 2023	Unearned bus fares revenue	80 000	
	Bus fares revenue		80 000
	Adjusting entry for bus fares earned during the period		
31 Dec	Bus fares revenue	80 000	
	P&L summary		80 000
	Closing entry		

This treatment of unearned revenue responds to the demands of *relevance*. Under accrual accounting, the fares received in advance for 2024 ($10 000) aren't relevant to the period that concludes on 31 December 2023. They should therefore be excluded from the income statement for that period. Such fares will remain in the liability account until the firm has fulfilled its obligations.

When the prepaid customers take their trip, the revenue is transferred from the liability account to the revenue account. This means that the revenue will be recognised in the same period as when the *expenses* of the bus trips are incurred, which satisfies the demands of accrual accounting.

This practice of not recognising revenue until it's earned, as well as matching revenue against the relevant expenses, allows for profit for a period to be measured accurately. It thus meets the requirements of the *period assumption*.

UNEARNED REVENUE AND GST

The previous example showed how unearned revenue should be treated on balance day. However, keep in mind that when a business receives revenue (including unearned revenue), it may also receive an amount of GST.

In the example, the unearned bus fares received were $90 000. When we apply the 10% GST to this amount, we see that the business would have actually received $99 000 that is, $90 000 for the actual bus fares, plus GST of $9000.

The GST should be recorded in the general journal at the time the cash is received see Figure 19.2.

FIGURE 19.2 General journal entry to record the receipt of unearned revenue, including GST

GENERAL JOURNAL

Date	Details	Dr	Cr
31 Dec 2023	Cash at bank	99 000	
	Unearned bus fares revenue		90 000
	GST clearing		9 000
	Bus fares revenue received in advance		

19.1 CHECK YOUR UNDERSTANDING

WB PAGE 347

1 Explain what the term 'unearned revenue' means.
2 How is unearned revenue classified in a balance sheet? Justify this treatment.
3 Explain the 'liability approach' that is used to record unearned revenue.

19.2 UNEARNED SALES REVENUE

Most trading businesses don't receive a great deal of their revenue in advance, as customers usually prefer to receive goods at the time they pay for them.

However, in some industries a customer may pay a deposit to secure an order. If a business receives a deposit from a customer before supplying the goods to them, it represents a liability to the business at that time. It may issue a receipt on receiving the deposit and then a sales invoice when the goods are delivered. These source documents are important, as they help to determine how such financial events will be recorded.

For instance, Cara Johnston owns Peninsula Furniture, a small business that makes a range of furniture to the specifications of the customer. The following events take place.

1 June: Hillside Motel placed an order for 20 coffee tables at a price of $200 each, plus $20 GST. Total of the order: $4000, plus $400 GST. Johnston required a deposit of 20% of the selling price to secure the order, and wrote receipt no. 43 for $800 (20% of $4000 = $800).

30 June: Johnston delivered the 20 coffee tables to Hillside Motel, along with invoice no. 160 for the amount owing, as shown below. (The cost of the sale was determined to be $1800.)

20 coffee tables @ $200 each	$4000
Plus 10% GST	$ 400
Total of order	$4400
Less deposit	$ 800
Total now due	$3600

15 July: Hillside Motel made a payment of $3600 via EFT (Receipt 56).

This series of events are recorded in the books of Peninsula Furniture.

DON'T!
When recording a deposit, do not record any GST received.

RECORDING UNEARNED SALES REVENUE

The first step is to record the receipt of the deposit, as shown in Figure 19.3.

FIGURE 19.3 General journal entry to record a deposit on unearned sales

GENERAL JOURNAL

Date	Details	Dr	Cr
1 Jun 2023	Cash at bank	800	
	Unearned sales revenue		800
	Deposit of 20% on 20 coffee tables received from Hillside Motel (Receipt 43)		

Note that there is no GST recorded in this entry. The $800 received from Hillside Motel is simply to secure the order. At this point, no goods have been provided and no revenue has been earned.

The entry in the general journal creates the liability account Unearned Sales Revenue. Having received $800 in advance from the customer, Peninsula Furniture now has an obligation to provide goods to Hillside Motel. If it can't fulfil the order, a cash refund may be due to the customer.

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A deposit paid before delivery is considered unearned sales revenue.

On 30 June the goods are delivered to Hillside Motel, along with a sales invoice. This creates the need for another journal entry. Assuming that this date is also the end of the reporting period, a balance day adjustment is required to transfer the unearned sales revenue (the deposit) to the Sales Revenue account. Figure 19.4 shows the adjusting entry required on 30 June.

FIGURE 19.4 **General journal entry to adjust for unearned revenue now earned**

GENERAL JOURNAL

Date	Details	Dr	Cr
30 Jun 2023	Unearned sales revenue	800	
	Sales revenue		800
	Adjusting entry for sales revenue earned this period		

As the coffee tables have now been provided to the customer, Peninsula Furniture's liability to Hillside Motel no longer exists and the $800 can now be recognised as revenue earned for the period.

However, this entry doesn't complete the full series of events, as the customer was also issued with an invoice on 30 June. This document specified the full charge to the customer ($4000, plus GST of $400), the deposit already paid ($800) and the amount that remains outstanding ($4400 $800 = $3600).

Figure 19.5 shows the final entry required to complete the sale made to Hillside Motel.

FIGURE 19.5 **General journal entry to record a credit sale**

GENERAL JOURNAL

Date	Details	Dr	Cr
30 Jun 2023	Accounts receivable	3 600	
	Sales revenue		3 200
	GST clearing		400
	Cost of sales	1 800	
	Inventory		1 800
	Credit sale made to Hillside Motel, after deducting deposit of $800 (Invoice 160)		

This may look like a standard entry for a credit sale, but there is one noticeable difference. Usually in such an entry, the GST amount is a dollar value equal to 10% of the Sales Revenue entry. This isn't the case here, because Peninsula Furniture already received $800 of sales revenue in the form of the deposit made on 1 June. As shown in the previous calculation, the customer owes a total of $3600 to Peninsula Furniture, and this amount is reflected in the entry.

Having recorded the credit sale and the balance day adjustment for the unearned revenue (the deposit), the final transaction to be recorded is the cash receipt on 15 July. As Hillside Motel became an accounts receivable of Peninsula Furniture on 30 June (when the invoice was issued), the final payment of $3600 is recorded in the usual way, as shown in Figure 19.6.

FIGURE 19.6 General journal entry to record the receipt of cash from an accounts receivable

GENERAL JOURNAL

Date	Details	Dr	Cr
15 Jul 2023	Cash at bank	3 600	
	Accounts receivable		3 600
	Received cash from Hillside Motel (Receipt 56)		

19.2 CHECK YOUR UNDERSTANDING

WB PAGE 348

1. If a business involved in publishing magazines uses the liability approach to record unearned subscriptions revenue, state the double entry required on balance day to adjust for revenue earned.
2. If no adjusting entry is made on balance day for unearned revenue, would profit be overstated or understated? Explain your answer fully.
3. When a deposit is received by a trading business, what double entry should it make in the general ledger?

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19.3 ACCRUED REVENUE (REVENUE OWING)

Another situation that may exist on balance day is when a business earned revenue during the reporting period but hasn't yet received it. If the revenue earning process has ended, the principles of accrual accounting require that the revenue be recognised as earned.

Consider the case of Dinosaur Direct, a business that invests $20 000 for six months on 1 July 2023 at 10% per annum, payable on 2 January 2024. If Dinosaur Direct has its balance day on 31 December 2023, the trial balance won't show a balance in the Interest Revenue account because interest won't be received during 2023.

However, Dinosaur Direct has earned $1000 of interest in the 2023 reporting period (10% of $20 000 = $2000 interest per annum, or $1000 interest for six months). The double entry for the balance day adjustment would be as follows.

Interest revenue

		$	2023		$
			31 Dec	Accrued interest revenue	1 000

Accrued interest revenue

2023		$			$
31 Dec	Interest revenue	1 000			

This adjusting entry has two functions:

- it increases the revenue account so that the revenue equals the amount earned for the period
- it creates a temporary asset account for the purposes of reporting in the balance sheet.

Accrued revenue represents revenue that has been earned but hasn't yet been received. Therefore, it's a future economic benefit to Dinosaur Direct and should be reported as a current asset in the balance sheet. The Interest Revenue account would then be closed off to the Profit and Loss Summary account:

accrued revenue
revenue that has been earned but not yet received

Interest revenue

2023		$	2023		$
31 Dec	P&L summary	1 000	31 Dec	Accrued interest revenue	1 000

After the balance day adjustment has been entered in the Interest Revenue account, the balance of the account represents the interest revenue earned for the period. This is closed off to the Profit and Loss Summary account as part of the profit determination process.

This completes the process for the current reporting period.

The adjusting and closing entries are shown in the general journal in Figure 19.7.

FIGURE 19.7 General journal adjusting and closing entries for accrued revenue

GENERAL JOURNAL

Date	Details	Dr	Cr
31 Dec 2023	Accrued interest revenue	1 000	
	Interest revenue		1 000

	Adjusting entry for six months' interest earned but not received		
31 Dec	Interest revenue	1 000	
	P&L summary		1 000
	Closing entry		

ACCRUED REVENUE IN SUBSEQUENT PERIODS

An Accrued Interest Revenue account was created for Dinosaur Direct for the interest earned during 2023. The $1000 listed at that time would be reported in the balance sheet as a current asset. This revenue would actually be received in the next period (i.e. 2 January 2024).

When the revenue owing is received, it must not be recorded as revenue in the new period. Figure 19.8 shows how the revenue would be correctly recorded and reported for both 2023 and 2024.

FIGURE 19.8 **General journal entry to record the receipt of accrued revenue**

GENERAL JOURNAL

Date	Details	Dr	Cr
2 Jan 2024	Cash at bank	1 000	
	Accrued interest revenue		1 000
	Receipt of accrued interest revenue earned in the previous period		

The receipt of $1000 must not be credited to Interest Revenue, as it belongs to the 2023 period. To help ensure this, use an account with a descriptive title such as 'Accrued Interest Revenue', rather than a generic title such as 'Accrued Revenue'. This allows for the revenue still owing to be easily determined. When it's received in the subsequent reporting period, the Accrued Interest Revenue account can be eliminated.

When the cash receipt of the interest occurs, the Accrued Interest Revenue account appears as below.

Accrued interest revenue

2023		$	2024		$
31 Dec	Interest revenue	1 000	2 Jan	Cash at bank	1 000

ACCRUED REVENUE WITHIN A RECEIPT

Sometimes, when accrued revenue is received in a subsequent reporting period, it may be part of a larger cash receipt. This payment may include revenue that relates to the new period, in addition to the amount owing from the previous period.

In the Dinosaur Direct example, $1000 was the interest owing from the previous period. This amount was then received in the subsequent reporting period. However, you should also be prepared to record the receipt of revenue in excess of this amount.

The following example demonstrates this situation.

Commission earned during June 2023 but not received	$500
Commission received on 31 July 2023 (including the $500 owing)	$600 (plus $60 GST)

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The $600 received on 31 July can be broken into two parts: $500 is the amount owing from the previous period, while $100 relates to commission earned during the new period.

In this case, it's important to record the two amounts separately:

- The $500 owing is closed off in the asset account (Accrued Commission Revenue).
- The other $100 is recorded in the Commission Revenue account for the new period.

The GST received should be recorded in the usual way.

The entries are as follows.

Accrued commission revenue

		$			$
30 Jun	Commission revenue	500	31 Jul	Cash at bank	500

Commission revenue

		$			$
			31 Jul	Cash at bank	100

GST clearing

					$
			31 Jul	Cash at bank	60

The Accrued Interest Revenue account that was created on balance day must be closed off when the cash is received. The remainder of the cash received by the business is then recorded in the relevant revenue account for the new period, with the GST (if applicable) recorded in the usual fashion.

The journal entry for this example is shown in Figure 19.9.

FIGURE 19.9 General journal entry to record the receipt of accrued interest revenue

GENERAL JOURNAL

Date	Details	Dr	Cr
31 Jul 2023	Cash at bank	660	
	Accrued interest revenue		500
	Commission revenue		100
	GST clearing		60
	Receipt of accrued interest revenue earned in the previous period		

19.3 CHECK YOUR UNDERSTANDING

WB PAGE 348

1 What is accrued revenue? How is it classified in a balance sheet?

2 A business has earned commission revenue during a period but hasn't received it by balance day. State the double entry required as a balance day adjustment to account for this item.

3 The commission earned in Question **2** was received in the first week of the subsequent reporting period. State the double entry that will be made when the commission is received by the business.

19 CHAPTER REVIEW

KEY CONTENT

- [19.1] In a given reporting period, some revenue may be received in advance; this is called unearned revenue. Other revenue may not be received until the next reporting period; this is called accrued revenue. Balance day adjustments are needed to account for such revenue.
- [19.1] The liability approach to unearned revenue holds that any revenue received that relates to a future period should not be included in the current period's profit calculation. Instead, it should be recorded as a liability.
- [19.2] Deposits are the most common form of unearned revenue for a trading business. These should also be recorded as liabilities. If the customer doesn't receive their item, the business must return the deposit.
- [19.3] Accrued revenue that has yet to be received is a future economic benefit for a business. It should therefore be reported as a current asset in the balance sheet.

CHAPTER 19 EXERCISES

SPREADSHEET

1 Unearned revenue – amount unearned provided

WB PAGE 349

Marble Memorials sells custom made headstones to cemeteries on a prepaid basis. In the quarter ended 31 March 2023, the business receives $42 000 in advance payments for headstones. Of this amount, $4000 relates to headstones to be delivered in the month of April 2023. The business uses the liability approach to record revenues received in advance.

a State the amount of revenue that would be reported for the quarter ended 31 March 2023 under accrual accounting.

b Prepare the general journal entries required to record the adjusting and closing entries relating to the sales revenue for the quarter.

c Prepare all the relevant entries for the quarter ended 31 March 2023 that would be made to the Unearned Sales Revenue and Sales Revenue accounts.

d State and explain the effect on the firm's reports if the balance day adjustment wasn't recorded.

SPREADSHEET

2 Unearned revenue – amount unearned provided

WB PAGE 350

The following account appeared in the general ledger of City Real Estate.

Unearned rental revenue

		$			$
			2022		
			1 Jul	Balance	5 000
			2023		
			Jul–Jun	Cash at bank	90 000

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On 30 June 2023 the manager determined that the unearned revenue totalled $8000.

a Explain what the $5000 balance shown in the above account represents on 1 July 2022.

b Prepare the adjusting and closing entries in the general journal on 30 June 2023.

c Prepare the Unearned Rental Revenue account and post all general journal entries prepared in part **a**.

3 Unearned revenue – amount earned provided

WB PAGE 351 SPREADSHEET

Custom Canopies sells custom made modifications for utility vehicles. Because of the nature of the business, it requires customers to prepay all orders. During the year ended 30 September 2023, the business received a total of $234 000 from its customers. The manager determined that $222 000 of this amount had been earned by the end of the period.

a Prepare the relevant adjusting and closing general journal entries on 30 September 2023.

b Prepare the two accounts affected by your adjusting entry in part **a**, showing all relevant entries.

c Is the balance sheet affected by your adjusting entry in part **a**? If so, state the two fold effect of the adjusting entry.

d State the effect of your adjusting entry in part **a** on the firm's income statement.

4 Unearned revenue – amount earned provided

WB PAGE 352 SPREADSHEET

Dani Dothraki owns Cosmeti Crate, a business that sends out monthly curated packages of makeup and beauty materials. Subscribers must pay $120 per year, plus GST of $12, for 12 packages. During the year ended 30 June 2023, Dothraki received a total of $52 800, consisting of subscriptions of $48 000, plus GST. On balance day, she establishes that $36 000 of the revenue received has been earned.

a Prepare the entry in the general journal to show how the $52 800 would have been recorded when the cash was received.

b Complete the necessary adjusting and closing entries in the general journal on 30 June 2023.

c Prepare the Unearned Subscriptions Revenue and Subscriptions Revenue accounts, showing all entries for the period ending 30 June 2023.

d How should the amount not yet earned be reported on 30 June 2023? Explain your answer fully, with reference to the relevant definitions of balance sheet terms.

5 Unearned revenue – deposit received

WB PAGE 353 SPREADSHEET

Beds 'R Us received an order for 10 single beds at a price of $450 each, plus GST, from Downtime Holiday Resort on 11 November 2023. The customer paid a deposit of $500 on this date to confirm the order. Receipt no. 53 was issued to the customer. No GST was received at the time the order was confirmed. The cost price of the beds was $250 each.

On 28 December 2023, Beds 'R Us delivers the 10 beds to Downtime Holiday Resort and issues invoice no. 726 for $4500, plus GST of $450, less the deposit already received in November. The reporting period for this business ends on 31 December each year.

a Prepare the journal entry required on 11 November 2023 to record the deposit received from Downtime Holiday Resort.

b Record the relevant entry in the journal on 28 December 2023 when the delivery was made to the customer.

c Prepare the required balance day adjustment in the general journal on 31 December 2023 in relation to the unearned revenue received by Beds 'R Us.

SPREADSHEET

6 Unearned revenue – deposit received

WB PAGE 354

Peter Mitchell is the owner of Mitchell Education, a small business that provides a range of educational teaching aids. The reporting period for Mitchell's business runs from 1 July to 30 June each year.

Moonga College recently ordered 20 whiteboards from Mitchell Education. The order was placed, along with a deposit of $2000, on 14 April 2023. The selling price of the whiteboards was $800 each (plus GST), while the cost price was $370 each (plus GST).

On 24 June 2023, the 20 whiteboards are delivered to Moonga College, and Mitchell Education issues invoice no. 1763.

a Prepare the journal entry required to record the deposit received from Moonga College.

b Prepare the adjusting entry required on 30 June to transfer unearned revenue to the Sales Revenue account.

c Record the relevant entry in the general journal on 24 June when Invoice 1763 was issued.

SPREADSHEET

7 Unearned revenue – deposit received, order partially completed

WB PAGE 354

The owner of Pearson Electronics, Belinda Pearson, asks you to help her record some recent transactions with one of her customers.

On 12 August 2023, Pearson accepted an order to provide 10 data projectors to Kolbe University at a price of $3200 per projector, plus $320 GST. Pearson agreed to provide the goods, but required a payment of 10% of the selling price to secure the order. She received this deposit from Kolbe University on 14 August 2023 and sent Receipt 97 to the customer. The reporting period for Pearson Electronics ends on 30 September each year. The business applies a mark up of 100% to all goods sold.

The data projectors required by Kolbe University are in short supply, but by 30 September Pearson managed to obtain six units and these were delivered to Kolbe on that date, along with the following document.

Pearson Electronics — ABN: 31 789 756 433
9189 Bell Street — Date: 30/9/2023
Coburg VIC 3058 — **Tax Invoice no: 746**
Charge: Kolbe University

For: 6 deluxe data projectors @ $3200 per unit	$19 200
Plus: GST	$1 920
Sub-total	$21 120
Less: deposit received	$3 200
Amount now due	$17 920

The other four data projectors were finally delivered to Kolbe on 21 October 2023, and Invoice 756 was issued on that date.

a Prepare the general journal entry required to record the deposit received from Kolbe University.

b Prepare the general journal adjusting entry required on 30 September in relation to unearned sales revenue.

c Record the credit sale made on 30 September 2023 in the general journal.

d Record the credit sale evidenced by Invoice 756 on 21 October 2023.

8 Accrued revenue

WB PAGE 355 SPREADSHEET

On 1 April 2023, Brooklyn Bicycles invests $8000 in 6% state government bonds for three years. The business will receive interest on 31 March each year. Balance day is 31 December. The owner of the business asks for your help in calculating interest revenue earned for 2023.

- **a** Prepare the adjusting entry required in the general journal on 31 December 2023 and the closing entry that would follow.
- **b** Post the general journal entries from part **a** to the Interest Revenue and Accrued Interest Revenue accounts.
- **c** State the two fold effect of the adjusting entry in part **a** on the balance sheet of the business.
- **d** Prepare the general journal entry on 31 March 2024 when the business receives the annual interest from the bank.

9 Accrued revenue

WB PAGE 356

Deborah Barker invests excess cash from her business in a term deposit paying 5% per annum. She invested $10 000 on 1 July 2023 for two years. Her balance day each year is 31 December, and interest is paid on 30 June.

- **a** How much interest has been earned in the year ending 31 December 2023?
- **b** How much interest has been received in the year ended 31 December 2023?
- **c** Explain how these events should be treated in the income statement and balance sheet at the end of 2023.

10 Accrued revenue – effect on reports

WB PAGE 357

The owner of Emjay Salon, Maree Johnson, decides to take out a term deposit for four years, starting on 1 November 2020. The bank has agreed to pay her 4.5% for a minimum investment of $30 000. Its policy is to pay interest on all term deposit accounts on 31 March, 30 June, 30 September and 31 December each year. Johnson agreed to these terms and invested $30 000. Her reporting period ends on 30 June each year.

- **a** Calculate how much interest would be received in the yearly period that ends on 30 June 2023.
- **b** Does your answer to part a represent the interest earned for the period? Explain your answer fully.
- **c** Using the above information, state the item, its classification and its dollar value, which would be reported in the following accounting reports.
  - **i** cash flow statement for the year ended 30 June 2023
  - **ii** income statement for the year ended 30 June 2023
  - **iii** balance sheet as at 30 June 2023

SPREADSHEET

11 Accrued revenue – receipt in the subsequent period

WB PAGE 358

During the year ended 31 December 2023 the owner of Geelong Art Supplies, Tony Paatsch, recorded receipts of commission revenue of $21 000. However, when Paatsch checks the sales figures for December, he finds that additional commission of $4000 had been earned but not yet received.

- **a** Prepare the adjusting entry required on 31 December 2023 and the closing entry on that date.
- **b** Prepare the two ledger accounts affected by your adjusting entry from part **a**.
- **c** Is the balance sheet affected by your adjusting entry in part **a**? If so, state the two fold effect of the adjusting entry on the balance sheet.
- **d** The commission owing was received on 17 January 2024, along with $2000 commission for the new period and GST of $600. State the double entry required when the commission owing is received.
- **e** Explain the impact on the accounting reports prepared for the year ended 31 December 2024 if the commission received on 17 January was credited to the Commission Revenue account.

SPREADSHEET

12 Accrued revenue – receipt in the subsequent period

WB PAGE 359

Adam Taylor, owner of Taylor's Beehives, invests $16 000 in a four year term deposit at 5.5% per annum. The investment is made on 1 November 2022 and the business closes its books on 30 June each year. Interest on the investment is paid twice a year, on 30 April and 31 October.

- **a** Prepare the relevant general ledger accounts to show all transactions relating to the investment from 1 November 2022 to 31 October 2023. Your entries should include all cash transactions, as well as adjusting and closing entries.
- **b** Prepare the adjusting and closing entries that would be made in the general journal on 30 June 2023.
- **c** State, and explain, the effect on the firm's reports if the balance day adjustment wasn't recorded on 30 June 2023.
- **d** Show how the receipt of interest on 31 October 2023 would be recorded in the general journal of Taylor's Beehives.

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CASE STUDY

WB PAGE 361 SPREADSHEET

John McConville is the proprietor of Carlton Trophies, a small business that makes trophies and medallions for individuals, schools and businesses. Because of the nature of the work, the firm requires cash up front from all customers. Unearned revenue is recorded using the liability approach.

The following trial balance provides information about the business and its records for the current year.

CARLTON TROPHIES: TRIAL BALANCE AS AT 31 AUGUST 2023

	$		$
Cost of sales	37 000	Unearned sales revenue	92 000
Cash at bank	12 000	Capital	321 800
Display equipment	11 000	Accounts payable	12 400
Cleaning of premises	4 200	Interest revenue	200
Stationery expense	1 740	Loan – TY Finance	13 750
Prepaid insurance	1 800	Mortgage loan	328 000
Term deposit	5 000	Accumulated depreciation – display equipment	7 000
Drawings	16 000	GST clearing	3 200
Inventory	40 150		
Advertising	500		
Wages	22 160		
Interest expense	16 800		
Premises	610 000		
	778 350		778 350

Additional information

- Of the unearned sales revenue, $8400 relates to orders that will be completed during September and October 2023.
- An account for advertising done during August 2023 hasn't yet been paid. The invoice from Northern Newspapers is for $100.
- The insurance policy of $1800 was taken out on 1 December 2022 for 12 months' cover.
- Interest on the term deposit is payable at 4% per annum. The investment was made on 30 April 2022 for a three year period.

- The firm's receipts show that McConville withdrew $2000 cash in June, but this was accidentally debited to wages.
- Commission revenue earned by the business during the period was $500. None of this commission has yet been received.
- A bank statement received on 31 August 2023 showed that interest was charged on the mortgage loan for the last month of the period. The amount was $1200, and this payment wasn't taken into account before the above trial balance was prepared.
- A stocktake done on 31 August revealed inventory on hand costing $40 500.
- Depreciation of display equipment is to be recorded at 10% per annum, using the reducing balance method.

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a Prepare all the required adjusting entries in the general journal on 31 August 2023.

b Prepare an income statement for the year ended 31 August 2023, showing both the gross profit and net profit for the period.

c Taking into account all the adjustments required, prepare extracts from the balance sheet to show the current assets and current liabilities as at 31 August 2023.

d Commission received on 5 September 2023 totalled $700, plus GST of $70. Prepare the accrued commission revenue account, including the balance day adjustment and the subsequent receipt of cash in the new reporting period.

e Prepare the relevant entry in the firm's general journal when the commission was received on 5 September 2023.

f McConville says he'll settle the account for the outstanding advertising expense on 7 September 2023. Prepare the Accrued Advertising Expense account, including the balance day adjustment and the subsequent payment of cash.

g Prepare the following general ledger accounts, including all relevant entries: Unearned Sales Revenue, Prepaid Insurance Expense, Capital, and Drawings.

ETHICAL CONSIDERATIONS

WB PAGE 366

Jenny Atsakaris has been operating a small business for a number of years, trading as Designer Diaries. Customers are expected to pay up front when placing an order with the business for its custom designed personal or business diaries.

During the year ended 30 June 2023, the business received a total of $260 000 in orders. When Atsakaris checks at the end of the current period how many orders haven't been filled, she's surprised to find that only $5000 remains as unearned revenue. This means that the business has earned $255 000 in revenue for the year and will show a significant profit for the period. While pleased about the profit, she's now worried about how much tax she'll have to pay.

Her husband suggests that she can delay recognising some of the sales by shifting them to the next period, and therefore show a smaller profit for the current period. After all, he says, the tax will be paid, whether this year or next, so it doesn't make much difference.

They agree that the adjusting entry for the current period would be as follows.

GENERAL JOURNAL

Date	Details	Dr	Cr
30 Jun 2023	Unearned sales revenue	200 000	
	Sales revenue		200 000
	Adjusting entry for sales revenue earned this period		

Atsakaris asks for your professional opinion on this issue. Prepare a report for her, making reference to the following items:

- the potential financial benefit of the decision to the business (if any)
- the potential financial costs of the decision (if any)
- the period assumption
- the qualitative characteristic of *relevance*
- the meaning of accrual accounting
- any ethical considerations of the decision.

CHAPTER CHECKLIST

Now that you have finished Chapter 19, double check your progress.
Are you ready for your Unit 4 exam?

I have ...

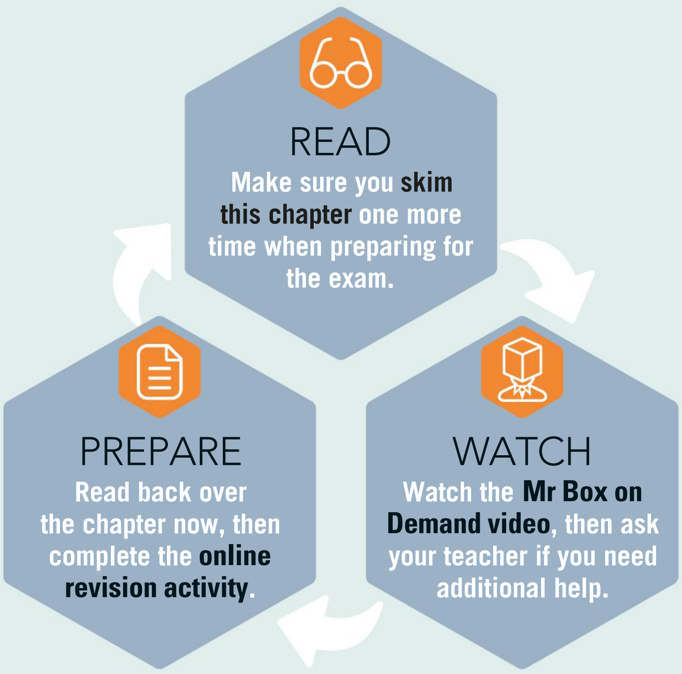
- completed all 'Check Your Understanding' questions
- completed all exercises
- completed the end of chapter activities
- handed in my workbook for marking.

I understand ...

- documents used by a business to record financial transactions
- the recording and reporting of balance day adjustments:
  - unearned revenue (liability approach) with GST being recorded at the time revenue is earned
  - accrued revenue with GST being recorded at the time of receipt
  - receipt of accrued revenue in the subsequent reporting period
- the effect of transactions on the accounting reports.

I can ...

- use ICT, including spreadsheets, to record transactions, prepare accounting reports and construct graphical representations
- prepare an adjusted Trial Balance
- analyse the effect of balance day adjustments on accounting reports
- discuss and evaluate ethical considerations in relation to business decision making and the strategies used to improve business performance.



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20 BUDGETING

The owner of a business must be able to plan and control the business's activities. The most important accounting tools for this planning are the budget, and the reports that are used to create and shape that budget.

In this chapter, you will learn why budgeting is so vital for a successful business, and how to create a variety of budgeting reports.

LEARNING OBJECTIVES

By the end of this chapter, you will be able to:

- explain the need for budgeting in small businesses [20.1]
- outline the role played by a variety of budgets [20.1]
- identify relevant items used in the different types of budgets [20.1]
- reconstruct ledger accounts to find information relevant to budgeting [20.2]
- prepare budgeted cash flow statements [20.3]
- prepare budgeted income statements [20.4]
- prepare budgeted balance sheets [20.5].

UNIT 4 – PROGRESS 14 — 15 — 16 — 17 — 18 — 19 — 20 › 21 ··· 22 ··· 23

20.1 The need for budgeting

20.2 Cash budgeting

20.3 Preparing a budgeted cash flow statement

20.4 Budgeted income statements

20.5 Budgeted balance sheets

Chapter review and exercises

20.1 THE NEED FOR BUDGETING

budgeting
the process of preparing a financial plan for a business

Budgeting is a means of planning and controlling a business's future financial transactions. The budgeting process involves making estimates of what is expected to happen in the future.

All businesses need to prepare a budget, because all managers should have a basic financial plan. Those plans might include making sales of a particular value, increasing market share to a specific percentage, or generating a certain rate of return on investment.

A financial plan can be prepared and then modified as necessary to improve performance of the business. A business that doesn't have a financial plan will operate haphazardly, without effective control or oversight.

sales budget
a report that includes estimates of all sales for a future reporting period

Some budgets set achievement targets, while others set expenditure limits. For example, a business can use its **sales budget** to estimate future revenue. This provides a target for management and employees to aim for in a future reporting period. It might also provide incentives for staff to improve their performance; if every employee improved, the overall business would benefit in terms of sales and, probably, profits.

expense budget
a list of predicted expense items for a future reporting period

Other budgets simply aim to control a business's costs. Sometimes expenses are grouped together to identify cost centres within a business. Budgets can be based on these cost centres, helping to restrict the business's spending and improve accountability. Therefore, an **expense budget** is used to plan a business's future expenses and, hopefully, to put a ceiling on spending within particular segments of the business.

DIFFERENT TYPES OF BUDGET

Management may develop a very complex budget plan, or it may adopt the more commonly used budget tools. Table 20.1 lists some of the types of budgets that small business owners and/or managers might use.

TABLE 20.1 Types of budgets and their purposes

Master budget	Sets out the overall planning strategy of the business; made up of information from many of the other types of budgets
Sales budget	Predicts the future sales revenue expected to be earned by the business Usually includes quantities of products expected to be sold and their anticipated selling prices
Purchases budget	Estimates the cost of purchases required to meet the anticipated sales of the business
Labour budget	Predicts the staff required and the cost of wages and salaries for a given period
Expense budget	Outlines the cost of all expenses necessary to meet the business's plans
Budgeted cash flow statement	Predicts the future cash inflows and cash outflows of the business, with the final figure being the predicted cash balance at one point in time
Budgeted income statement	Provides a summary of all revenues and expenses expected for a period, with the final figure being the predicted net profit or loss for the period
Budgeted balance sheet	Estimates the future financial position of the business; includes predictions of assets, liabilities and owner's equity at a particular time in the future

Perhaps the most important budget for many small trading businesses is the sales budget, which involves estimating the future sales of the business. The sales budget is crucial to the overall budgeting process, as the forecasts have a direct link with many other types of budgets:

- The sales made by a business will hopefully lead to an inflow of cash in the future, so the sales forecast has a direct impact on the business's estimated cash flows.
- The sales not expected to be collected in a given period lead to an estimated Accounts Receivable balance, which becomes part of the budgeted balance sheet.
- As both cash and credit sales are usually recognised as revenue earned during a period, the sales forecast also has a direct link with the budgeted income statement.

The estimate of sales also leads to other predictions, such as inventory requirements, estimated purchases and staffing needs. The sales budget is therefore the cornerstone of the budgeting process.

There are other types of budgets that can be prepared by small business owners. For example, a capital budget is used to plan the replacement of assets (also known as capital items) in the future. Assets such as equipment, shop fittings and computers involve a considerable capital outlay, but businesses rarely have cash available at short notice to replace them. Management must plan how such assets will be replaced when they reach the end of their useful working lives.

The capital budget also has an impact on several other budgets:

- As non current assets are involved, the budgeted balance sheet is directly affected.
- If cash is paid for assets, the budgeted cash flow statement must reflect the cash outflow expected to occur for purchases.
- Once assets are purchased, their depreciation will be shown in a budgeted income statement.

Depending on the size of the business, other budgets may also be prepared.

Although it's important to have an overview of the complete budgeting process, this chapter focuses on three key types of budgeting budgeted cash flow statements, budgeted income statements and budgeted balance sheets.

EXAM SUCCESS
Accounting exams focus on these three types of budgets.

20.1 CHECK YOUR UNDERSTANDING

WB PAGE 369

1. Explain how a budget helps in planning the future operations of a business.
2. A budget is said to assist in controlling expenses. Describe how it does this.
3. 'The sales budget is the cornerstone of the budgeting process for a trading business.' Comment on this statement.
4. Describe the two processes involved in the preparation of a sales budget.

20.2 CASH BUDGETING

budgeted cash flow statement
accounting report that shows estimates of cash receipts and payments, and bank balance, at a particular future period

A **budgeted cash flow statement** looks at the future cash inflows and outflows of a business. It's particularly important for trading businesses because of the significant investment in the inventory sold by the business.

The success of a trading business is largely determined by management's ability to turn inventory into cash on a regular basis. As many businesses purchase inventory on credit over 30 or 60 days, it's crucial to know the expected cash situation of the business in the forthcoming months.

The preparation of a budgeted cash flow statement must take into account all future inflows and outflows of cash. Typical items that are reported in a budgeted cash flow statement for a trading business are shown below, using the usual classifications of a cash flow statement.

Anticipated cash inflows (receipts)		
Operating activities	Investing activities	Financing activities
• cash sales of inventory • collections from accounts receivable (from credit sales made previously) • other revenues (e.g. interest revenue, commissions) • GST collected from customers	• cash receipts from the disposal of non-current assets	• cash contributions by the proprietor (i.e. additional capital) • loans (e.g. from banks, finance companies)

Anticipated cash outflows (payments)		
Operating activities	Investing activities	Financing activities
• cash purchases of inventory • payments to accounts payable (from credit purchases made previously) • cash payments of expense items • GST paid to suppliers	• cash payments for non-current assets (buying new assets	• cash withdrawals by the proprietor • repayments of loans

MAKING ESTIMATES

As with any form of budgeting, the most difficult task is making an estimate of a future event. Some cash flows are fairly constant, while others fluctuate wildly.

For example, an expense such as rent, which is specified in a contract, is easy to estimate for a certain period into the future. Cash outflows for items such as telephone, internet and electricity are also usually stable. The amounts paid in previous periods can be checked, and estimates of future outflows are easy.

Regular, periodic expenses such as rent are easy to estimate for a budget.

Other predictions are very difficult to make. Perhaps the most difficult one is the sales forecast and the cash flows that result from such sales. The accounting records from the same period last year may provide a starting point, but management should conduct market research on a periodic basis to help plan the future of the business.

Market research can take into consideration questions such as:

- Is the business likely to continue to trade as successfully as it did last year?
- Is the business planning on a major change in the way it operates? For example, should it offer goods online?
- Does the business plan to sell the same inventory lines, or will it experiment with an expanded range of products?
- Does the business plan to eliminate some slow moving inventory lines?
- Are there new competitors in the market either generally or in the local area?
- Are there any external factors that are likely to affect the business (e.g. government decisions, the state of the economy, environmental factors)?

Once a business has taken these and other factors into account, it should be able to make an informed estimate of sales. Like any form of budgeting, it's still only an estimate and isn't expected to be perfectly accurate. However, as the sales forecast is used in other forms of budgeting, management should ensure that all relevant information is available before sales estimates are finalised. An informed decision is more likely to result in an accurate budget than one based on guesswork because of a lack of information.

20.2 CHECK YOUR UNDERSTANDING

WB PAGE 370

1. What is a budgeted cash flow statement? What does it show?
2. State four items you could expect to find under the heading of 'operating activities' that are:
   a. estimated inflows of cash
   b. estimated outflows of cash.
3. State and describe four different factors management might consider when making estimates of future sales turnover.

20.3 PREPARING A BUDGETED CASH FLOW STATEMENT

If a trading business buys and sells on credit, sales and purchases won't automatically equate to cash flows. As a budgeted cash flow statement predicts future inflows and outflows of cash, management not only predict future sales and purchases, but also when those transactions will result in a movement of cash.

The following extended example examines the processes involved in determining cash flows from future transactions.

Tina Davis is the owner of Smart Screen, a small business that sells smartphone cases and screen protectors. Davis is thinking of purchasing a new computer system for her business at a cost of about $2000. On 1 July 2023 the business's bank account has a debit balance of $250. Davis needs a quarterly budget (July September) to be prepared to help her determine when she can buy the computer.

After extensive market research and studying last year's figures, Davis believes that the following sales estimates will be reasonably accurate.

Sales information (including 10% GST)		
Actual	– April	$10 450
	– May	$10 450
	– June	$11 000
Estimated	– July	$11 000
	– August	$13 200
	– September	$15 400

Based on past experience, 70% of total sales are made on a cash basis, with the other 30% of sales being made on credit. When sales are made on credit, 60% of accounts receivable pay in the month after the sale has occurred, 25% pay in the second month after sale, and the remaining 15% usually pay in the third month after sale.

In order to satisfy the above sales requirements, Davis estimates that the following purchases will be required.

Purchases information (including 10% GST)		
Actual	– May	$6 600
	– June	$6 600
Estimated	– July	$7 700
	– August	$8 800
	– September	$9 900

Davis normally purchases all her inventory requirements on 30 days' credit. Of these credit accounts, 90% are usually settled in the month after purchase to take advantage of a 2% discount. The remaining 10% are usually paid in the second month after purchase.

When questioned about other regular cash payments, Davis supplies the following list.

Wages paid to an assistant	$380 per week
Advertising	$200 per month, plus GST of $20
Window cleaning	$60 per week, plus GST of $6
Cash drawings	$500 per week

In addition to the regular payments, the insurance on the shop is due for payment on 1 July and is expected to be $600, plus GST of $60. Davis also has a telephone bill for $180 (plus GST of $18), which is due on 27 June. She intends to pay the account in the first week of July. The business also owes the Australian Taxation Office $500 for GST, and this is due by 28 July.

EXPECTED CASH INFLOWS

The first step in preparing a budgeted cash flow statement for Smart Screen is to determine the cash flows that are expected as a result of sales. As both cash and credit sales are made, it's important to calculate the dollar value for each of these items.

Table 20.2 shows these expected cash inflows.

TABLE 20.2 Smart Screen's expected cash inflows

Month	Total sales $	Cash sales 70% $	Credit sales 30% $
April	10450	7315	3135
May	10450	7315	3135
June	11000	7700	3300
July	11000	7700	3300
August	13200	9240	3960
September	15400	10780	4620

The cash sales figures for July, August and September in Table 20.2 will go directly into the budgeted cash flow statement, as this is the period under examination.

Note, however, that the figures for cash sales include the GST collected by the business. When preparing a cash budget, you should ensure that the GST collected is shown separately from the cash sales figures.

The GST and the cash sales for July, August and September would be determined as follows.

Month	Cash sales (including GST) $	GST collected (sales/11) $	Sales per month (excluding GST) $
July	7 700	700	7 000
August	9 240	840	8 400
September	10 780	980	9 800

As credit sales aren't a cash flow, a further step is required to determine when accounts receivable are likely to pay their accounts. A **schedule of collections** from accounts receivable solves this problem, and is shown in Figure 20.1.

schedule of collections a table used by businesses that sell on credit to predict cash inflows from accounts receivable

FIGURE 20.1 Schedule of collections from accounts receivable

Month	Credit sales $	Collections in:		
		July $	August $	September $
April	3135	470		
May	3135	784	470	
June	3300	1980	825	495
July	3300		1980	825
August	3960			2376
Total to be received		3 234	3 275	3 696

This collections schedule is used to calculate the expected cash flow resulting from credit sales. Using the past history of the business, the pattern of collections has been used to stagger the expected cash receipts over a three month period.

Looking at June as an example, the $3300 worth of credit sales are expected to be collected as follows:

- 60% in July ($1980)
- 25% in August ($825)
- the remaining 15% in September ($495).

The credit sales of April are relevant to the collections schedule because 15% of April's sales are expected to be collected during July, which is part of the quarterly budget period.

Note that as 60% of April's sales are collected in May and 25% in June, the amounts received in these months aren't relevant to the July September period. Only those receipts expected in July (i.e. 15% of April's sales) have been recorded in the schedule because they will result in cash flows during the budget period.

The credit sales of September are also irrelevant to the collections schedule because they are expected to result in cash receipts during October, November and December.

EXPECTED CASH OUTFLOWS

Having determined the anticipated cash receipts, the next step is to find the expected cash outflows that result from the business's credit purchases. A schedule showing anticipated payments to accounts payable should be prepared using the data given earlier, as shown in Figure 20.2.

FIGURE 20.2 Schedule of payments to accounts payable

Month	Credit purchases $	Payments in:		
		July $	August $	September $
May	6600	660		
June	6600	5821	660	
July	7700		6791	770
August	8800			7762
Total to be paid		6 481	7 451	8 532

schedule of payments
a table used by businesses that purchase inventory on credit to help predict cash outflows to accounts payable

The **schedule of payments** to accounts payable is based on the usual pattern of payments by the management of Smart Screen. Note that when the payment occurs in the month after purchase, the 2% discount has been deducted as this isn't a cash outflow.

Using the month of June as an example, 90% of the credit purchases are expected to be paid in July, when the discount will be received.

Accounts to be paid are: 90% of $6600	= $5 940
Less the discount available: 2% of $5940	= $119
Actual cash payment anticipated	=$5 821

The purchases in May are relevant to the budget period because 10% of May's purchases are expected to be paid in July (i.e. two months after purchase). As all purchases are made on a credit basis, the schedule doesn't include purchases expected to be made in September, which are expected to be paid in October and November.

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THE BUDGETED CASH FLOW STATEMENT

Having completed schedules to determine the cash flows involving both accounts receivable and accounts payable, the budgeted cash flow statement can now be prepared, as shown in Figure 20.3. Note that the GST collected as part of cash sales has been reported separately.

FIGURE 20.3 Quarterly budgeted cash flow statement

SMART SCREEN: BUDGETED CASH FLOW STATEMENT FOR QUARTER ENDING 30 SEPTEMBER 2023

	July	August	September
	$	$	$
Cash flows from operating activities			
Cash sales	7000	8400	9800
Collections from accounts receivable	3234	3275	3696
GST received	700	840	980
Payments to accounts payable	(6481)	(7451)	(8532)
Wages – assistant	(1520)	(1520)	(1520)
Advertising	(200)	(200)	(200)
Window cleaning	(240)	(240)	(240)
Insurance	(600)		
Telephone	(180)		
GST settlement	(500)		
GST paid	(122)	(44)	(44)
Net cash provided by operating activities	1091	3060	3940
Cash flows from investing activities			
Nil			
Cash flows from financing activities			
Cash drawings	(2000)	(2000)	(2000)
Net cash used by financing activities	(2000)	(2000)	(2000)
Net increase (decrease) in cash held	(909)	1060	1940
Cash held at beginning of month	250	(659)	401
Cash held at end of month	(659)	401	2341

EXAM SUCCESS
When preparing a budgeted cash flow statement, make sure that you only include cash flow items.

The format of this budgeted cash flow statement is preferable to just adding up all receipts and payments for the quarter and presenting them as one figure. Instead, this report allows management to calculate an estimated cash balance at the end of each month.

It also provides information in relation to the three areas of cash flows. The increase in cash flows from operations is clearly a positive trend. It's also clear that the bank account is expected to move from an opening balance of $250 at the start of July to an estimated overdraft of $659 by the end of July. This is then expected to improve to a positive balance of about $400 by 31 August and to $2341 by 30 September.

In relation to Smart Screen, the answer to Davis' question is that she should buy the computer system in September. As the system is expected to cost about $2000, there won't be sufficient cash during July or August if the budget is accurate.

BUDGETING FOR GST LIABILITY

Remember that when a business collects GST on its sales, it must send this money (less any GST it has paid) to the Australian Taxation Office (ATO) at some point. All business owners must ensure that they keep sufficient cash in their accounts to be able to meet their GST liability.

In the case of Smart Screen, the business will have a GST liability after the transactions of July, August and September. Davis must decide whether to wait until after September to buy the computer or, if this isn't satisfactory, alter her plans after considering the information revealed by the budgeted cash flow statement. This may lead her to decide to:

- make an additional capital contribution
- cut back on the level of personal drawings
- reduce and/or postpone the payment of expenses
- borrow the required cash from an outside party (e.g. a bank)
- lease, rather than purchase, a computer.

SURPLUS CASH BALANCES

A budgeted cash flow statement might indicate that a business will have surplus cash available in future reporting periods. In this case, management has to decide how best to use the cash. It might:

- reduce debt by paying off some liabilities
- purchase non current assets
- purchase inventory for cash, taking advantage of discounts that may be available
- take the opportunity, while the business can afford it, to withdraw cash for personal use.

The basic role of a budgeted cash flow statement is to determine if, at the end of a given period, a business is likely to have a shortage or a surplus of cash. Management must then respond to ensure that the business's plans won't fail simply because of a shortage of cash when it's required.

The budgeted cash flow statement also has links with the budgeted income statement and the budgeted balance sheet. Many cash flows are also revenues or expenses and will appear in a budgeted income statement as well. (For example, a cash sale is also a revenue item, and wages is also an expense item.)

The estimated cash balance, as determined by the budgeted cash flow statement, goes straight into the budgeted balance sheet since it represents the expected value of a current asset in the future.

20.3 CHECK YOUR UNDERSTANDING

WB PAGE 371

1 Outline the importance of budgeted cash flow statements when accounting for a trading business.
2 State and explain three decisions management may make when a budgeted cash flow statement predicts a shortfall of cash.
3 If a budgeted cash flow statement predicts a surplus of cash, what should management do? Discuss the options that management may consider.

20.4 BUDGETED INCOME STATEMENTS

A **budgeted income statement** is used to examine the predicted revenues and expenses of a business over a given period of time. While the budgeted cash flow statement looks at the business's future cash position, the budgeted income statement allows management to investigate the likely profitability of the business. Earning a profit is a basic objective for most small businesses, so management must have information about future earning potential.

budgeted income statement accounting report that shows estimates of revenues, expenses and profit over a specific future period

The format of the budgeted income statement is exactly the same as the historical type of profit report. The only difference is that the dollar values in the budgeted report are *predicted* results, rather than historical fact.

It's important to distinguish between the items relevant to a budgeted cash flow statement and those used to prepare a budgeted income statement:

- The budgeted income statement reports on future estimates of revenue to be earned and expenses to be incurred.
- The budgeted cash flow statement reports on all expected cash inflows and outflows, whether or not the items involve revenues or expenses.

Table 20.3 highlights the differences between the two types of reports.

TABLE 20.3 Comparison of the items relevant to a budgeted cash flow statement and a budgeted income statement

Included in a budgeted income statement	Included in a budgeted cash flow statement
Revenue earned	Revenue received
Expenses incurred	Expenses paid
Credit sales	Collections from accounts receivable
Cost of sales	Payments to accounts payable/suppliers
Depreciation of non-current assets	Cash paid for new assets
Inventory losses/gains	Cash from disposal of assets
	Cash from new loans
	Cash paid for loan repayments
	Capital contributions by owner
	Cash withdrawals by the owner

A budgeted income statement is used to help set goals for a business.

MANAGEMENT AND THE BUDGETED INCOME STATEMENT

When a budgeted income statement has been prepared, management is provided with a plan of its future trading activities. The plan consists of several smaller budgets usually a sales budget, a cost of sales budget and an expense budget.

If the budget plan isn't to the satisfaction of management (e.g. if it predicts a net loss), changes should be made to improve the situation before the budget period commences. Management may have to re examine the expense structure of the business and consider alternatives:

- Should assets be leased, rather than purchased?
- Is there a more efficient way to advertise the business's products?

Or management may have to re evaluate the inventory the business sells:

- Are all departments or all lines of inventory profitable?
- Can some new lines be introduced to improve profitability?
- Should some lines be eliminated?

Ideally, management should consider these sorts of questions on a continuous basis in an effort to improve the performance of the business.

The value of a budgeted income statement is that it forces management to consider the future of the business. Goals can then be set for the business, and for departments and individuals within the business. Having set budget targets, management can then measure how well the business is performing in terms of achieving its objectives.

PREPARING A BUDGETED INCOME STATEMENT

To demonstrate the preparation of a budgeted income statement, let's again consider the example of Smart Screen. Some of the relevant information was already provided for the budgeted cash flow statement:

- Estimated sales for July were $11 000: $7700 cash sales and $3300 credit sales.
- By removing the GST from these figures, the actual revenue to the business would be cash sales of $7000 and credit sales of $3000.
- Ninety per cent of June purchases are expected to be paid in July, to take advantage of a 2% discount.
- Wages paid to an assistant are $380 per week.
- Advertising is $200 per month (plus GST of $20).
- Window cleaning costs $60 per week (plus GST of $6).
- Cash drawings are $500 per week.
- Insurance on the shop is due for payment on 1 July and is expected to be $600 for a one year premium (plus GST of $60).
- A telephone bill for $180 (plus GST of $18), due on 27 June, will be paid in the first week of July. The amount of this bill is a typical quarterly bill.

Additional information not used for the budgeted cash flow statement:

- Cost of sales is usually 50% of sales revenue, as the business applies a standard mark up of 100% to its inventory in order to determine its selling prices.
- Depreciation on shop fittings is charged at the rate of 20% per annum, using the straight line method. On 30 June 2023 the balance of the Shop Fittings account was $12 000.

Figure 20.4 uses this information to show the estimated revenues and expenses for the month of July.

FIGURE 20.4 Budgeted income statement

SMART SCREEN: BUDGETED INCOME STATEMENT FOR THE MONTH ENDING 31 JULY 2023

Revenue	$	$
Credit sales	3000	
Cash sales	7000	10000
Less: Cost of sales		5000
Estimated gross profit		5000
Other revenue		
Discount revenue		119
		5119
Less: Other expenses		
Wages	1520	
Advertising	200	
Window cleaning	240	
Insurance	50	
Telephone	60	
Depreciation of shop fittings	200	2270
Estimated net profit		2849

EXAM SUCCESS
A budgeted income statement follows the same format as a normal income statement, except that the values are all estimates.

How the estimates were calculated:

- Wages, advertising and window cleaning are exactly the same as the figures in the budgeted cash flow statement because they're paid as they're incurred.
- Insurance expense is $50, as the $600 premium is for one year; the expense for July is $600 ÷ 12 = $50.
- The quarterly telephone bill is usually $180; the estimated expense for one month is $180 ÷ 3 = $60.
- Depreciation of shop fittings is 20% per annum on a cost of $12 000. The cost for one year is $12 000 × 0.20 = $2400, and for one month it would be $2400 ÷ 12 = $200.
- The discount revenue comes from the settlement of 90% of June's credit purchases. That is, $600 × 0.90 = $5940 to be settled. Therefore, a discount of 2% of $5940 = $118.80 will be granted by the business's suppliers (rounded off to $119). This amount wasn't reported in the statement as it doesn't represent a cash flow.

REVIEWING THE BUDGETED INCOME STATEMENT

Once the budgeted income statement is prepared, management should review it in terms of the business's desired profit level.

If the results fit with management's overall objectives, the budget should be adopted and put into action. If it's unsatisfactory, it needs to be reviewed and amended until management is happy with the goals in the budget. There is little use in preparing a budget if staff working within the organisation won't accept it. A budget must be a workable document that is based on attainable goals.

The budgeted income statement is a plan for the future profitability of a business. Once finalised, it should be viewed as providing a target that specifies a high level of performance.

Wages, advertising and window cleaning are regular and predictable expenses.

20.4 CHECK YOUR UNDERSTANDING

WB PAGE 372

1 Explain why the management of a trading business should prepare a budgeted income statement on a regular basis.
2 Distinguish between the items that are used to prepare a budgeted cash flow statement and those that are used to prepare a budgeted income statement.
3 Name four items that could appear in a budgeted cash flow statement that wouldn't appear in a budgeted income statement.
4 Name four items that could appear in a budgeted income statement that wouldn't appear in a budgeted cash flow statement.

20.5 BUDGETED BALANCE SHEETS

The **budgeted balance sheet** is a statement of a firm's predicted financial position at a particular date in the future. This statement can be used for a variety of purposes, such as:

- reporting on the future situation of a firm's non current assets (i.e. capital spending)
- examining the future liquidity position of the business
- evaluating the gearing of the business in the future (i.e. the extent to which it relies on borrowed funds)
- showing the future details of the owner's equity in the business, including details of future profits and drawings.

budgeted balance sheet
accounting report that shows estimates of assets, liabilities and owner's equity at a specific future date

The format of a budgeted balance sheet is virtually the same as that of the traditional report. The only difference is that the dollar values are based on estimates of future events, rather than being a report on historical results.

If a business plans to expand, the expected changes in assets can be clearly shown in a budgeted statement. There would also be changes expected in the equities side of the report. Additional liabilities may be created, or the owner's equity may be increased in order to fund the purchase of the new assets.

The budgeted balance sheet can be classified in the usual way, allowing management to examine changes in liquidity. The estimated future current assets can be compared with the expected current liabilities. This helps management ensure that the future plans won't adversely affect the business.

The results of liquidity analysis from a budgeted balance sheet should be read together with a budgeted cash flow statement to ensure the firm's liquidity will be sufficient to meet its needs into the future.

A budgeted balance sheet helps predict the effects of expanding and buying more assets.

PREPARING A BUDGETED BALANCE SHEET

In order to demonstrate the preparation of a budgeted balance sheet, Smart Screen will again be used as an example.

When preparing a budgeted balance sheet, a logical starting point is the most recent historical statement. This report provides factual data about the business at one point in time.

Having established the actual financial position of the business, management can then use this data to make predictions for the future. These predictions take into account what is likely or expected to happen to the business.

The historical report is provided in Figure 20.5.

FIGURE 20.5 **Historical balance sheet**

SMART SHEET: BALANCE SHEET AS AT 30 JUNE 2023

Current assets	$	$	Current liabilities	$	$	$
Cash at bank	250		Accounts payable		7260	
Accounts receivable	5024		GST clearing		500	
Inventory	21000	26274	Accrued telephone expense		180	7940
Non-current assets			**Owner's equity**			
Shop fittings	12000		Capital	25000		
Less: Accumulated depreciation	2400	9600	Net profit	4934	29934	
			Less: Drawings		2000	27934
		35874				35874

The preparation of the budgeted cash flow statement and budgeted income statement for Smart Sheet also includes much of the work required for the budgeted balance sheet.

The following information has been extracted from the previous two budgets.

Accounts receivable

The budgeted cash flow statement states that the Cash at Bank account balance as at 31 July is expected to be $659 overdrawn. Accounts Receivable at the beginning of July were $5024.

The budgeted income statement states that credit sales during July are expected to be $3000. GST charged to accounts receivable will therefore be $300.

The budgeted cash flow statement states that receipts from accounts receivable during July are estimated to be $3234. Thus the final accounts receivable balance is expected to be $5024 + $3000 + $300 $3234 = $5090.

This figure may be found through a reconstruction of the Accounts Receivable account:

Accounts receivable

		$			$
1 Jul	Balance	5024	31 Jul	Cash at Bank	3234
31 Jul	Sales/GST clearing	3300		Balance	5090
		8324			8324
1 Aug	Balance	5090			

Inventory

Inventory at the start of July was $21 000.

Purchases during July are expected to be $7000 (original data provided for the budgeted cash flow statement) and cost of sales for July is predicted as $5000 (budgeted income statement).

Therefore, inventory as at 31 July can be determined as $21 000 + $7000 $5000 = $23 000.

An Inventory account may be used to determine this final balance, as shown below.

Inventory

		$			$
1 Jul	Balance	21 000	31 Jul	Cost of sales	5 000
31 Jul	Accounts payable	7 000		Balance	**23 000**
		28 000			28 000
1 Aug	Balance	23 000			

Accounts payable

Accounts payable as at 30 June were $7260.

During July, credit purchases are expected to be $7000, plus GST of $700, and payments to accounts payable are estimated as $6481. (Discount revenue on these payments totalled $119.)

The balance of accounts payable can be estimated as $7260 + $7000 + $700 $6481 $118 = $8360.

The Accounts Payable ledger account may also be used to find this final balance:

Accounts payable

		$			$
31 Jul	Cash at bank	6 481	1 Jul	Balance	7 260
	Discount revenue	119	31 Jul	Inventory/GST clearing	7 700
	Balance	**8 360**			
		14 960			14 960
			1 Aug	Balance	8 360

GST liability

The GST liability as at 30 June was $500, and was expected to be paid in July. The GST events expected in July are:

- GST received on cash sales: $700
- GST charged on credit sales: $300
- GST charged on credit purchases: $700
- GST paid on expenses: $122.

This information can all be reconstructed in a GST Clearing account to determine the final GST liability or refund due at the end of July 2023, as shown below.

GST clearing

		$			$
31 Jul	Accounts payable	700	1 Jul	Balance	500
	Cash at bank	122	31 Jul	Cash at bank	700
	Cash at bank	500		Accounts receivable	300
	Balance	178			1 500
		1 500	1 Aug	Balance	178

Other estimates

- Accumulated depreciation of shop fittings is to increase by $200 (from the budgeted income statement).

- Prepaid insurance will be created during July. The insurance payment of $600 is for a one year premium. $50 will be written off as an expense for July, with the other $550 being a prepaid expense as at 31 July.
- The Telephone account is paid quarterly, so one month's expense will be owing at the end of July. A current liability of $60 ($180/3) will be created on 31 July.
- In relation to the owner's equity, the estimated profit for July is $2849 and her drawings are expected to be $2000 during the month of July.

Taking into account all the above budget estimates, the budgeted balance sheet for Smart Screen can be prepared as shown in Figure 20.6.

FIGURE 20.6 Budgeted balance sheet

SMART SCREEN: BUDGETED BALANCE SHEET AS AT 31 JULY 2023

Current assets	$	$	Current liabilities	$	$	$
Accounts receivable	5 090		Bank overdraft		659	
Inventory	23 000		Accounts payable		8 360	
Prepaid insurance	550	28 640	GST clearing		178	
			Accrued telephone expense		60	9 257
Non-current assets						
Shop fittings	12 000		Owner's equity			
Less: Accumulated depreciation	2 600	9 400	Capital	27 934		
			Net profit	2 849	30 783	
			Less: Drawings		2 000	28 783
		38 040				38 040

EXAM SUCCESS A budgeted balance sheet is still based on the standard accounting equation A = L +OE.

REVIEWING THE BUDGETED BALANCE SHEET

Once a budgeted balance sheet has been prepared, it should be compared with the latest historical report. This allows management to identify the key changes expected to occur in the budget period.

For example, changes in the liquidity or the gearing of the firm can be highlighted. If necessary, management can take appropriate action, such as making changes to the budget plan. Or, if the problems aren't seen as serious, management may simply monitor the situation in the future to make sure it meets expectations.

20.5 CHECK YOUR UNDERSTANDING

WB PAGE 373

1 What is the function of a budgeted balance sheet?
2 State and describe three different uses management may make of a budgeted balance sheet.
3 A budgeted balance sheet is said to have links to both the budgeted cash flow statement and the budgeted income statement. Describe three such links, and explain how the various reports relate to one another.

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20 CHAPTER REVIEW

KEY CONTENT

- **[20.1]** Budgeting is a means of planning and controlling the future financial transactions of a business. All businesses have a need for budgeting, because all managers should have a basic financial plan. There are multiple different types of budget, with different purposes.
- **[20.3]** A budgeted cash flow statement looks at the future cash inflows and outflows of a business. This statement is particularly important for trading businesses because of the significant investment made in inventory.
- **[20.4]** A budgeted income statement is used to examine predicted revenues and expenses over a period of time. This statement allows management to investigate the likely profitability of the business.
- **[20.5]** A budgeted balance sheet is a statement of a firm's predicted financial position at a particular date in the future. It's used to help management ensure that future plans won't adversely affect the business.

CHAPTER 20 EXERCISES

1 Schedule of collections from accounts receivable

WB PAGE 374 SPREADSHEET

Paul Goss is the owner of Box Hill Gym Equipment. He wants to prepare a budgeted cash flow statement for his business but isn't sure how to estimate the cash collections from his credit sales. He supplies the following information and asks for your help.

Credit sales for the previous two months	May	$9000
(including GST)	June	$10000
Estimated future sales	July	$11000
(including GST)	August	$11000
	September	$13000

The past history of the business's accounts receivable shows that 80% of accounts are usually settled in the month after sale and 18% usually pay in the second month after sale. The business has had a problem with bad debts, and the remaining 2% is unlikely to be collected.

Prepare a schedule of collections from accounts receivable to show the estimated cash flows for the quarter ending 30 September 2023.

SPREADSHEET

2 Schedule of collections from accounts receivable

WB PAGE 374

The owner of Capri Jewellery, Cecilia Mandanici, asks you to prepare estimates of the future cash inflows for her business. The shop sells on both a cash and a credit basis, with cash sales usually being 60% of total sales. Based on her experience in running the business, Mandanici informs you that accounts receivable usually pay as follows:

- 70% of accounts receivable pay in the month following sale and are allowed a discount of 2% on their accounts
- 20% of accounts receivable pay in the second month after sale
- 10% of accounts receivable pay in the third month after sale.

Cecilia also supplies the following sales data, which includes GST.

Actual sales:	July	$12 000
	August	$12 000
	September	$14 000
Estimated sales:	October	$15 000
	November	$16 000
	December	$20 000

a Prepare a table showing the breakdown between credit and cash sales for the six months July December.

b Prepare a schedule of collections from accounts receivable for the quarter ending 31 December. (Round off amounts to the nearest dollar.)

c Using your calculations from parts **a** and **b**, prepare a budgeted cash flow statement extract showing the estimated cash receipts for Capri Jewellery for the months of October, November and December. (Round off all amounts to the nearest dollar.)

d Explain the role market research should play in the preparation of a budgeted cash flow statement.

SPREADSHEET

3 Schedule of payments to accounts payable

WB PAGE 376

Bait Up Fishing and Tackle usually purchases 80% of its inventory requirements on credit, with the other 20% of inventory being bought on a cash basis. When goods are purchased on credit, 90% of debts are settled in the month after purchase, with the other 10% usually being paid in the second month.

The following data relates to the purchases over the last two months and the budget estimates for the next two months. *Note*: **all amounts include 10% GST.**

Actual purchases:	May	$8 450
	June	$8 260
Budgeted purchases:	July	$8 500
	August	$9 200

a Prepare a schedule showing the breakdown of total purchases into cash and credit purchases for the months May August.

b Prepare a schedule of payments to accounts payable for the two month budget period of July and August.

c Draw up a budgeted cash flow statement extract for July August to show the estimated payments that will result from your answers to parts **a** and **b**.

4 Schedules for collections and payments

WB PAGE 377 SPREADSHEET

The following information relates to Colasurdo's Carriers, a retail store that sells a range of pet carriers and kennels. Note that GST has been included in all sales and purchases data.

		Sales $	Purchases $
Historical data:	January	12 000	6 000
	February	15 000	8 000
	March	16 000	7 500
Projected data:	April	14 000	7 000
	May	13 000	6 500
	June	12 000	6 200

The owner provides additional information:

- Colasurdo buys 90% of the shop's inventory on credit and pays all accounts payable in the month after purchase to take advantage of a 2.5% discount.
- Cash sales usually make up about 65% of total sales.
- Of the credit sales made by the shop, 50% are usually collected in the month after sale. Accounts receivable who pay within this time are allowed a 3% discount on their accounts.
- Normally, 40% of accounts receivable accounts are collected in the second month after sale, and 9% pay three months after the sale has occurred.
- The business suffers bad debts of around 1% of total credit sales.

a Prepare appropriate schedules to determine the expected cash flows for Colasurdo's Carriers for the period April June.

b Using the schedules from part **a**, state the relevant entries that would appear in a budgeted cash flow statement for the quarter ending 30 June.

c Are bad debts reported in a budgeted cash flow statement? Explain your answer fully.

5 Reconstruction of accounts receivable

WB PAGE 378 SPREADSHEET

Toorak Turbochargers has accounts receivable of $5400 on 1 October 2023. The total sales made during October 2022 were $6200, plus GST of $620. So far, the sales made in 2023 have been consistently 15% up on the sales made in the same month the previous year.

The credit sales made by Toorak Turbochargers make up about 40% of their total sales. Management is concerned about a number of slow paying customers and has decided to crack down on slow payers during October. As a result, the amount owing by accounts receivable by the end of October is expected to be only $3200. Discounts allowed to accounts receivable during October are expected to total $82.

a Prepare the Accounts Receivable account for the month of October 2023 to find the estimated cash collections from accounts receivable during that month.

b Explain how an age analysis of accounts receivable may assist the management of Toorak Turbochargers.

SPREADSHEET

6 Budgeted cash flow statement

WB PAGE 378

Lee Herbert is the proprietor of Southern Scuba Supplies. He supplies the following information about his business.

On 1 July 2023 the balance of the bank account was $3400. Revenue over the last two months was as follows (including GST).		
May	Cash sales $24 000	Credit sales $12 000
June	Cash sales $28 000	Credit sales $10 000

During July, all sales are expected to be 8% higher than the June sales figures. Based on the past experience of the business, 60% of credit customers pay in the month after sale, with the other 40% paying in the second month.

The shop had the following purchases during June (including GST):

- cash $6 000
- credit $16 000.

During July, Herbert expects to have cash purchases of $7000, plus GST of $700, and credit purchases of $14 000 (plus GST). It's the business's policy to pay all accounts payable in the month following the purchase of goods.

The business has the following regular payments each month.

Advertising	$1 700 plus GST
Wages	$3 200
Drawings	$3 000
Loan repayments	$2 200
Cleaning of premises	$500 plus GST

The business pays its annual insurance premium of $3400, plus GST of $340, in two instalments, one being due on 16 January and the other on 16 July each year.

Herbert has also decided to renovate the shop and must make a payment of $8000 (plus GST of $800) to the builder on 31 July 2023 and another payment of $6000 (plus GST of $600) on 31 August 2023, when the job should be finished.

a Prepare a budgeted cash flow statement for Southern Scuba Supplies for the month of July 2023.

b Comment on the business's cash position, given the second payment for the renovations is due in August 2023.

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7 Budgeted cash flow statement

WB PAGE 380 SPREADSHEET

Hepburn Springs Hardware is a small business that sells hardware to the general public. The owner is concerned about the liquidity of the business, as there's only $230 in the bank on 30 September 2023, but she's never prepared a formal budgeted cash flow statement. You've been asked to provide assistance.

The following financial data is available.

		Sales (incl. GST) $	Purchases (incl. GST) $
Historical data:	July	14 000	6 000
	August	12 000	6 000
	September	14 000	7 000
Budgeted data:	October	18 000	9 000
	November	18 000	10 000
	December	20 000	10 000

The business purchases all its inventory on credit and usually pays for these goods in the month after purchase to take advantage of a 2% discount. The business's sales are made on both a cash and a credit basis, with credit sales making up only about 20% of the total sales.

The accounts receivable of the business usually pay in the following pattern:

- 60% in the month after sale
- 30% in the second month
- 10% in the third month.

The business has the following regular expenses:

- wages: $350 per week
- advertising: $800 per month (plus GST of $80)
- cleaning: $130 per week (plus GST of $13)
- office expenses: $50 per week (plus GST of $5)
- depreciation of shop fittings $300 a month.

The owner usually withdraws about $600 cash and $100 worth of inventory each week for personal use.

In addition to the regular advertising, the owner plans on spending $1000 (plus GST of $100) on additional advertising in the first week of December to try to boost the shop's share of Christmas trading.

During October the owner plans on buying a new computer for the business at a cost of about $3000 (plus GST of $300).

Rates on the business property are due on 15 November and are expected to be $650. The business also has monthly loan repayments of $800 per month.

a Prepare appropriate schedules, and calculate the anticipated payments to accounts payable and estimated collections from accounts receivable.

b Prepare a budgeted cash flow statement for the quarter ending 31 December 2023. Your budget should show the estimated bank balance at the end of each month. (*Note:* GST isn't payable on rates.)

c Comment on the business's liquidity in light of the owner's concerns.

SPREADSHEET

8 Reconstruction of accounts receivable, inventory and accounts payable

WB PAGE 381

Penni Roe is the owner of Western Solar Panels. She wants to plan for the next quarter's trading activities and provides some financial data from the business.

The following information was extracted from the balance sheet as at 30 June 2023.

Balance of inventory	$42 800
Balance of accounts receivable	$6400
Balance of accounts payable	$4600

During the quarter ending 30 September 2023, Roe estimates that the business will have total sales of $86 000, plus GST of $8600. Cash sales usually make up 75% of the total sales made. The business sells its inventory at a 100% mark up. (That is, the cost price of an item is doubled in order to determine its selling price.)

By the end of the September quarter, the following balances are expected to be reported in the business's balance sheet.

Balance of inventory	$46 400
Balance of accounts receivable	$5800
Balance of accounts payable	$5200

a Prepare the Accounts Receivable account to calculate the estimated receipts expected from accounts receivable for the quarter ending 30 September 2023.

b Complete the Inventory account to determine the credit purchases expected to be made during the quarter.

c Prepare the Accounts Payable account to provide an estimate of the cash to be paid to accounts payable during the quarter ending 30 September 2023.

d Using the above information, list all items relevant to the budgeted cash flow statement of Western Solar Panels for the September quarter. State the dollar amount for each item listed.

e Using the above information, list all items relevant to the budgeted income statement for this business. State the dollar amount for each item for the September quarter.

SPREADSHEET

9 Reconstruction of inventory and accounts payable

WB PAGE 383

Tony Gleeson is the proprietor of Brunswick X Sports. He needs to plan his future cash flows but isn't sure how to determine some of them.

The following information is available.

Balance of inventory 1 October 2023	$24 200	
Balance of inventory 31 October 2023	$27 800	
Balance of accounts payable 1 October 2023	$6250	
Balance of accounts payable 31 October 2023	$5760	
Returns of inventory to suppliers expected during October	$250	(GST $25)
Discounts expected to be received from suppliers during October	$150	
Sales expected during October	$12 600	(GST $1260)
Cost of sales expected during October	$6800	

a Prepare the Inventory account, showing all expected entries for October 2023.

b State the value of credit purchases expected to be made during the month.

c Prepare the Accounts Payable account for October 2023, showing all anticipated transactions that affect the business's accounts payable.

d State the cash flow expected to be made to accounts payable during October 2023.

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10 Preparation of budgeted reports

WB PAGE 383 SPREADSHEET

The following statement was supplied by Jeremy Corby, the owner of Highpoint Hi Fi Systems.

HIGHPOINT HI-FI SYSTEMS: BALANCE SHEET AS AT 30 JUNE 2023

Assets	$	$	Liabilities	$	$
Cash at bank		2000	Accrued advertising	200	
Accounts receivable		4800	Accounts payable	9200	
Inventory		32000	GST clearing	1000	
Furniture		2500	Loan	6000	16400
Shop fittings	15000		**Owner's equity**		
Less: Accumulated depreciation	3000	12000	Capital		36900
		53300			53300

Additional information

- Sales for the month of July are expected to be: cash $15 000 (plus GST of $1500) and credit $5400 (plus GST of $540). All accounts receivable usually pay in the month after sale and are granted a 2.5% discount.
- Purchases are all made on credit, and in July they are expected to be $11 200, plus GST of $1120. All accounts payable are paid in the month after purchase.
- Inventory is expected to increase by $1000 during July 2023.
- The regular monthly expenses of the business include wages $1200, office expenses $300 (plus GST of $30) and advertising $200 (plus GST of $20). All these items will be paid on time during July, along with the $200 of advertising owing for June (plus GST of $20).
- Rent is payable on the first day of each month at a cost of $3000 per month (plus GST of $300 per month).
- Depreciation of shop fittings is charged at the rate of 20% per annum on cost.
- Interest on the loan is charged at the rate of 10% per annum and is payable on the last day of March, June, September and December. The principal of the loan is due for repayment in a lump sum on 30 June 2024.
- A delivery van will be purchased in the last week of July 2023. The van is expected to cost $12 000. Half of the cost will be paid in July and the balance in August.
- The owner of the business usually withdraws $500 per week from the business for personal use.

a Prepare a budgeted cash flow statement for the month of July 2023.

b Prepare a budgeted income statement for the month ending 31 July 2023. (Hint: reconstruct the Inventory account to determine the cost of sales for the period.)

c Prepare a budgeted balance sheet as at 31 July 2023. (Hint: prepare the GST Clearing account to determine its final balance.)

d 'Profit isn't cash.' Comment on this statement and refer to examples from your budgets prepared in parts **a** and **b**.

SPREADSHEET

11 Preparation of budgeted reports

WB PAGE 386

Annemarie Burgess is the owner of Kayaks Deluxe. She provides the following information in relation to the business.

KAYAKS DELUXE: BALANCE SHEET AS AT 30 SEPTEMBER 2023

Assets	$	$	Liabilities	$	$
Accounts receivable		5400	Cash at bank	620	
Inventory		36000	Accounts payable	6000	
Prepaid insurance		720	GST clearing	1100	7720
Term deposit (maturing 31/12/24)		26 000			
Shop fittings	12000		**Owner's equity**		
Less: Accumulated depreciation	3600	8400	Capital		86800
Delivery van	20000				
Less: Accumulated depreciation	2000	18000			
		94520			94520

Additional information

- As the business has an overdraft on 30 September, the owner will contribute $2000 as additional capital on 2 October 2023.
- All of the business's accounts receivable with accounts outstanding as at 30 September are expected to pay during October, with the exception of one account for $500. This is expected to realise only $100, with the remainder being written off as a bad debt.
- The accounts payable as at 30 September will all be paid during October. One supplier with a balance of $2100 has agreed to accept $2000 in full payment of the account.
- Sales during October are expected to be $13 200 cash (plus GST of $1320) and $6800 on credit (plus GST of $680). Of the credit sales, about 10% is expected to be collected during October (including the related GST). It's hoped that the remainder will be received in November, but anticipating bad debts in the future, Burgess has decided to create an allowance for doubtful debts of $500 on 31 October.
- Burgess has stipulated that inventory levels are to increase 10% during October. The purchases required to achieve this goal during October will all be made on credit and will be paid during November.
- Management applies a fixed mark up percentage of 100% to all inventory sold.
- The prepaid insurance of $720 is the result of a yearly premium of $960 paid on 1 July 2023.
- The term deposit was taken out on 1 January 2022 and is earning 4% per annum. Interest is payable monthly.
- Depreciation is charged as follows: on the shop fittings 15% on cost per annum; on the delivery van 25% per annum on the reducing balance method.
- Monthly expenses usually incurred by the business are: advertising $400 (plus GST of $40), wages $2400, and rent $3600 (plus GST of $360).
- Rent is payable three months in advance on the first of January, April, July and October.
- The wages are paid as incurred, but only half of the advertising cost is expected to be paid during October.

- The owner expects to be granted a loan during October to purchase a computer system for the business in November. Although she's still shopping around for a system, she estimates that she will apply for approximately $6000.
- Owner's drawings are usually around $800 per week.

Using a spreadsheet, complete the following tasks:

a Prepare a budgeted income statement and a budgeted cash flow statement for the month ending 31 October 2023.

b Prepare a budgeted balance sheet as at 31 October 2023.

c Comment on the future of the business using information from your budgets in parts **a** and **b**. Outline any areas of concern or positive features from the three budgets.

12 Preparation of budgeted reports

WB PAGE 389 SPREADSHEET

Sue McKenna is the proprietor of Flash Photography, a retail outlet selling cameras and video equipment. She has supplied the following financial information and has asked for assistance in preparing the business's budgets.

FLASH PHOTOGRAPHY: BALANCE SHEET AS AT 30 JUNE 2023

Current assets	$	$	$	Current liabilities	$	$
Cash at bank		1700		Accounts payable	8200	
Inventory		28000		GST clearing	2200	
Accounts receivable		8600		Loan	6000	16400
Prepaid rent		6400	44700	**Owner's equity**		
				Capital		43100
Non-current assets						
Shop fittings	15000					
Less: Accumulated depreciation	5000	10000				
Office furniture	8000					
Less: Accumulated depreciation	3200	4800	14800			
			59500			59500

Additional information

- Sales for the month of July are estimated to be $16 200 (plus GST of $1620), of which 75% will be for cash. None of the credit sales will be settled until August or September.
- Accounts receivable as at 30 June 2023 are expected to pay as follows: 80% should pay during July and will be allowed a 2% discount, and the other 20% are expected to pay during August.
- The owner of the business maintains a fixed mark up on goods sold to ensure that gross profit is equal to one third of sales revenue.
- Management expects inventory to be up to $30 000 by the end of July. Purchases will be made on credit to achieve this goal. All credit purchases made by the business are settled in the following month.
- The proprietor of the business has arranged for a bank overdraft and has a limit of $10 000 approved by the bank.
- Rent on the shop is payable three months in advance. The last payment was made on 1 June 2023.
- Wages of the shop are usually $650 per week.

- A quarterly electricity bill for the period July September is due in the last week of September. It's usually about $240 per quarter, plus GST.
- Advertising handbills costing $600, plus GST of $60, will be purchased for cash on 2 July 2023. These handbills should all be used during July.
- Stationery will be purchased for cash during July for $150, plus GST of $15. All of this stationery is expected to be used by the end of July.
- Shop fittings are depreciated at the rate of 20% per annum using the reducing balance method, and office furniture at 10% per annum using the straight line method.
- A new computer is expected to be purchased on 31 July 2023 for $4800, plus GST of $480. The total owing will be paid on this date.
- The computer is to be depreciated at the rate of 33.3% per annum, using the reducing balance method.
- The loan is an interest only loan due for repayment on 31 July 2023. Interest of 10% per annum has been paid on the last day of every month for the past two years. The principal must be paid in full on 31 July 2023.
- The owner plans to withdraw $600 per week in cash.

Complete the following tasks. You may use a spreadsheet.

a Prepare a budgeted cash flow statement for the month ending 31 July 2023.

b Prepare a budgeted income statement for the month ending 31 July 2023.

c Prepare a budgeted balance sheet as at 31 July 2023.

d Comment on the future liquidity position of the business and its future profitability.

e Identify three items that appear in the budgeted cash flow statement that don't appear in the business's budgeted income statement.

f Identify three items that appear in the budgeted income statement that don't appear in the business's budgeted cash flow statement.

CASE STUDY

WB PAGE 391

Ben Doyle, the proprietor of Damascus Steel, makes the following predictions for his revenues and expenses for the yearly budget period ending 30 June 2023. The business specialises in high quality knife sets, which sell for $200 each.

<u>Revenues</u>		<u>Expenses</u>	
Cash sales	350 units @ $200 = $70 000	Wages casuals	34 000
Credit sales	200 units @ $200 = $40 000	Office expenses	2 500
		Advertising	5 300
		Insurance	2 200
		Depreciation	4 000
		Stock losses	5 000

Note: all goods in the business are usually marked up by 100% on cost price.

Doyle is concerned about the profitability of his business, and considering a range of strategies to improve his situation. He makes the following list for you to consider:

1 Employ additional casual employees. This will increase wages by 10% but is expected to increase cash sales by 8%.

2 Undertake a new advertising campaign at an additional cost of $1000 per month. The market research shows that a 10% increase in all sales may be possible.

3 Increase the mark up on all goods to 110%. This may cost the business some customers, and volume (based on the original estimates) will probably fall by approximately 2% on cash sales and 1% on credit sales.

4 Decrease the mark up on all goods to 90%. This is designed to attract new customers, and volume (based on the original estimates) is expected to increase both cash and credit sales by 12%.

---

a Using a spreadsheet, prepare a budgeted income statement based on Doyle's original estimates and determine his budgeted net profit for the year. (*Hint:* include cells for both the number of units sold and the dollar value. This will assist you when completing part **b**. You should also use formulas, when necessary, to determine all values within the spreadsheet.)

b Copy and paste your spreadsheet prepared in part **a** so that you have five versions of the one spreadsheet. Consider each of Doyle's strategies in turn, using a separate spreadsheet for each. You should end up with one spreadsheet that reflects the original situation, plus one for each of the four different strategies.

c Write a report, discussing the anticipated results of the four strategies. Recommend to Doyle what he should do to improve his profit result.

d Doyle is also worried about the level of stock losses. He's received quotes for a new security system that would include installing cameras around his business. The cost of the system is approximately $12 000, but Doyle expects his stock losses would be reduced to about $500 per year. Should he go ahead with the installation of the security system? Explain your answer fully.

CHAPTER CHECKLIST

Now that you have finished Chapter 20, double check your progress.

Are you ready for your Unit 4 exam?

I have …

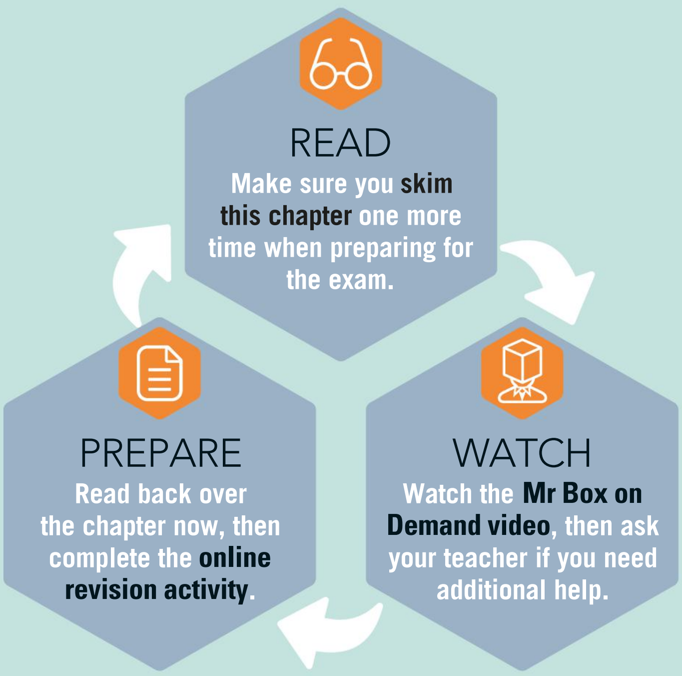
- completed all 'Check Your Understanding' questions
- completed all exercises
- completed the end of chapter activities
- handed in my workbook for marking.

I understand …

- the characteristics and use of classified budgeted accounting reports:
  - Budgeted Cash Flow Statement
  - Budgeted Income Statement
  - Budgeted Balance Sheet
- the analysis of historical and budgeted accounting reports, including a consideration of the limitations of analysis, to develop strategies to improve business performance
- the distinction between cash and profit.

I can …

- manually prepare classified budgeted accounting reports and variance reports
- use ICT, including spreadsheets, to prepare and analyse classified budgeted accounting reports and variance reports, and construct graphical representations.



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21 BUDGET VARIANCE REPORTS

Budgets are used to plan for the future, but they are always based on estimates. A certain degree of variance from estimates is inevitable, even in the most carefully prepared budget. What's more important is that management regularly reviews that variance and adjusts its plans accordingly.

In this chapter, you will learn about possible variances in a budget, and how to prepare reports that identify the causes of those variances.

LEARNING OBJECTIVES

By the end of this chapter, you will be able to:

- identify both favourable and unfavourable variances [21.1]
- suggest possible causes of variances [21.1]
- prepare budget variance reports [21.2].

UNIT 4 – PROGRESS 14 15 16 17 18 19 20 21 22 23

21.1 Reviewing budgets

21.2 Preparing budget variance reports

Chapter review and exercises

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21.1 REVIEWING BUDGETS

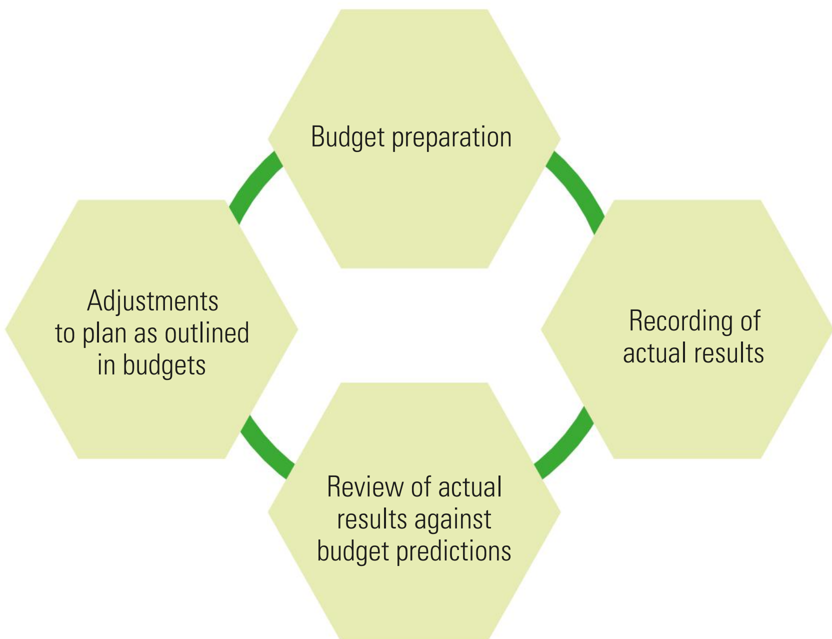
Budgeting is a tool that, if used properly, provides a plan for management to follow into future periods. This plan should anticipate improvements in the performance of the business. By developing a plan, management should be able to decide if it is satisfactory or if changes need to be made. This is the essence of budgeting: to plan and control future financial events expected by a business and its management.

Regardless of the type of budget being prepared, the budgeting process must remain flexible. As budgets involve predictions of future events, they're not expected to be perfect. They're simply a tool for planning future events and shouldn't be locked in indefinitely. Modifications should be made as more up to date information becomes available or as the performance of a budget is evaluated.

After preparing the required budgets, a business must check its performance against the budgets during the course of the budget period. Budgeting should be a continuous process, involving constant review.

The complete budgeting process is shown in Figure 21.1.

FIGURE 21.1 The budgeting process



BUDGET VARIANCE REPORTS

Figure 21.1 emphasises that budgeting should be an ongoing, continuous process. The biggest mistake management can make when preparing a budget is to follow the 'set and forget' approach. There's no point in preparing a detailed budgeting strategy if it's simply going to be filed away somewhere.

It's important, therefore, to develop a systematic approach to budget review to ensure that a business continuously controls its operations and carries out follow up action as required.

variance report (or performance report) an accounting report that compares budget predictions with the actual results achieved

A budget **variance report** (also known as a budget **performance report**) is prepared to show the differences between budget estimates and actual results. As a budget sets the expectations of management in terms of performance, it's important to review these results.

A budget variance report can be prepared for any type of budget. This report simply states the budgeted figure for an item, the actual results for that item and the variance between the two. A **variance** is the difference between budgeted and actual results:

- A **favourable** (or **positive**) **variance** occurs when the result is better than management expected.
- An **unfavourable** (or **negative**) **variance** is a result that is worse than that predicted by the budget.

For example, if sales were predicted as $8000, and $10 000 worth of sales was achieved, this would be a favourable variance. If the sales achieved were only $7000, it would be an unfavourable variance.

In the case of an expense item, if wages were budgeted at $3000 and only $2800 was incurred, this would also be seen as a favourable variance. If the wages expense was instead $3500, it would be an unfavourable variance.

variance the difference between a budget prediction and an actual result

favourable variance (or positive variance) a situation in which the actual result is better than the result predicted in the budget

unfavourable variance (or negative variance) a situation in which the actual result is worse than the result predicted in the budget

MANAGING BUDGET VARIANCE

It's often valuable to express the variances in both dollar terms and percentages. This helps identify the more significant variances, as minor variances are always expected to occur. A budget is based on estimates and will rarely be exact in its predictions.

Significant variances from budget should be investigated and any relevant notes made for future reference. If a budget contains many variances, management should attempt to find explanations for these and make adjustments in its future planning.

In large businesses, results above budget expectations are often rewarded. For example, a business may offer incentives to department managers if they achieve exceptional results. This helps to reinforce the concept of a budget setting goals for the business.

A budget variance report may also identify areas of concern. There may be cases of overspending where a manager hasn't kept within budget limits. This also requires a reaction from management, but in this case it would be a negative response. Disciplinary action, or perhaps even a demotion, may be the result of not following the objectives outlined in the budget.

If undesirable results are allowed to go on for too long, there's little chance of a budget being met. Therefore, even when a budget is prepared for a quarterly period, it should be reviewed after each month. If results aren't as expected, decisions must be made to get the plan back in line with what's outlined in the budget.

21.1 CHECK YOUR UNDERSTANDING

WB PAGE 396

1 Explain the purpose of a budget variance report.
2 'The preparation of a budget is only one part of the budgeting process.' Comment on this statement.
3 What is a variance? Should all variances be investigated by management?
4 'Budgeting is a continuous process.' Explain fully the meaning of this statement.

21.2 PREPARING BUDGET VARIANCE REPORTS

Because budget variance reports are prepared using the information from budget statements, we'll look back to the business of Smart Screen from Chapter 20 and use their budget statements to demonstrate a budget variance report.

Variance reports have been prepared to show the business's results in the month of July.

VARIANCE IN BUDGETED CASH FLOW STATEMENTS

The first variance report relates to Smart Screen's budgeted cash flow statement (p. 399).

Liquidity is vital to a trading business. In this case, the owner of Smart Screen is concerned that, even though cash sales are up, the final overdrawn balance is an even worse result than that anticipated in the budget.

The report in Figure 21.2 can help identify the reasons for this unexpected result. The F/U column notes whether each variance is favourable or unfavourable.

FIGURE 21.2 **Variance report for a budgeted cash flow statement**

SMART SCREEN: CASH FLOW STATEMENT VARIANCE REPORT FOR MONTH ENDED 31 JULY 2023

	Budget	Actual	Variance	F/U	%	Comments
	$	$	$			
Cash flows from operating activities						
Cash sales	7 000	7 700	700	F	10.0	Sunday trading
Collections from accounts receivable	3 234	2 934	300	U	9.3	Bad debt
GST received	700	770	70	F	10.0	Increased sales
Payments to accounts payable	(6 481)	(6 481)	Nil			
Wages – assistant	(1 520)	(1 840)	320	U	21.1	Sunday trading
Advertising	(200)	(200)	Nil			
Window cleaning	(240)	(240)	Nil			
Legal costs	Nil	(200)	200	U	100.0	Re: bad debt
Insurance	(600)	(660)	60	U	10.0	Premium increase
Telephone	(180)	(180)	Nil			
GST settlement	(500)	(500)	Nil			
GST paid	(122)	(128)	6	U	4.9	Insurance increase
Net cash provided by operating activities	1 091	975	116	U	10.6	
Cash flows from investing activities						
Nil						
Cash flows from financing activities						
Cash drawings	(2 000)	(2 400)	400	U	20.0	Car accident

Net cash used in financing activities	(2000)	(2400)	400	U	20.0	
Net increase (decrease) in cash held	(909)	(1425)				
Cash held at beginning of month	250	250				
Cash held at end of month	(659)	(1175)				

Two items appear in this variance report that the management of Smart Screen apparently ignored in their planning bad debts and legal costs didn't appear in any of the budgets prepared previously. These items have now been identified as part of the budget review and should become part of future planning.

On the positive side, management apparently decided to experiment with Sunday trading during July and, as a consequence, cash sales increased. (Unfortunately, this meant that the payment for wages also increased.) This has also been highlighted in the variance report and should be considered by management when preparing future budgets.

The budgeted cash flow statements for August and September, which were originally part of a quarterly budgeted cash flow statement, may have to be adjusted in light of July's results.

Ideally, at the end of each month, a budget variance report should be prepared, followed by a new quarterly report. This achieves the goal of budgeting as an ongoing process involving future planning that's continuously updated.

VARIANCE IN BUDGETED INCOME STATEMENTS

A budget variance report can also be prepared in relation to a budgeted income statement. The report is used to examine the profit performance of the business against the budget expectations set down at the start of the period. As the budget specifies the predictions of all revenue and expense items, the variance report can be used to highlight the major variations from this budget plan.

Figure 21.3 is the income statement variance report for Smart Screen for the month of July.

FIGURE 21.3 **Budget variance report for an income statement**

SMART SCREEN: BUDGET VARIANCE REPORT FOR THE MONTH ENDED 31 JULY 2023

	Budget	Actual	Variance	F/U	%	Comments
	$	$	$			
Revenue						
Credit sales	3000	3600	600	F	20.0	Sunday trading
Cash sales	7000	7700	700	F	10.0	Sunday trading
	10000	11300	1300	F	13.0	
Less: Cost of sales	5000	5650	650	U	13.0	Increased sales
Gross profit	5000	5650	650	F	13.0	Increased turnover

Other revenue						
Discount revenue	119	119	Nil			
	5119	5769				
Less: Other expenses						
Wages	1520	1840	320	U	21.1	Overtime
Advertising	200	200	Nil			
Window cleaning	240	240	Nil			
Insurance	50	55	5	U	10.0	Premium increase
Telephone	60	60	Nil			
Bad debts	0	300	300	U	100.0	I Shiftee
Legal costs	0	200	200	U	100.0	I Shiftee
Depreciation – shop fittings	200	200	Nil			
Total expenses	2270	3095	825	U	36.3	
Net profit	2849	2674	175	U	6.1	

This variance report clearly shows the favourable variances achieved in the revenue area. Management has noted the success of Sunday trading in achieving an increase in sales. In contrast to this is the unfavourable result in several expense items such as wages, bad debts and legal costs.

This shows how important it is to review every item individually, rather than simply comparing predicted profit with the actual result achieved. Although the budgeted profit figure was only $175 off the actual net profit for July, many different items caused this variance.

The management of Smart Screen may be happy with this variance report, since the experiment with Sunday trading appears to have produced additional revenue. Unfortunately, this didn't cause a substantial increase in profit, due to the business suffering bad debts of $300 and incurring some unexpected legal costs. Given that these events were probably unusual, though, management may look forward to improved future trading.

As with all budgeting procedures, the budgeted statements for August and beyond should take into consideration the information from the July variance report. For example:

- The owner should consider making allowance for future bad debts, particularly if the level of credit sales is likely to continue to increase.
- Sales estimates may have to be reviewed if additional trading hours are going to be maintained.

21.2 CHECK YOUR UNDERSTANDING

WB PAGE 397

1 'Variances shouldn't occur very often if budgets are done properly.' Do you agree? Explain your answer fully.

2 Explain the link between a variance report and management decision-making.

3 A favourable variance in sales revenue may cause some unfavourable variances in an income statement. State and explain three items that could have unfavourable variances as a result of a favourable variance in sales.

21 CHAPTER REVIEW

KEY CONTENT

- [21.1] Budgeting should be a continuous process, involving constant review. A business's performance is compared with the budgets as the budget period passes.
- [21.1] A variance report states the budgeted figure for an item, the actual results for that item and the variance between the two.
- [21.2] A budget variance report should be prepared at the end of every month, followed by a new quarterly report. This achieves the goal of budgeting as an ongoing process involving future planning that's continuously updated.

CHAPTER 21 EXERCISES

1 Variance report – cash flows

WB PAGE 398

The following comparison of budgeted cash flows and actual cash flows has been prepared for Broadway Formal Wear for the quarter ended 31 December 2023.

	Budget $	Actual $
Operating activities		
Cash sales	28 000	32 000
Collections from accounts receivable	10 000	12 000
GST received	2 800	3 200
Cash purchases	(1 200)	(800)
Payments to accounts payable	(18 000)	(22 000)
Wages	(2 700)	(2 500)
Insurance	(600)	(620)
Postage and telephone	(250)	(220)
Electricity	(320)	(340)
GST paid	(587)	(518)
Investing activities		
Purchase of new computer	(3 500)	(3 200)
Financing activities		
Additional capital	4 000	–
Drawings	(6 000)	(5 200)

The business had $840 in the bank on 1 October 2023.

a Using a spreadsheet, prepare a variance report for the quarter ended 31 December 2023 to reveal the significant differences between the budget and the actual results. Your report should also show the difference in the estimated bank balance and the actual bank balance as at 31 December 2023.

SPREADSHEET

b State the main reasons that caused the difference between the budgeted and actual bank balances. If possible, suggest reasons for these variances occurring.

c Do you think that a quarterly period is appropriate for budgeted cash flow statements? Give reasons for your answer.

SPREADSHEET

2 Variance report – cash flows

WB PAGE 400

Graeme Dickenson, the owner of Moon Fire New Age Books, prepares a budgeted cash flow statement on a regular basis. However, he's alarmed to see that his latest bank statement shows an overdrawn balance, when his budget estimated a debit balance of several thousand dollars.

Dickenson provides the following data and asks you to compare the budgeted and actual figures for the month of July 2023.

	Budget $	Actual $
Operating activities		
Cash sales	24 000	28 000
Collections from accounts receivable	12 000	10 600
GST collected	2 400	2 800
Wages	(10 400)	(12 200)
Advertising	(2 200)	(2 800)
Rent	(4 800)	(4 800)
Payments to accounts payable	(13 200)	(14 600)
Telephone	(240)	(200)
Office expenses	(200)	(240)
Cartage outwards	(520)	(600)
GST paid	(796)	(1 264)
Investing activities		
Purchase of display equipment	–	(4 000)
Financing activities		
Drawings	(2 400)	(3 600)
Bank balance start of month	440	440

a Using the data provided, prepare a budget variance report, including variances in dollar amounts and percentages, for Moon Fire New Age Books for July 2023. Your report should be a full statement of cash flows, including the final cash balances.

b Write a report to Graeme Dickenson, explaining clearly why the projected cash figure wasn't achieved. Your report should mention the significant favourable and unfavourable variances from the budget.

c Given the result of July, Dickenson is sceptical about preparing budgets in the future. He suggests that, because of the inaccuracy of the July budget, budgeting for his business is a waste of time. Comment on his reaction.

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3 Variance report – income statement

WB PAGE 402

The following information relates to the business of Salm's Disposal Store.

SALM'S DISPOSAL STORE: INCOME STATEMENT FOR MONTH ENDED 30 NOVEMBER 2023

	Budgeted $	Actual $
Revenue		
Cash sales	10 500	8 400
Credit sales	8 000	7 800
	18 500	16 200
Less: Cost of sales	9 000	10 500
Gross profit	9 500	5 700
Less: Other expenses		
Wages – sales staff	2 800	2 900
Advertising	2 600	2 000
Postage and telephone	150	160
Wrappings	360	320
Insurance	430	440
Interest on overdraft	100	140
Depreciation of fittings	800	800
Total operating expenses	7 240	6 760
Net profit	2 260	(1 060)

a Using a spreadsheet, prepare a budget variance report using the budgeted and actual data.

SPREADSHEET

b Write a report to the owner of the business explaining why the predicted profit for November wasn't achieved.

4 Variance report – income statement

WB PAGE 404

The management of Console Kingdom completes an income statement for the month of August 2023 and is surprised by the results. The following comparison of budgeted and actual results is available.

	Budgeted $	Actual $
Sales	22 000	26 000
Cost of sales	11 000	13 000
Wages	4 000	6 000
Office expenses	800	850
Rent	2 400	3 200
Bad debts	500	1 000

a Using a spreadsheet, prepare a budget variance report that shows both the budgeted and actual profit figures.

SPREADSHEET

b Comment on the changes in the following items: sales, cost of sales, wages, rent, and bad debts.

c Prepare two pie charts to break down the sales dollar into the various expenses and net profit. In one chart show the budgeted data; the other should show the actual results.

d Comment on any significant differences between the two pie charts prepared in part **c**.

SPREADSHEET

5 Budgeted cash flows with account reconstructions

WB PAGE 405

The owner of Benalla Music, Erik Heyden, needs help in preparing his budgeted reports. He's gone through his past records thoroughly and prepared a summary of what's happened and what he expects to happen. However, he's unsure how to determine estimated cash receipts from accounts receivable and estimated cash payments to accounts payable.

The following information is provided.

FROM THE BALANCE SHEET

	Actual 31 July 2023 $	Predicted 31 August 2023 $
Balance of inventory	26 000	36 400
Balance of accounts receivable	2 400	2 800
Balance of accounts payable	8 600	9 600
Balance of cash at bank	3 210	?

FROM THE INCOME STATEMENT

	Actual July 2023 $	Predicted August 2023 $
Cash sales	6 500	6 800
Credit sales	2 750	2 800
Cost of sales	4 500	4 600
Inventory loss	800	500
Wages	1 600	1 800
Office expenses	200	200
Discount expense	110	120
Discount revenue	150	160

a Reconstruct the following general ledger accounts to help Heyden with the preparation of his budgeted cash flow statement: Accounts Receivable, Inventory, and Accounts Payable. (Don't forget to allow for GST of 10% on all sales and purchases.)

b Using the above information, plus your reconstructions from part **a**, prepare a budgeted cash flow statement for Benalla Music for the month ending 31 August 2023. (*Note:* you may use a spreadsheet.)

c Taking into consideration your budgeted cash flow statement from part **b**, comment on the likely future cash position of this business.

d Prepare a budgeted income statement for the month ending 31 August 2023. (*Note:* you may use a spreadsheet.)

e Write a brief report on the future performance expectations of Benalla Music in relation to the expected profit or loss.

f 'Verifiability cannot be satisfied in the process of budgeting and therefore the budgeting process isn't all that valuable.' Comment on this statement.

ACCOUNTING IN THE REAL WORLD

WB PAGE 409

The process of budgeting for a small business involves making predictions and planning the future activities of the entity. Part of this planning may require making financial arrangements with a bank or other financial institution. Just as you might apply for a personal loan, overdraft or term deposit at some point in the future, small businesses may set up similar arrangements.

In this activity, you'll explore the different types of finance available to small business owners. Although not directly part of the VCE Accounting Unit 4 course, this task expands your knowledge of accounting for a small business and the related financial issues.

Visit at least two of the following websites:

- Commonwealth Bank
- NAB
- ANZ
- Westpac

(You can research a different bank or financial institution with your teacher's permission.)

Your task is to investigate what types of loans are available to business owners.

Prepare a summary of your findings that includes:

a the types of finance available

b a brief description of the nature of the finance

c any advantages of the type of finance being suggested (some may be provided on the site).

Commonwealth Bank	mea.digital/commbank
NAB	mea.digital/nab.com
ANZ	mea.digital/anz.com
Westpac	mea.digital/westpac

CHAPTER CHECKLIST

Now that you have finished Chapter 21, double check your progress.

Are you ready for your Unit 4 exam?

I have ...

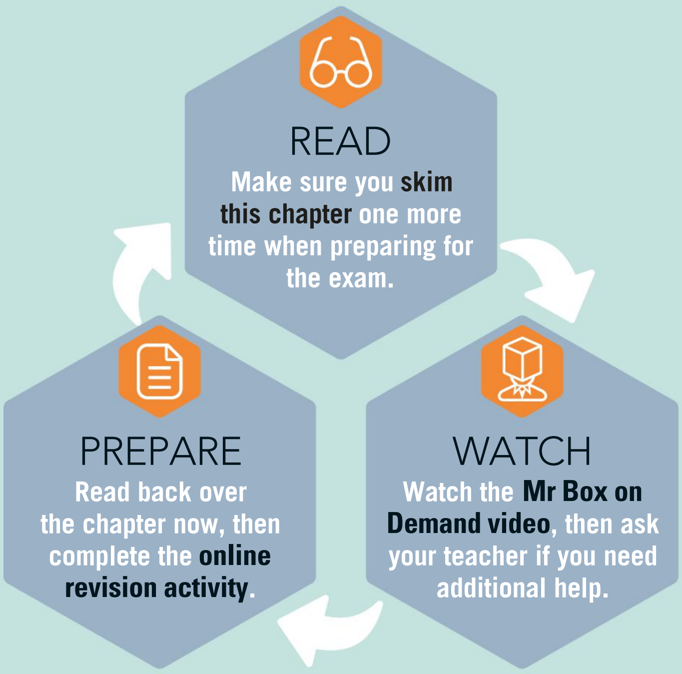
- completed all 'Check Your Understanding' questions
- completed all exercises
- completed the end of chapter activities
- handed in my workbook for marking.

I understand ...

- the characteristics and use of classified budgeted accounting reports:
  - Budgeted Cash Flow Statement
  - Budgeted Income Statement
  - Budgeted Balance Sheet
- the use of variance reports and trends for Cash Flow Statements and Income Statements.

I can ...

- manually prepare classified budgeted accounting reports and variance reports
- use ICT, including spreadsheets, to prepare and analyse classified budgeted accounting reports and variance reports, and construct graphical representations.



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22 EVALUATION OF BUSINESS PERFORMANCE

Throughout this year, you've studied different ways to measure and report on the operations, transactions and requirements of trading businesses. But what is the ultimate point of these reports? It's to evaluate how effectively a business is performing, and to help management make decisions that (hopefully) improve that performance.

In this chapter you'll learn about key financial indicators for a business, and how accounting reports on these indicators are used to inform decisions.

LEARNING OBJECTIVES

By the end of this chapter, you will be able to:

- outline the meaning of vertical and horizontal analysis [22.1]
- explain the role of financial indicators, including ratios [22.2]
- give examples of benchmarks that can be used to measure performance [22.2]
- comment on the results of ratio analysis [22.2]
- prepare a variety of indicators to examine the areas of profitability and operating efficiency [22.3 & 22.4]
- calculate changes in performance in both dollar and percentage terms [22.3 & 22.4]
- evaluate the performance of a business using data from several reporting periods [22.3 & 22.4].

UNIT 4 – PROGRESS 14 — 15 — 16 — 17 — 18 — 19 — 20 — 21 — 22 ··· 23

22.1 The role of financial evaluation

22.2 Analytical ratios

22.3 Profitability indicators

22.4 Operating efficiency indicators

Chapter review and exercises

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22.1 THE ROLE OF FINANCIAL EVALUATION

The evaluation of reports is a vital part of the accounting process. As accounting provides financial information for managers to use in making better decisions, they must interpret the information correctly. If accounting reports aren't analysed correctly, any decisions based on that analysis could affect the future of a business.

Planning for the future operations of a business usually takes into account the reporting of past results of the business. It's important, therefore, that information is reported in a clear, easily understood fashion that allows management to interpret the results and make the right decisions. Figure 22.1 shows where evaluation fits in the overall accounting process.

FIGURE 22.1 The place of evaluation in the accounting system

Evaluation provides additional information to that already available in financial statements, such as the income statement and the balance sheet. The techniques of evaluation should improve the quality of the information available to management. This may be done using such tools as year to year comparisons, percentages as well as dollar values, ratios, charts and graphs.

Evaluation of reports involves two distinct processes:

- **analysis** is breaking down something complex into simpler, smaller parts.
- **interpretation** is then explaining the meaning of the completed analysis.

analysis
the process of breaking down something complex into simpler, smaller parts

interpretation
the process of explaining the meaning of a financial item or analytical ratio

vertical analysis
breakdown of an accounting report into percentages in a vertical fashion on the page

VERTICAL ANALYSIS

A simple form of analysis is to present the income statement in both dollar terms and percentages. This is known as **vertical analysis**, because the accounting report is analysed in a vertical fashion.

The income statement based on dollar values provides limited information. When the same report is analysed (or broken down) into percentages, additional information becomes available.

An example of a vertical analysis is shown in Figure 22.2. It shows the 2023 performance of the business Twitchstream Tees, which sells T shirts based on popular Twitch shows and performers.

FIGURE 22.2 Vertical analysis of an income statement

	$	%
Sales	80 000	100.00
Less: Cost of goods sold	40 000	50.00
Gross profit	40 000	50.00

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Less: Other expenses		
Wages	15 000	18.75
Office expenses	5000	6.25
Advertising	6000	7.50
Interest	4000	5.00
Total expenses	30000	37.50
Net profit	10000	12.50

Management can now interpret this report in terms of the percentage of the sales dollar consumed by each expense. The percentage of the sales dollar earned as both gross profit and net profit is also available. This information wasn't readily available in the normal statement.

The vertical analysis in Figure 22.2 shows that, on average, 50% of the sales dollar earned by Twitchstream Tees was consumed by its cost of sales. (This is an average only, as the business varies its mark up on the different T shirts it sells.) Over the year, half of its sales revenue was eaten away by cost prices, thus leaving 50% of the sales dollar as gross profit.

Note that an increase in the business's mark up would lead to an increase in this **gross profit margin** (gross profit/sales). On the other hand, if cost prices increased and selling prices remained unchanged, the gross profit margin would fall.

gross profit margin the percentage of the sales dollar remaining after cost of goods sold has been taken into accounts

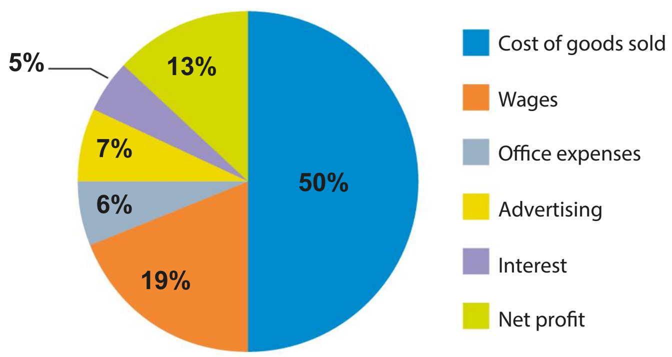
Having established a gross profit percentage, it can also be seen that:

- wages consumed 18.75% of the sales dollar
- 6.25% went in office expenses
- advertising used up 7.5% of sales
- interest expense consumed 5% of the sales dollar.

The end result is that 12.5% of total sales remained as net profit at the end of the period (net profit/sales). This type of data is often represented in pie chart form, which is an excellent way of demonstrating changes that may occur from one period to the next.

Figure 22.3 shows a pie chart for the above income statement.

FIGURE 22.3 Pie chart showing breakdown of sales dollar



Vertical analysis allows statements to be presented as percentages for each reporting period. Translating accounting reports from dollars to percentages provides a common base, which allows comparisons to be made more easily. **Common size statements** are reports based on percentages, rather than actual dollar amounts, to assist comparison of results.

common size statements reports that use percentages rather than dollar values, to allow easier comparison of results

HORIZONTAL ANALYSIS

horizontal analysis comparison of financial results across the page, usually by reporting on several consecutive trading periods

A second form of analysis uses horizontal comparisons of multiple trading periods. Continuing with the example of Twitchstream Tees, a **horizontal analysis** can be performed as shown in Figure 22.4.

FIGURE 22.4 Horizontal analysis of the income statement

	2021		2022		2023	
	$	%	$	%	$	%
Sales	60000	100.00	80000	100.00	80000	100.00
Less: Cost of goods sold	33000	55.00	45000	56.25	40000	50.00
Gross profit	**27000**	**45.00**	**35000**	**43.75**	**40000**	**50.00**
Less: Wages	10000	16.67	14000	17.50	15000	18.75
Office expenses	4000	6.67	5000	6.25	5000	6.25
Advertising	5000	8.33	6000	7.50	6000	7.50
Interest	1000	1.67	2000	2.50	4000	5.00
Total expenses	20000	33.33	27000	33.75	30000	37.50
Net profit	**7000**	**11.67**	**8000**	**10.00**	**10000**	**12.50**

As all three reports express each item as a percentage of sales, they can now be compared horizontally across the page. For example, although Twitchstream Tees' net profit increased from $7000 to $8000, and then from $8000 to $10 000, it hasn't remained a constant percentage of sales:

- 2021: net profit as a percentage of sales was 11.67%
- 2022: net profit as a percentage of sales was only 10%
- 2023: net profit as a percentage of sales increased to 12.5%

Vertical analysis can then be used to explain why certain changes have occurred over time. For example, it looks like the 2022 fall in the net profit percentage was caused by the fall in the gross profit rate.

Note that the percentage consumed by expenses was virtually constant in 2021 and 2022. However, a problem may be developing, as the total consumed by expenses jumped from 33.75% in 2022 to 37.5% in 2023.

Management can use such analysis to pinpoint problems and make decisions to correct the situation. For example, two expenses (wages and interest) have increased as a percentage of sales each year. These two areas may need to be reviewed and monitored carefully in the future to ensure they don't reduce future profits.

The use of pie charts can also support horizontal analysis, as they allow for easy comparisons over consecutive periods. The Twitchstream Tees horizontal analysis can be presented as shown in Figure 22.5.

Pie charts provide an instant overview of major changes within a business. The most obvious change shown in Figure 22.5 occurred with cost of goods sold, which dropped from 56.25% in 2022 to only 50% in 2023. Net profit increased slightly over the same period.

Some users of accounting reports prefer pie charts to pages of numerical data, because of their visual impact. As long as the information they present is accurate, pie charts can be a valuable tool for accountants.

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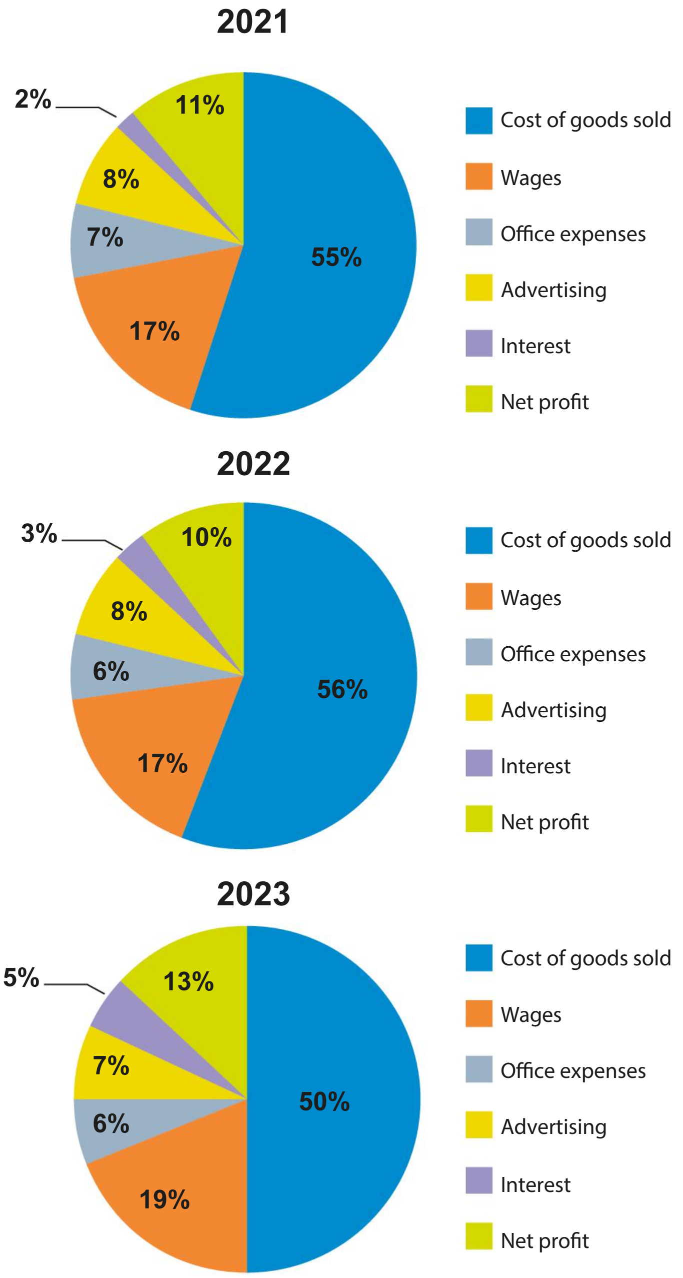
FIGURE 22.5 **Comparative pie charts over consecutive reporting periods**



COMBINED ANALYSIS

A combination of vertical and horizontal analysis can be used to examine a business's performance over several reporting periods. Management can then identify changes in revenues and expenses over time and take appropriate action.

It's essential to use comparative data *over time*, as one year's data may not present the full picture. Vertical analysis can provide detailed information about the current reporting period, but when this is compared with previous periods, it may be seen differently.

Consider the following example, which compares the performance of two different businesses.

	2023	
	Business A $	Business B $
Sales	50 000	50 000
Net profit	10 000	10 000

The above figures simply state that the sales and profit figures for both businesses were the same in 2023. Both businesses earned a profit that was 20% of sales revenue (10/50 = 0.20).

However, vertical analysis is limited, as it only considers the one period. If previous years' figures are also available, it might lead to a different opinion of the two business' performance.

The following shows a three year comparison.

	Business A			Business B		
	2021 $	2022 $	2023 $	2021 $	2022 $	2023 $
Sales	30 000	40 000	50 000	70 000	60 000	50 000
Net profit	3 000	6 000	10 000	25 000	20 000	10 000

When the results of the three years are compared, Business A appears to have performed much better in 2023 than Business B.

This horizontal analysis can be used to produce data relating to comparisons of one year against another. For example, using the given data, you can see that:

- during 2023, Business A increased sales revenue by 25% (an increase of $10 000 on the $40 000 earned in 2022)
- Business A's profit in 2023 was $10 000 $6000 = $4000, or 66.7% ($4000/$6000) above that achieved in 2022
- in contrast to the results achieved by Business A, Business B experienced a drop in sales of $60 000 $50 000 = $10 000, or 16.7% ($10 000/$60 000), as well as a 50% decrease in profit.

trend analysis
measuring the change in a financial item or an indicator over several periods

Comparing one year's data to that of one or more previous years provide management with a trend of the business's performance. **Trend analysis** involves measuring the change in an item from one year to another. For example, 2023 may be compared with 2022, or with 2021; we may even look at the trend over five or ten years.

22.1 CHECK YOUR UNDERSTANDING

WB PAGE 411

1 Explain the role played by the evaluation of reports in the overall accounting system.
2 Distinguish between analysis and interpretation.
3 Explain why percentages are often used in the process of analysis and interpretation.
4 Describe the differences between vertical and horizontal analysis.
5 Explain why data from several periods is preferred to a single set of results when evaluating the performance of a business.

22.2 ANALYTICAL RATIOS

When final accounting reports have been prepared, they offer a wide range of financial information to users. However, accountants will often extract and compare different pieces of information to find out more about the business. This process creates an analytical ratio.

An **analytical ratio** is the mathematical comparison of two items that have a particular relationship. For example, a comparison of current assets and current liabilities measures the liquidity of a business. Profit for a period can be compared with the investment made in the business to measure its **profitability**.

Analytical ratios are also known as *financial indicators*, as management uses them to measure financial performance over different periods. This is possible because these indicators bring all figures back to a common base.

For example, sales in one period may be $123 460, but increase to $125 870 in the following period. Such odd amounts make comparisons difficult. However, if sales for both periods are made to equal 100%, comparisons are possible, and expenses can all be expressed as a percentage of sales revenue.

The previous examples of income statements showed how the results of several periods can be compared, and trends detected in particular areas within the business. The vertical analysis in Figure 22.2 (p.434 5) is based on a collection of financial indicators. Some examples contained in Figure 22.2 are:

- **gross profit margin**, which is gross profit divided by net sales
- **expense ratios** for example, wages divided by net sales
- **net profit margin**, which is net profit divided by net sales.

These financial indicators are only one type of ratio, as they all relate to the income statement and the profitability of the business.

Financial indicators are an important part of evaluation because they make it possible to compare data from different periods.

analytical ratio a comparison of two related items in order to analyse an aspect of business performance

profitability a comparison of profit with a base figure, such as assets employed, capital invested or sales made

expense ratio (expense/sales) may also be used for total expenses (total expenses/sales)

net profit margin (net profit/sales) the percentage of the sales dollar that remains after all expenses have been taken into account

benchmarks tools used to measure performance by comparing financial results against some established criteria

FINANCIAL INDICATORS AND BENCHMARKS

When financial indicators are calculated, they're usually compared to **benchmarks** of measurement or performance. These are used to measure the success (or otherwise) of business decision making.

Typical benchmarks include comparisons with the following:

- *Previous periods' results.* These allow a trend in an indicator to be detected.
- *Industry averages, or comparisons with other similar businesses.* Although such information isn't always publicly available, an accountant may be able to state if a business's performance is above or below that of similar businesses.
- *Budget estimates, or predicted results.* Even if financial indicators reflect an improved performance (compared to previous periods), they may not have achieved the level of performance in management's targets.
- *Alternative investments.* Indicators that are used to examine profitability should be compared against the rates of return available on other forms of investment. There may be little value in investing in a business if a greater return is available in the money market.

Whenever an indicator is calculated, it should be compared with one or more benchmarks to give it some sort of meaning. The benchmarks used will vary depending on the particular indicator.

As long as financial indicators are calculated in a consistent manner, they can provide management with detailed information about the performance of the business in a number of areas.

MAIN TYPES OF FINANCIAL INDICATORS

There are literally hundreds of financial indicators that can be calculated to measure different aspects of a business's performance. This text will only cover the most important indicators that relate to the sole trader type of business.

While it's important to appreciate that indicators interrelate with one another, they can be grouped into four main areas:

1. **Profitability indicators**. These examine how profitable the business has been during the period. Profitability may be measured by comparing profit with an investment, by looking at what happened to the sales dollar during a period (see Figure 22.3), or by other means.
2. **Operating efficiency indicators.** These look at how efficiently management uses the assets available to them. Investment in inventory, accounts receivable, current assets or non current assets can all be examined in terms of how efficiently they have been used and managed.
3. **Liquidity indicators.** These investigate the ability of the business to meet its short term debts as they fall due. Liquidity indicators are usually based on short term events, and consider items relevant to the next 12 months of a business's operations.
4. **Stability indicators.** These measure a business's financial stability and reflect the financial risk being taken on by the business owners.

EXAM SUCCESS
You will not be asked to calculate indicators on the VCE exam, but you must be able to explain what each indicator measures, and whether or not it has improved or deteriorated.

These four types of financial indicators are explained in this and the next chapter.

Remember that one indicator may have a direct impact on another indicator in a different area:

- An indicator that shows how efficiently assets have been used may affect one or more profitability indicators.
- Liquidity indicators take into consideration the current liabilities of a business. As this may involve loans, and loans attract interest, this may also have an impact on profitability.

Keep in mind the possible relationships between indicators as you study this topic.

22.2 CHECK YOUR UNDERSTANDING

WB PAGE 412

1. Why do accountants prepare analytical ratios when a wide range of information is already available in final accounting reports?
2. Explain the purpose of benchmarks in ratio analysis.
3. Name three benchmarks that can be used to evaluate the profit figure of a business.
4. Describe the different areas of a business that can be evaluated by financial indicators.

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22.3 PROFITABILITY INDICATORS

Before we look at individual profitability indicators, it's important to distinguish between the terms 'profit' and 'profitability'.

- *Profit* is simply the dollar value determined when expenses incurred are deducted from revenue earned over a given period.
- *Profitability* is the comparison of a profit figure with a base figure, such as the investment made.

When attempting to measure a business's profitability, it's necessary to go beyond simply determining a net profit for a period. Profitability indicators not only examine how profitable a business has been, but also look at the reasons for changes in its profitability.

The most important profitability indicators are examined in detail below.

GROSS PROFIT MARGIN

$$\text{Gross profit margin} = \frac{\text{Gross profit}}{\text{Net sales}} \times 100$$

One of the most important factors that influence the profit of a trading business is the percentage of the sales dollar earned as gross profit. The relationship between the cost price and the selling price of the goods sold by the business is crucial to profitability.

If cost prices increase over time, but selling prices remain constant, the gross profit margin will fall. If management decides to increase the general mark up on the inventory sold, the gross profit margin will increase.

The following data demonstrates the gross profit margin for Twitchstream Tees.

	2022 $	2023 $
Net sales	80 000	100 000
Less: Cost of goods sold	40 000	55 000
Gross profit	40 000	45 000
Gross profit margin	$40 000	$45 000
	$80 000	$100 000
	= 0.50:1	= 0.45:1
	or 50.0%	or 45.0%

The gross profit margin for this business dropped from 50% in 2022 to 45% in 2023. This indicator tells management that, although sales increased by $20 000 over the year, the percentage of the sales dollar maintained as gross profit decreased.

This occurred because, on average, cost of goods sold consumed $0.50 out of each sales dollar in 2022, and this increased to $0.55 cents in 2023. This may have occurred because:

- cost prices increased, while selling prices remained constant
- cost prices remained constant, while selling prices were decreased
- both cost prices and selling prices increased, but cost prices increased at a greater rate.

When evaluating a gross profit margin, it's important to compare it against benchmarks such as the previous periods' gross profit margins and the budgeted gross profit rate.

NET PROFIT MARGIN

$$\text{Net profit margin} = \frac{\text{Net profit}}{\text{Net sales}} \times 100$$

The net profit margin achieved by a business is the relationship between its total revenues and total expenses. Once the gross profit rate has been calculated, the level of the business's operating expenses determines the percentage of the sales dollar that remains as the net profit for the period.

The following shows data relating to Twitchstream Tees' operating expenses.

	2022 $	2023 $
Net sales	80 000	100 000
Less: Cost of goods sold	40 000	55 000
Gross profit	40 000	45 000
Less: Wages	10 000	15 000
Office expenses	5 000	5 000
Total expenses	15 000	20 000
Net profit	25 000	25 000
Net profit margin	$25 000	$25 000
	$80 000	$100 000
	= 0.31:1	= 0.25:1
	or 31.0%	or 25.0%

An obvious question in relation to Twitchstream Tees is: *why did their profit remain at the level of $25 000 when sales increased by $20 000?*

The net profit margin indicates that in 2022 about 31 cents in the dollar was earned as profit, and that this figure has dropped to 25 cents in the dollar in 2023. This return on sales should be compared with the rate achieved in past periods, the budgeted rate and the rate achieved by similar businesses. Although each business is unique in terms of its own revenues and expenses, if similar businesses earn a much higher net profit margin, this can act as a warning signal that something may be wrong.

Having determined this result, the question then becomes: *how did it occur?*

One possible cause is the 5% drop in the gross profit margin, which flowed on to affect the net profit margin. Another possible cause is the change in expenses.

EXPENSE RATIOS

$$\text{Expense ratio} = \frac{\text{Expense item}}{\text{Net sales}}$$

A percentage rate can be calculated for each individual expense item. Such expense ratios inform management about the percentage of the sales dollar consumed by each expense.

For Twitchstream Tees, two calculations can be made, as shown on the next page.

	2022 $	2023 $
Wages expense ratio	10 000	15 000
	80 000	100 000
	= 0.125:1	= 0.150:1
	or 12.5%	or 15.0%
Office expenses ratio	$5 000	$5 000
	$80 000	$100 000
	= 0.0625:1	= 0.05:1
	or 6.250%	or 5.00%

These two expense ratios show contrasts in their trends.

The wages of the business consumed 12.5 cents of each sales dollar in 2022, and this increased to 15 cents in 2023. This may be expected to occur because sales increased by $20 000 over this time. However, the increase in selling expenses occurred at a greater rate than the increase in sales (50%, compared with 25%). Thus, in 2023 the business's profitability was reduced by the large increase in wages expenses.

The office expenses ratio shows a drop from 6.25% to 5% over the two years. In this case the expense in dollar terms didn't change. As sales increased in 2023, office expenses as a percentage of sales actually decreased. This could be because the expenses incurred in running the office may be constant in nature. Items such as postage, telephone and stationery may not vary much from one year to the next.

Expense ratios should be compared with previous periods' results and the expense budgets set down by management. Unexpected expense items and major changes in expense ratios should always be investigated, as they have a direct impact on the business's net profit margin.

RETURN ON ASSETS

$$\text{Return on assets} = \frac{\text{Net profit}}{\text{Average total assets}} \times 100$$

The financial indicators demonstrated so far examined relationships that exist within the income statement. Another way of measuring the profitability of a business is to compare the net profit for the period with the amount invested in the business' assets.

Rather than using the value of total assets at the beginning or end of the period, an average of these two values is normally used. This removes any bias that may exist if total assets change in a significant manner right near the end of the period. By using an average of asset value, the profit can be compared with the average level of investment. If the data is available, an average based on monthly figures would be even more accurate.

Once the method of calculating the rate of return has been decided, it should be consistently applied each reporting period (as required by the qualitative characteristic of *comparability*). If this isn't done, meaningful comparisons become more difficult, as changes in the ratio may occur simply because of a change in the method of calculation.

The following information is used to calculate Twitchstream Tees' **return on assets**.

return on assets how well management has used its investment in assets to earn profit

	2021 $	2022 $	2023 $
Total assets	120 000	130 000	140 000
Net profit		25 000	25 000

For 2022:

$$\text{Return on assets} = \frac{\text{Net profit}}{\text{Average total assets}}$$

$$= \frac{\$25\ 000}{(\$120\ 000 + 130\ 000) \div 2} = \frac{\$25\ 000}{\$125\ 000} = 0.2 \text{ or } 20\% \text{ return}$$

For 2023:

$$\text{Return on assets} = \frac{\$25\ 000}{(\$130\ 000 + 140\ 000) \div 2} = \frac{\$25\ 000}{\$135\ 000} = 0.185 \text{ or } 18.5\% \text{ return}$$

The results of the return on assets can be interpreted in two different ways.

First, it can be expressed in terms of the profit earned for every dollar invested in the business's assets. In the above example, in 2022 Twitchstream Tees earned 20 cents of profit for every dollar invested in assets. In 2023, an unfavourable trend was experienced when the return on assets dropped to only 18.5 cents of profit for every dollar invested.

return on owner's investment the return earned on the investment of funds by the proprietor of a business

Second, it can be expressed in terms of the **return on owner's investment**. In 2022, Twitchstream Tees earned a return of 20% per annum on its investment, but only 18.5% in 2023. The return on assets is often expressed in these terms, as owners use this as a comparison with alternative investments. This is one of the benchmarks that can be used to evaluate a rate of return.

The other usual benchmarks are still valid for this financial indicator since the results can be compared with previous years, budget expectations and returns achieved by similar businesses.

RETURN ON OWNER'S INVESTMENT

$$\text{Return on investment} = \frac{\text{Net profit}}{\text{Average capital}} \times 100$$

A percentage return may also be calculated on the actual investment made by the owner of the business.

An owner will usually be interested in the return being earned on the capital they've invested in their business. As many small businesses fund some of their assets through liabilities, there may be a significant difference between total assets and owner's equity.

The following details expand the Twitchstream Tees example:

	2021 $	2022 $	2023 $
Capital	70 000	80 000	90 000
Total assets	120 000	130 000	140 000
Net profit		25 000	25 000

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For 2022:

$$\text{Return on owner's investment} = \frac{\text{Net profit}}{\text{Average capital}}$$

$$= \frac{\$25\,000}{(\$70\,000 + 80\,000) \div 2} = \frac{\$25\,000}{\$75\,000}$$

$$= 0.33 \text{ or } 33\% \text{ return}$$

For 2023:

$$\text{Return on owner's investment} = \frac{\text{Net profit}}{\text{Average capital}}$$

$$= \frac{\$25\,000}{(\$80\,000 + 90\,000) \div 2} = \frac{\$25\,000}{\$85\,000}$$

$$= 0.294 \text{ or } 29.4\% \text{ return}$$

The return on owner's investment fell from 33% in 2022 to 29% in 2023. This is an unfavourable trend, as the owner's capital has earned a lower return on the average level of investment.

As with the return on assets, an average of the owner's capital is the preferred figure to be used in this financial indicator. However, capital at the beginning or end of the year may be used as alternatives. The important thing is always to calculate the ratio using the same method consistently from one year to the next.

When evaluating an owner's personal return on investment, the usual benchmarks include comparisons with:

- alternative investments in the money market
- the budgeted, or expected, rate of return
- previous periods' rates of return.

When evaluating the return on an owner's investment, remember that the desired return may be based on a personal target. Many owners seek a return much higher than that available in the commercial market, as a reward for their hours of work and the financial risk.

Another factor to take into account is that an owner's return on investment doesn't always equal the amount available for drawings. The return earned on alternative investments may be paid in cash each year, but this isn't always possible when running a business. Funds may have to be retained to finance the future plans of the business. For these reasons, an owner may want a much higher return on investment compared with many other types of investments.

22.3 CHECK YOUR UNDERSTANDING

WB PAGE 413

1 Business A earned a profit of $20 000, while Business B had a profit of $30 000. Explain how it's possible that Business A has a higher profitability.
2 The gross profit margin of a business was 50% in 2022 and 55% in 2023. Explain how it may have achieved this increase.
3 How is the net profit margin calculated? What does this ratio indicate?
4 Explain why the average assets figure is preferable to assets at the end of a period when calculating the return on assets ratio.
5 What is the purpose of calculating a return on owner's investment if the return on assets has already been determined?

22.4 OPERATING EFFICIENCY INDICATORS

A trading business purchases assets for the purpose of generating revenue. Money is invested in assets such as fittings, delivery vehicles and inventory to help the business earn a profit. If a business uses its assets to their maximum operating efficiency, the result should be maximum profit.

The financial indicators in this section illustrate how efficiently a business uses its various types of assets. However, always remember that efficiency indicators have a direct impact on the profitability ratios covered earlier, as assets are used to generate revenue, which ultimately determines the level of profit earned for the period.

ASSET TURNOVER

$$\text{Asset turnover} = \frac{\text{Net sales}}{\text{Average total assets}}$$

asset turnover how well assets have been used to generate sales

Asset turnover compares sales revenue with the average investment in the business's total assets. By doing so, it gives management information about how well the assets of the business have been used to generate revenue.

The asset turnover for Twitchstream Tees is calculated as follows:

	2021 $	2022 $	2023 $
Sales		80 000	100 000
Total assets	120 000	130 000	140 000

For 2022:

$$\text{Asset turnover} = \frac{\text{Net Sales}}{\text{Average total assets}} \quad \text{x } 100$$

$$\text{Asset turnover} = \frac{\$80\ 000}{(\$120\ 000 + 130\ 000) \div 2} = \frac{\$80\ 000}{\$125\ 000} = 64\%$$

For 2023:

$$\text{Asset turnover} = \frac{\$100\ 000}{(\$130\ 000 + \$140\ 000) \div 2} = \frac{\$100\ 000}{\$135\ 000} = 74\%$$

This trend is a favourable result, because the dollars invested in Twitchstream's assets have generated a higher rate of sales turnover. The more times the investment in assets is turned into sales, the better it is for the business because this reflects a more efficient use of the assets available to management.

Another way of looking at this ratio is that, for every dollar invested in assets, 64 cents of sales revenue was generated in 2022, which increased to 74 cents for every dollar invested in 2023. Alternatively, the dollars invested in assets generated a 64% return in terms of sales, and this increased to 74% in 2023.

If the asset turnover rate decreased in a given period of time, it would mean that assets aren't generating the same amount of revenue. For example, if assets weren't used during the period, this would be reflected in the turnover rate.

CLASSIFIED ASSET TURNOVER

Asset turnover rates may also be calculated for specific classifications of assets. That is, a turnover rate may be calculated for current assets or non current assets:

$$\text{Current asset turnover rate} = \frac{\text{Net sales}}{\text{Average current assets}}$$

$$\text{Non-current asset turnover rate} = \frac{\text{Net sales}}{\text{Average non-current assets}}$$

Asset turnover rates may be calculated on a classification basis to reveal problem areas within the business.

If the overall asset turnover decreases each year, management may need further information to locate the problem. For example, perhaps non current assets have maintained the same relationship with sales revenue for several periods, while the current asset turnover rate shows a steady decrease. This identifies the problem area, and management is then in a better position to correct it.

All turnover rates should be compared with some established benchmarks. The usual ones used include previous periods' figures, budget estimates and, if appropriate, similar businesses or industry averages.

The last of these benchmarks isn't always suitable for these indicators, as the asset structure of businesses can vary greatly. If comparisons with other businesses are to be made, management must first ensure that those comparisons are valid. Otherwise, they should use internal benchmarks, such as last year's results and the budgeted rates.

OTHER ANALYSIS TOOLS

When analysing the operating efficiency of a business, the asset turnover rate provides a general guide as to how well management has used its assets during a reporting period. However, this rate is general in nature and takes into account all the assets under the control of the entity.

More specific detail can be provided about the business's assets by using several tools of analysis that were covered in Chapter 14. These include:

- inventory turnover
- accounts receivable turnover
- age analysis of accounts receivable
- cash cycle
- accounts payable turnover.

Since these items were explained in Chapter 14, it's not necessary to cover them again in detail. However, it's important to keep them in mind as part of an overall analysis of a business's performance, so a brief summary of them is provided here.

Inventory turnover

$$\text{Inventory turnover} = \frac{\text{Average inventory} \times 365}{\text{Cost of goods sold}}$$

This indicator determines the number of days a business takes to turn the average level of inventory into sales. Inventory turnover is used to evaluate performance in managing and controlling inventory.

When interpreting inventory turnover rates, consider:

- the type of inventory being sold
- previous periods' results (i.e. the trend)
- management's expectations or budget objectives.

Accounts receivable turnover

$$\text{Accounts receivable turnover} = \frac{\text{Average accounts receivable x 365}}{\text{Net credit sales (plus GST)}}$$

The accounts receivable turnover examines the performance of management in collecting its debts from credit customers. It's expressed in days and is used to assess the average time taken by accounts receivable to settle their accounts. The accounts receivable turnover can be used to evaluate performance in relation to controlling and managing credit accounts.

When interpreting accounts receivable turnover results, the usual benchmarks include:

- the credit terms originally offered to accounts receivable
- accounts receivable age analysis (see below)
- previous periods' results (i.e. the trend)
- management's expectations or budget objectives.

Age analysis of accounts receivable

This tool is another method for analysing the performance of management in relation to accounts receivable. An age analysis can be prepared on a regular basis to provide a breakdown of accounts receivable in relation to the age of their debts. It can provide a business owner with regular feedback on the success or otherwise of their collection procedures.

The results can also be measured by:

- the credit terms originally offered to accounts receivable
- previous periods' results (i.e. the trend)
- management's expectations or budget objectives.

Cash cycle

Cash cycle = Inventory turnover + Accounts receivable turnover

The addition of the two turnover rates provides management with an assessment of the time taken to turn inventory into sales, and then sales into cash.

For a trading business, the cash cycle is crucial. The cycle of buying inventory, selling it, and then collecting cash from its sales is the reason trading businesses exist. Ultimately, it's the process that determines the success or failure of so many Australian small businesses. If management can't complete the cash cycle within a certain time, it's doomed to fail.

When evaluating the cash cycle, consider the following:

- the performance of the individual turnover rates
- previous periods' results (i.e. the trend)
- management's expectations or budget objectives
- accounts payable turnover rate.

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Accounts payable turnover

$$\text{Accounts payable turnover} = \frac{\text{Average accounts payable} \times 365}{\text{Net credit purchases + GST}}$$

This indicator is used to evaluate the management of accounts payable. It's expressed in days, with the result being the average time taken to settle accounts with suppliers.

This indicator should be compared to the accounts receivable turnover and/or the cash cycle of the business. Finding a balance between the time taken to complete the cash cycle and the time taken to settle accounts payable is important in managing cash within a small business. At times, management may have to extend the accounts payable turnover rate simply because it's unable to complete the cash cycle at a fast enough rate.

Things to consider when interpreting results of the accounts payable turnover include:

- cash cycle results
- credit terms offered by suppliers
- previous periods' results (i.e. the trend)
- management's expectations or budget objectives.

EFFICIENCY RATIOS AND PROFITABILITY

The way management uses a business's assets has a direct impact on the profitability of the business.

Two key ratios already examined are the net profit margin and asset turnover.

$$\text{Asset turnover} = \frac{\text{Net sales}}{\text{Average total assets}}$$

$$\text{Net profit margin} = \frac{\text{Net profit}}{\text{Net sales}}$$

The return on assets is an indicator used to measure how efficiently the assets of a business have been used to generate profit. If the two ratios stated above are multiplied together, the result is the return on assets calculation:

$$\text{Return on assets} = \frac{\text{Net sales}}{\text{Total assets}} \times \frac{\text{Net profit}}{\text{Net sales}} = \frac{\text{Net profit}}{\text{Total assets}}$$

As the sales figure for the period appears in both financial indicators, when they are multiplied together the sales figure is cancelled out. The return on assets calculation remains as net profit divided by total assets.

Using the data from Twitchstream Tees, the ratios are calculated as follows:

	2022	2023
Net profit margin	$25 000	$25 000
	$80 000	$100 000
	= 31.25%	= 25.0%
Asset turnover	$80 000	$100 000
	$125 000	$135 000
	64%	74%
Return on assets	$25 000	$25 000
	$125 000	$135 000
	= 20.0%	= 18.52%

The net profit margin decreased from 2022 to 2023, while asset turnover increased over the same period.

The return on assets showed a slight decrease over the year. This decrease was the result of the changes in the other two ratios.

	Net profit margin		Asset turnover	
2022: Return on assets =	31.25%	×	64%	= 20.0%
2023: Return on assets =	25.00%	×	74%	= 18.5%

Because the return on assets is actually affected by two other ratios, management can dissect it to determine the full picture of events.

When the return on assets was calculated, it stated that a decrease occurred from 2022 to 2023. However, it's now known that asset turnover actually increased during this period. The problem for Twitchstream is that expenses consumed so much of the sales dollar during 2023 that they eliminated the benefits achieved through the higher asset turnover.

In summary, the return on assets actually reports on two aspects of a business's performance:

- First, it examines how efficiently the business has used its assets to generate revenue (i.e. asset turnover).
- Second, the return is affected by the percentage of the sales revenue consumed by the business's expenses, which determines the business's net profit margin.

The return on assets provides clear evidence that operating efficiency ratios have a direct impact on a business's profitability.

Keep in mind that efficiency ratios might also have an impact on other areas of a business. The liquidity of a business is one such area, which will be examined in the next chapter.

22.4 CHECK YOUR UNDERSTANDING

WB PAGE 415

1. Describe what asset turnover tells a business owner.
2. What is liquidity? Explain why liquidity analysis is important to management.
3. Outline the link between the cash cycle and the liquidity of a business.
4. Describe the role an age analysis of accounts receivable can play in analysis and interpretation.

22 CHAPTER REVIEW

KEY CONTENT

- **[22.1]** Two common, simple forms of accounting analysis are vertical analysis (presenting the income statement in both dollar terms and percentages) and horizontal analysis (comparing reports on several consecutive trading periods).
- **[22.2]** Financial indicators are used by management to measure financial performance over different periods. When financial indicators are calculated, they're usually compared to benchmarks of measurement or performance.
- **[22.2]** An analytical ratio is an indicator that is the mathematical comparison of two related items, such as current assets and current liabilities. Many different types of ratios can be calculated and analysed.
- **[22.3]** Profitability indicators examine how profitable the business has been during the period. Profitability may be measured by comparing profit with an investment, by looking at what happened to the sales dollar during a period, or by other means.
- **[22.4]** Operating efficiency indicators look at how efficiently management uses the assets available to them. Investment in inventory, accounts receivable, current assets or non current assets can all be examined in terms of how efficiently they have been used and managed.

CHAPTER 22 EXERCISES

1 Analysis by common size statements

WB PAGE 416

The owner of Bashira's Boutique supplies the following financial information.

	2022	2023
	$	$
Sales	136 000	149 600
Cost of goods sold	61 200	71 800
Wages	20 400	22 440
Office expenses	6 800	11 970

a Using a spreadsheet, prepare income statements for the two years in both dollar and percentage terms.

SPREADSHEET

b Write a brief comment explaining the change in the gross profit margin from 2022 to 2023.

c Prepare a pie chart for each of the two years, showing the breakdown of the sales dollars into expenses and net profit.

d Explain what has happened to the net profit margin of the business over the two years. Use data from your other answers to help explain the changes in the profitability of the business.

2 Gross profit margin

WB PAGE 417

The following information relates to the business of Lanting Computers, a small business owned and managed by Jackson Lanting.

	2022	2023
	$	$
Sales	120 000	150 000
Cost of goods sold	66 000	89 100

a Calculate the gross profit margin for 2022 and 2023.

b Determine the percentage increase in both sales and cost of goods sold from 2022 to 2023.

c Referring to your answers in parts **a** and **b**, explain to Lanting what has happened in his business over the last two years.

3 Analysis by common size statements

WB PAGE 418

Luke Deering is the proprietor of Superior Sports and provides the following information relating to his business.

	2022	2023
	$	$
Sales	192 000	215 040
Cost of goods sold	92 160	97 690
Wages	24 000	26 400
Advertising	3 840	4 200

SPREADSHEET

a Using a spreadsheet, prepare income statements for the two years in both dollar and percentage terms.

b Prepare a pie chart for each of the two periods to show the breakdown of the sales dollars.

c Write a report explaining the changes that have occurred in the business of Superior Sports from 2022 to 2023.

4 Evaluation of profitability

WB PAGE 419

The information provided below relates to Commercial Telephones, a business owned and managed by Sue Dodd.

	2021	2022	2023
	$	$	$
Sales	160 000	165 000	185 000
Net profit	25 600	26 400	32 000
Total assets	90 000	100 000	100 000
Owner's equity	60 000	65 000	65 000

a Calculate the following financial indicators for the years 2022 and 2023:

- **i** net profit margin
- **ii** return on assets
- **iii** return on owner's investment.

b Write a brief comment to Dodd on the performance of the business as revealed by each of the indicators calculated in part **a**.

c Describe three different benchmarks that may be used to evaluate the owner's return on her investment.

d Compare the results of the return on assets and the return on owner's investment for 2022 and 2023. Explain how this is possible.

5 Evaluation of profitability

WB PAGE 420

Jacob Reid earns a profit of $46 200 in his small business after investing $99 000 capital. Robert Bartolo made an investment of $72 000 into his business and earns a profit of $35 400.

- **a** Calculate the return on owner's investment for each of the two owners.
- **b** Which owner has the higher profitability? Explain your answer.
- **c** If both businesses had assets of $120 000, calculate the return on assets for each business.
- **d** Which business has used its assets most effectively in terms of earning profit? Justify your answer.

6 Evaluation of profitability

WB PAGE 421

The following information relates to two similar businesses.

	High Street Hardware	Hardware Emporium
	$	$
Total assets 30/6/22	86 600	78 400
Total assets 30/6/23	83 400	85 600
Sales for the year	382 500	348 500
Net profit	45 900	48 790

- **a** Using the above information, calculate the following financial indicators for each of the businesses:
  - **i** the asset turnover
  - **ii** the return on assets
  - **iii** the net profit margin.
- **b** Which business has used its assets most effectively to earn its sales revenue? Explain your answer fully.
- **c** Compare the results of the three ratios for the two businesses. Comment on the differences between the two sets of results.

7 Evaluation of profitability

WB PAGE 423

Consider the results of the two businesses presented below.

	Victory Vespa	Fitzroy Scooters
	$	$
Total assets 31/12/22	120 000	96 000
Total assets 31/12/23	124 000	108 000
Sales for the year	457 500	326 400
Net profit	51 240	39 160

- **a** Calculate return on assets, net profit margin and asset turnover for each of the two businesses.
- **b** Write a brief comment on the results revealed by each of the three ratios.
- **c** 'If a business increases its asset turnover, its net profit margin must also increase.' Do you agree with this statement? Explain your answer fully.

CASE STUDY

WB PAGE 424

Chockstone & Carabiner is a business that sells rock climbing, abseiling and mountaineering equipment, along with related accessories and clothing.

The following accounting reports have been provided for the most recent reporting periods.

CHOCKSTONE & CARABINER: INCOME STATEMENTS FOR THE YEARS ENDED 31 DECEMBER

		2022	2023
		$	$
Revenue			
	Credit sales	190 000	188 000
	Cash sales	66 000	70 000
		256 000	258 000
Less	Sales returns	6 000	2 000
	Net sales	250 000	256 000
Less	Cost of sales	122 000	132 000
	Gross profit	128 000	124 000
Less	Expenses		
	Shop wages	22 000	26 000
	Advertising	4 000	6 000
	Depreciation of shop fittings	2 000	2 000
	Depreciation of vehicle	6 000	6 000
	Rent	48 000	48 000
	Vehicle expenses	2 000	3 000
	Interest	5 000	6 000
	Total expenses	89 000	97 000
	Net profit	39 000	27 000

CHOCKSTONE & CARABINER: BALANCE SHEETS AS AT 31 DECEMBER

	2021	2022	2023
	$	$	$
Cash at bank	1 500	4 400	1 500
Accounts receivable	9 600	10 600	12 000
Inventory	35 000	34 000	40 000

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Computer	–	–	3 000
Shop fittings*	14 000	12 000	10 000
Delivery vehicle*	32 000	26 000	20 000
Premises	210 000	210 000	210 000
	302 100	297 000	296 500
Accounts payable	14 000	15 000	16 500
Loan (interest-only loan: due 2024)	60 000	60 000	60 000
	74 000	75 000	76 500
Capital – owner	228 100	228 100	222 000
Net profit	42 000	39 000	27 000
	270 100	267 100	249 000
Less: Drawings	42 000	45 100	29 000
	228 100	222 000	220 000
	302 100	297 000	296 500

* Non current assets have been reported at carrying value (i.e. historical cost less accumulated depreciation)

CHOCKSTONE & CARABINER: SUMMARIES OF CASH FLOWS FOR THE YEAR ENDED 31 DECEMBER

	2022	2023
	$	$
Net cash provided (used) by operating activities	48 000	29 100
Net cash provided (used) by investing activities	0	(3 000)
Net cash provided (used) in financing activities	(45 100)	(29 000)
Net increase/decrease in cash held	2 900	(2 900)
Cash held at beginning of year	1 500	4 400
Cash held at end of year	4 400	1 500

The management of Chockstone & Carabiner stated the following business objectives for the 2022 and 2023 reporting periods:

1. to increase sales by 10% above the previous year's result
2. to increase net profit by 5% above the previous year's result
3. to maintain a gross profit margin of at least 45%
4. to maintain a net profit margin of at least 15%
5. to achieve a return on owner's investment of at least 20%
6. to achieve an inventory turnover of 90 days or less
7. to maintain an average settlement period of less than 30 days for accounts receivable
8. to maintain an average settlement period of 30 45 days with the accounts payable
9. to keep the working capital ratio above 175%
10. to maintain a cash flow cover of at least four times
11. to keep the debt ratio under 25%.

---

a For each of the above objectives, state whether or not they were achieved in both 2022 and 2023.

b Where appropriate, suggest possible reasons if objectives weren't achieved. Calculate the appropriate financial indicator in each case and clearly identify the trend in the indicators.

CHAPTER CHECKLIST

Now that you have finished Chapter 22, double check your progress.

Are you ready for your Unit 4 exam?

I have ...

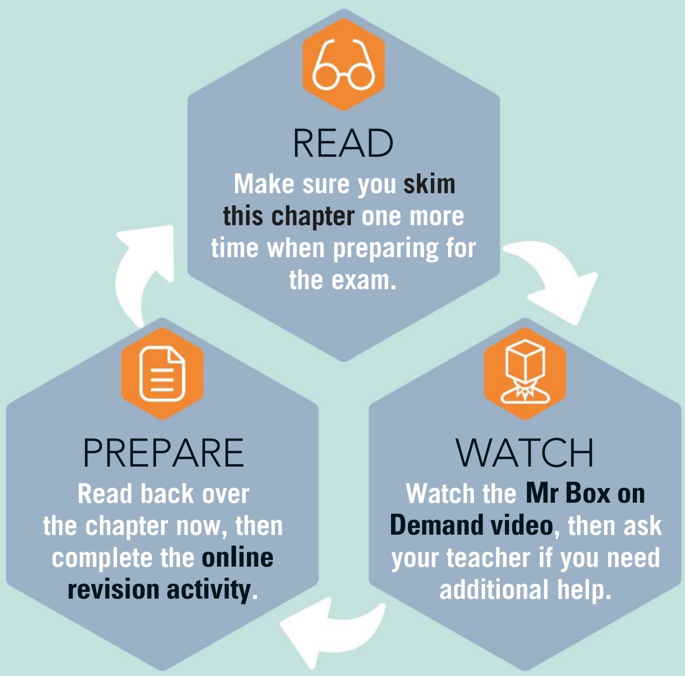
- completed all 'Check Your Understanding' questions
- completed all exercises
- handed in my workbook for marking.

I understand ...

- indicators and other relevant information to measure business performance: financial and non financial
- the analysis of historical and budgeted accounting reports, including a consideration of the limitations of analysis, to develop strategies to improve business performance
- graphical representations related to preparing and interpreting budgeted accounting reports
- strategies to improve business performance.

I can ...

- analyse and interpret classified accounting reports, graphical representations and other information to evaluate the performance of a business
- use ICT, including spreadsheets, to model and analyse the financial effects of alternative strategies to improve business performance
- analyse and interpret classified historical, budgeted and variance reports, graphical representations and other information to evaluate the performance of a business
- discuss strategies to improve the performance of a business.



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23 ADDITIONAL PERFORMANCE INDICATORS

In the previous chapter you looked at how to analyse and interpret accounting reports and information, in particular financial indicators for two key areas of a business profitability and operating efficiency. But there are more areas that inform decision making than just those two.

In this final chapter you will look at two more financial indicators, liquidity and gearing, as well as non financial tools and factors for analysing a business's performance.

LEARNING OBJECTIVES

By the end of this chapter, you will be able to:

- prepare a variety of indicators to examine the area of liquidity [23.1 & 23.2]
- prepare a variety of indicators to examine the area of gearing [23.3]
- evaluate a business using both financial and non financial indicators [23.4 & 23.5]
- describe some non financial methods of analysis [23.5]
- outline the limitations of ratio analysis [23.5].

UNIT 4 – PROGRESS 14 — 15 — 16 — 17 — 18 — 19 — 20 — 21 — 22 — 23

- 23.1 Liquidity analysis
- 23.2 Liquidity and cash flows
- 23.3 Gearing and financial stability
- 23.4 Other evaluation tools
- 23.5 Non-financial factors
- Chapter review and exercises

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23.1 LIQUIDITY ANALYSIS

liquidity
the ability of a business to meet its short-term debts as they fall due

Liquidity is the ability of a business to meet its short term debts as they fall due. Liquidity indicators measure a business's ability to meet debts in the short term, which usually refers to the next 12 months in the life of a business.

For a trading business to survive, it must have sufficient 'liquid' funds available to meet certain needs. These needs include meeting payments of expenses, accounts payable, GST debts, loan repayments and proprietor's drawings.

Efficiency ratios, such as inventory turnover and accounts receivable turnover, are very important to liquidity. If a business takes a long time to turn its inventory into sales, it puts more pressure on its liquid funds. So does a slower accounts receivable turnover, as the business has to wait longer to collect its cash.

Unfortunately, many expenses incurred in running a business won't wait employees and rent have to be paid. It's important that management has information relating to the business's ability to meet these debts as required. Liquidity indicators can provide some of this information.

'Liquid' funds are those available to pay short-term expenses and debts.

WORKING CAPITAL RATIO

$$\text{Working capital} = \text{Current assets} - \text{Current liabilities}$$

$$\text{Working capital ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

working capital
the liquidity of a business, expressed in dollars

Working capital is a dollar measure of the amount of liquid funds a business has. It's based on the theory that if current assets are greater than current liabilities, a business is likely to meet its debts in the next 12 months. If current liabilities exceed current assets, the business may be facing a liquidity problem.

Remember the definition of the two classifications from the balance sheet:

- Current assets are expected to be turned into cash within the next 12 months.
- Current liabilities are obligations due for repayment within the same time period.

It's logical to compare one group with the other to evaluate a business's liquidity.

The **working capital ratio** examines the relationship between current assets and current liabilities in a different fashion. Rather than simply stating working capital as a dollar value, the assets are divided by the liabilities and the result is expressed in a ratio or as a percentage.

working capital ratio measure of the liquidity of a business, expressed as a ratio or percentage

Consider the example of Echuca Essential, a business selling essential oils and natural fragrances.

		2022	2023
Current assets (CA)		$30 000	$28 000
Current liabilities (CL)		$12 000	$14 000
Working capital (CA – CL)		$18 000	$14 000
Working capital ratio	CA	$30 000	$28 000
	CL	$12 000	$14 000
	=	2.5:1	2.0:1
	or	250%	200%

Echuca Essential's working capital ratio decreased from 2022 to 2023. This ratio may be expressed as a percentage (as shown above), or stated in more comparative terms:

- At the end of 2022, the business had $2.50 of current assets for every $1.00 of current liabilities.
- On balance day of 2023, the business had $2.00 of current assets for every $1.00 of current liabilities.

These results indicate that Echuca Essential is unlikely to have any problems meeting its short term debts, even though liquidity fell in the second year.

There's no ideal percentage for a working capital ratio. If the ratio is less than 1:1, the business may have a liquidity problem in the forthcoming year. Some owners prefer a ratio closer to 2:1, as it provides a safety margin for any unforeseen problems.

The trend in the ratio is also important. Changes in working capital should be examined carefully, and ideally the ratio should be determined more than once a year. A monthly or quarterly calculation gives management more up to date information in relation to liquidity.

MANAGING WORKING CAPITAL

No matter how often working capital ratios are calculated, working capital requirements will vary from business to business, and a preconceived figure shouldn't be set as a hard and fast rule. Some businesses trade successfully with low working capital, while others require a higher percentage. The difference is in the cash cycle of the businesses. Consider the following two businesses:

- **Echuca Essential:** all purchases are on credit, all sales are made for cash, inventory turnover is very fast.
- **Shepparton Antiques:** all purchases are for cash, all sales are on credit, inventory turnover is very slow.

Echuca Essential could trade successfully with much lower working capital than Shepparton Antiques. This is possible because Echuca Essential buys its inventory on credit (perhaps on terms of 30 days) and sells for cash. Depending on how fast its inventory turnover rate actually is, the business may be able to sell all its inventory before it has to pay its accounts payable. If so, it doesn't require a large amount of funds tied up in working capital.

On the other hand, Shepparton Antiques requires more working capital to cover the time it takes to sell its goods and collect from accounts receivable. If a business sells on credit, it must ensure that it has sufficient funds to meet operating costs during its extended operating cycle.

Another consideration is whether the working capital ratio is too high. A ratio of 4:1 or 5:1 may indicate that the percentage of current assets to current liabilities is much greater than the business's requirements. This might not seem like a problem at first, but it can indicate other issues, such as:

- The business has over invested in current assets, and has too much money tied up in cash at bank, inventory or accounts receivable. A business should only keep enough cash in a normal trading account to meet its needs. If excess cash is available, it should be put to use the business could pay off debts, buy non current assets or invest the excess cash.
- The business has too much inventory. Excess inventory can cost a business money in storage costs, insurance and a greater chance of damage, shoplifting and obsolescence.
- The business has an excessive balance in accounts receivable. Bad debts, debt collection fees and legal costs all add up to be a costly exercise when credit accounts aren't collected over an extended period.

The working capital ratio must reflect a business's needs. A suitable level of working capital for one business may not be appropriate for another. Trends in the ratio should be monitored, and significant changes should always be investigated.

As accounts receivable and inventory are major determinants of the working capital ratio, their individual ratios should be closely examined whenever changes in working capital are identified.

QUICK ASSET RATIO

$$\text{Quick asset ratio} = \frac{\text{Current assets} - (\text{Inventory} + \text{Prepaid expenses})}{\text{Current liabilities}}$$

quick asset ratio
a measure of immediate liquidity

While the working capital ratio looks at the short term liquidity of a business (the next 12 months), the **quick asset ratio** looks at the immediate liquidity of the business.

The quick asset ratio has significant differences from the working capital ratio:

- Prepaid expenses are removed from the total of current assets because prepayments can't usually be turned into cash if a business has an urgent need for liquid funds.
- Inventory is also removed from the total of current assets because a business can't completely liquidate its inventory in order to meet debts. Even if this could be achieved by reducing selling prices to ridiculous levels, the goods sold would have to be replaced if the business expects to continue trading.

When these items are removed from the totals of current assets, the quick asset ratio basically becomes a comparison of cash at bank and accounts receivable with the amount owing to current liabilities. It looks at the assets that can be turned into cash urgently (i.e. quick assets) and the debts that must be met in the very near future (i.e. urgent debts).

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In order to compare this with the working capital ratio, let's look at Echuca Essential again.

	2022	2023
	$	$
Current assets	30 000	28 000
Inventory	17 000	19 000
Prepaid expenses	1 000	1 000
Current liabilities	12 000	14 000

For 2022:

$$\text{Quick asset ratio} = \frac{\text{Current assets} - (\text{Prepaid expenses} + \text{Inventory})}{\text{Current liabilities}}$$

$$= \frac{\$30\,000 - (\$1000 + \$17\,000)}{\$12\,000}$$

$$= \frac{\$30\,000 - \$18\,000}{\$12\,000}$$

$$= \frac{\$12\,000}{\$12\,000}$$

$$= 1{:}1 \text{ or } 100\%$$

For 2023:

$$\text{Quick asset ratio} = \frac{\$28\,000 - (\$1000 + \$19\,000)}{\$14\,000}$$

$$= \frac{\$\,8\,000}{\$14\,000}$$

$$= 0.57{:}1 \text{ or } 57\%$$

These quick asset ratios show an unfavourable trend over the period 2022 to 2023:

- On balance day of 2022, the business had $1.00 of quick assets to meet every $1.00 of urgent liabilities.
- In 2023, this relationship has deteriorated to the extent that the business now only has $0.57 of quick assets for every $1.00 of urgent debts.

This ratio is evidence that the liquidity of the business has decreased. Although its very fast cash cycle may allow Echuca Essential to operate with a low quick asset ratio, such a change in the ratio over a 12 month period is a warning to management to keep a close watch on future events. If the decline continued in the next period, the business may simply run out of cash.

23.1 CHECK YOUR UNDERSTANDING

WB PAGE 428

1 Distinguish between the working capital ratio and the quick asset ratio in terms of what they evaluate.

2 'If management determines liquidity ratios on a constant basis, a cash budget is no longer necessary.' Do you agree with this statement? Explain your answer fully.

3 'If current assets increase, the working capital ratio must also increase.' Do you agree? Explain fully.

23.2 LIQUIDITY AND CASH FLOWS

Both the working capital and quick asset indicators provide management with useful information on balance day. However, the data used to determine these two liquidity ratios comes from the balance sheet. Since the cash flow statement should be prepared at the end of every period, this report should also be considered when evaluating liquidity.

There's a logical connection between the cash flow statement and liquidity. The focus of the entire report is inflows and outflows of cash, providing a summary of what has happened to the cash resources of the business over time.

Consider the cash flow statement below, for a small business that sells automotive parts.

G.P. AUTO PARTS: CASH FLOW STATEMENT FOR THE YEAR ENDED 30 JUNE 2023

	$	$
Cash flows from operating activities		
Cash sales	160 000	
GST received	16 000	176 000
Cash purchases of stock	(90 000)	
Wages	(49 000)	
GST paid	(9 000)	(148 000)
Net cash from operating activities		28 000
Cash flows from investing activities		
Purchase of shop fittings	(6 000)	
Net cash used in investing activities		(6 000)
Cash flows from financing activities		
Mortgage repayments	(8 000)	
Drawings	(21 000)	
Net cash used in financing activities		(29 000)
Net increase (decrease) in cash held		(7 000)
Cash held at beginning of year		2 000
Cash held at end of year		(5 000)

This report may be very valuable when evaluating liquidity. For example, it shows that the business started the period with $2000 in its bank account, but by the end of the period, this had decreased to an overdraft of $5000. This in itself shows a significant deterioration in the cash supplies of G.P. Auto Parts, and perhaps also in their liquidity.

However, this information should be read together with financial indicators, such as those for working capital and quick assets. The shortage of cash may not be an issue for management if there are large Accounts Receivable expected to be settled early in July 2023, or a capital injection is planned by the owner.

Neither financial indicators nor the cash flow statement (or any other accounting report) should be relied upon as the sole source of financial information. It's important to gather as much information as possible to get a full picture of a business's liquidity situation. This may include ratios, reports, vertical analyses, horizontal analyses and trend analyses. Once management has all the relevant data, it should be in a better position to interpret the results accurately.

CASH FLOW COVER

In recent years there's been more emphasis in the accounting profession on cash management and liquidity analysis. Profitable businesses have had to cease trading because of management's inability to control cash. If cash isn't managed and expenses aren't met on time, a business won't survive. Landlords become uncooperative when rent isn't paid on time. Telephone companies tend to cut off services if bills aren't paid. Employees won't work if they're not paid their wages!

Cash management is crucial to a business's continued operations, and additional indicators were created to look at this area of business. One such indicator is **cash flow cover**, which examines the relationship between the cash flows generated by the day to day business operations, compared to the current liabilities of the business.

cash flow cover how many times net cash flows can cover expected accounts payable in a reporting period

$$\text{Cash flow cover} = \frac{\text{Net cash flows from operating activities}}{\text{Average current liabilities}}$$

For example, if the average current liabilities of GP Auto Parts were $2800, the ratio would be:

$$\text{Cash flow cover} = \frac{\$28\,000}{\$2800} = 10 \text{ times per annum}$$

This ratio shows that GP Auto Parts generated net operating cash flows equal to 10 times what it owed in current liabilities on balance day.

(As usual, keep in mind that average figures are subject to distortion. Seasonal factors may mean that the average for accounts payable is either artificially high or artificially low.)

The concept behind this ratio is that a business should have sufficient coverage of its current obligations if it's to survive. If the trend in this ratio is falling (e.g. from 10 times to 8 times in the subsequent period), this may indicate a worsening liquidity position, and management may have to take corrective action. On the other hand, if the ratio increases from 10 times to 15 times, the business is unlikely to experience difficulty in meeting its short term debts.

For a business trading on 30 day terms, it's logical to use 12 times as an acceptable level of cash flow cover. In other words, a year's cash flows can be expected to cover the accounts payable owing at the end of a given month about 12 times. Otherwise, the business is not producing enough cash over the year to meet its most urgent liabilities.

However, the Accounts Payable figure on balance day may vary greatly, depending on when the report was prepared. Therefore, the more important point to keep in mind is the trend in the ratio over several reporting periods. Valuable benchmarks include:

- previous periods' result (i.e. the trend)
- management's expectations or budget objectives.

23.2 CHECK YOUR UNDERSTANDING

WB PAGE 429

1 Explain how a statement of cash flows can assist management when evaluating the liquidity position of a business.

2 'If cash flows from operating activities have increased over time, a business will have an improved liquidity.' Do you agree with this statement? Explain your answer fully.

3 'A business can have a negative result from operating activities and still survive.' Is this true? Discuss.

23.3 GEARING AND FINANCIAL STABILITY

While liquidity ratios examine the short term future of a business entity, financial stability looks at its long term structure. A business may be financed using internal funds (owner's equity) or external funds (liabilities). **Gearing** is the dependence of an entity on outside funds, compared with those contributed by the proprietor.

gearing
the dependence of a business on borrowed funds, compared to funds contributed by the business owner

A business is described as *highly geared* when a high percentage of its assets are financed by liabilities. A *lowly geared* business is one that is highly dependent on the proprietor's funds and has borrowed very little from external sources.

A highly geared business is a higher financial risk, because there is a greater pressure on the business' resources to meet repayments of debts. If the expected cash inflows don't occur, the owner is still faced with the repayment of liabilities. The ultimate result of this problem may be the collapse of the business. A lowly geared business doesn't have the same pressure, as multiple repayments aren't constantly draining its working capital.

Financial stability indicators are calculated to provide management with information relating to changes in the gearing of a business. There are a number of ratios that may be used to measure changes in gearing.

DEBT RATIO

debt ratio
measure of the dependence of a business on liabilities to fund its assets

The **debt ratio**, also known as the gearing ratio, determines the percentage of assets actually funded by borrowed funds.

$$\text{Debt ratio} = \frac{\text{Total liabilities}}{\text{Total assets}} \times 100$$

Consider the following example for Castlemaine Furnishings.

	2022 $	2023 $
Total assets	130 000	140 000
Liabilities	50 000	70 000
Owner's equity	80 000	70 000
Debt ratio	50 000	70 000
	130 000	140 000
	= 0.38:1	= 0.50:1
	or 38%	or 50%

These ratios indicate that the gearing of this business increased over the two year period. Its assets increased from $130 000 to $140 000, which is positive, but this increase in assets means that the owner has borrowed more funds from external sources, causing the debt ratio to jump from 38% in 2022 to 50% in 2023.

This means that half of Castlemaine Furnishings' assets are now financed by external funds. The financial risk of the entity may increase as a result, as it's under greater pressure from its repayments of debts. For example, if this expansion was funded by additional loans, more cash will have to be put aside for loan repayments each month. This leads to greater pressure on the liquid resources of the business.

In simple terms, the more a business owner borrows, the higher the debt ratio and the more financial pressure the business will face.

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GEARING AND RETURN ON INVESTMENT

The more a business borrows from outside sources, the more likely it is not to survive. The obvious question is: why would an owner take on a risk that could lead to total financial collapse?

Many small business owners simply don't have enough personal wealth to finance a business without borrowing money from others. A few others borrow money through personal choice, and use these borrowed funds to increase their own personal returns.

Consider the following information relating to two skateboard shops, Abbotsford Boards and Brunswick Skate. Both businesses are of equal size in terms of total assets; they are in the same industry, and are both owned by sole proprietors. The only difference is that Abbotsford Boards is a highly geared business, whereas Brunswick Skate is lowly geared.

Here are the financial details for the two businesses for the year ended 31 December 2023. Due to its heavy borrowing, Abbotsford Boards has a higher interest expense and has therefore earned a profit $10 000 lower than that of Brunswick Skate.

	Abbotsford Boards $	Brunswick Skate $
Total assets	100 000	100 000
Liabilities	80 000	10 000
Owner's equity	20 000	90 000
Net profit	15 000	25 000

To further emphasise the differences between the two businesses, their debt ratios have been calculated, along with two profitability ratios   the return on assets and the return on owner's investment.

		Abbotsford Boards $	Brunswick Skate $
Debt ratio	Liabilities	80 000	10 000
	Total assets	100 000	100 000
	=	80%	10%
Return on assets	Net profit	15 000	25 000
	Total assets	100 000	100 000
	=	15%	25%
Return on owner's investment	Net profit	15 000	25 000
	Average capital	20 000	90 000
	=	75%	28%

These figures highlight the positive outcomes that may be achieved through using borrowed funds to finance a business:

- Even though Abbotsford Boards achieved a return on assets of only 15%, the owner's personal return on their investment was 75%.
- Brunswick Skate had a higher return on assets (25%), but only generated a return of 28% on the owner's investment.

The owner of Abbotsford Boards has therefore used other people's money to generate a higher return on their personal funds invested in the business.

The two profitability ratios for Brunswick Skate are almost the same, due to the large percentage of funds contributed by the owner and the very small amount borrowed from outside sources.

Even though Abbotsford Boards has generated an incredibly high return on the owner's investment, there's much greater financial risk involved. If sales turnover declined in the next period, the management of Abbotsford Boards may struggle to meet its high level of repayments. The opportunity to earn high returns on owner's funds also carries with it greater financial risk and the greater likelihood of financial collapse.

The structure of Brunswick Skate is an example of a more conservative approach to financing. The return on owner's investment may be lower in the current year, but this business has a greater chance of survival in difficult times.

Differences in financial structure are often affected by the personal choices of business owners. Some proprietors are risk takers who are prepared to borrow large sums of money to try to boost their own personal returns. Others are conservative owners who only borrow through necessity and prefer a high equity component.

The ideal situation is a balanced approach between the two extremes. Borrowed funds can be used to increase an owner's personal returns, but liabilities shouldn't increase to such an extent that the repayment of such debts puts the business at risk.

There's no set percentage of gearing that can be defined as totally secure. However, as gearing increases, so too does financial risk, with the ultimate risk for an owner being the loss of everything, including personal assets. This possible sacrifice must be weighed up against the possible gains that may be achieved through the use of borrowed funds.

23.3 CHECK YOUR UNDERSTANDING

WB PAGE 430

1. What is the debt ratio? What is it used to measure?
2. State two reasons why business owners may borrow money to help finance the purchase of business assets.
3. Explain the link between gearing and financial risk.
4. Explain how gearing may be used to increase the return on owner's investment.

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23.4 OTHER EVALUATION TOOLS

Accountants, business owners and managers use financial indicators as a starting point in their evaluation of performance. However, these indicators should never be seen as the only relevant tools for evaluating business performance.

Chapter 20 outlined how budget expectations can be used as benchmarks to measure performance, but there are many other tools that may be used at times, which can be calculated as ratios or numerical results.

CUSTOMER SATISFACTION

Customer satisfaction surveys are an example of non financial analysis that should be used in conjunction with financial indicators. Many small businesses have customer feedback forms, and many more gather feedback via their business website, social media pages or online reviews.

A business's customers can be an excellent source of information. Many will seize the opportunity to tell management exactly what they think of them! Management should review feedback periodically so that they're in touch with customer concerns and needs. If several customers identify a recurring theme, particularly if they are important clients, management should take action.

It's also possible to calculate a ratio to reflect the degree of customer satisfaction. If a business has accepted returns of goods during a period, it's common practice to report this in the income statement:

Revenue	$	$
Sales	50 000	
Less: Sales returns	2 500	47 500

In this business, net sales reported for the period totalled $47 500. Management may be interested in the fact that the business actually sold $50 000 worth of goods, but $2500 of goods were subsequently returned.

A percentage is then calculated, which shows that customers returned 5% of total sales during this period:

$$\text{Sales returns ratio} = \frac{\text{Sales returns}}{\text{Total sales}} = \frac{\$2500}{\$50\ 000} = 0.05 \text{ or } 5\%$$

This ratio can be used as a reflection of customer satisfaction (or dissatisfaction). If the percentage of goods being returned increases, it would indicate customers' greater dissatisfaction with the inventory being sold. This may lead management to change some products, change some brands, or purchase inventory from different suppliers.

If a problem is identified by an increase in the percentage of goods being returned, management may decide that it's time for another customer survey. That is, a non financial tool (a survey) may be used after financial analysis reveals a particular problem.

QUALITY ASSURANCE

Just as customers can be surveyed about their satisfaction, business owners should consider how satisfied they are with their own suppliers.

In a similar fashion to the sales returns percentage, management should calculate the percentage of goods returned to suppliers. The number of returns made by customers could also be analysed in terms of which suppliers are involved.

Customer satisfaction data is useful for assessing a business's performance.

Often a retail outlet may accept a sales return, only to then return the product to the supplier because it's faulty or doesn't perform the task it was designed for. (Of course, if an item is shop soiled through the fault of the retailer, it shouldn't be returned to the original supplier.)

To ensure that customers are satisfied, the business owner must strive to find suppliers who will provide reliable products.

Once again, a simple ratio can be used to quantify this information.

$$\text{Purchases return ratio} = \frac{\text{Purchases returns}}{\text{Total purchases}}$$

PROFIT COMPARED TO HOURS WORKED

Many small business owners go into business because they don't want to work for someone else. Being your own boss is attractive to many people. However, it often has a major disadvantage: a business owner can't simply clock off at the end of the day. They have to complete many tasks, some of which may have to be done after hours, such as:

- finalising inventory orders
- completing stocktake
- updating accounting records
- calculating wages records
- GST record keeping
- emailing slow paying accounts receivable.

As a result of these demands, many business owners work 60 to 80 hours per week. Some may question whether it's worth it. That's a difficult question to answer, as making money isn't the only reason why people go into business although it's usually the main one! The feeling of being independent, the opportunity to achieve a lifetime dream, and the chance to make something out of nothing, are all common reasons for going into business.

An interesting consideration for some business owners is the following calculation.

$$\text{Profit per hour} = \frac{\text{Net profit for the period}}{\text{Hours worked by the owner}}$$

Imagine that a person resigned as an employee because their salary was only \$62 400 (working a 40 hour week), and there was an opportunity to earn \$78 000 working 75 hours per week as a small business owner. The two situations can be compared:

- salary earner: $\frac{\$62\ 400}{52}$ weeks = \$1200 per week
- business owner: $\frac{\$78\ 000}{52}$ weeks = \$1500 per week.

Salary earner:

$$\frac{\text{Income per week}}{\text{Hours worked per week}} = \frac{\$1200}{40 \text{ hours}} = \$30 \text{ per hour}$$

Business owner:

$$\frac{\text{Income per week}}{\text{Hours worked per week}} = \frac{\$1500}{75 \text{ hours}} = \$25 \text{ per hour}$$

Is this the right choice? There's no simple answer. Many business owners are happy to work extra hours because of the potential benefits. It's a matter of personal choice, and of whether an individual is self motivated, organised and prepared to work hard to establish a successful business venture.

The Australian economy needs people to take on the role of small business owners. It also needs individuals to fill the wage and salary positions in those and larger businesses. The decision to go into business will often be a personal one that requires particular personality traits.

Accounting can play a small role in providing useful tools to assess the performance of business owners. Some of these tools may help individuals decide whether or not it's worthwhile to remain a business owner.

23.4 CHECK YOUR UNDERSTANDING

WB PAGE 430

1 What use can management make of customer surveys when evaluating business performance?

2 Name one indicator that may be used to measure customer satisfaction. Explain how this indicator can be used to reflect the satisfaction or otherwise of a business's customers.

3 A business owner should try to provide customers with quality merchandise. Describe two methods of measuring the performance of a business in relation to the quality of goods being purchased from suppliers.

23.5 NON-FINANCIAL FACTORS

There are a range of financial indicators that can be used to evaluate a business's performance. Although these indicators are important, there are also non financial factors that can assist a business owner when evaluating performance.

As a general rule, if an evaluation tool involves a dollar sign, it would be classified as a financial indicator. A tool that doesn't involve specific dollar figures is a non financial factor. For example:

- calculating sales returns as a percentage of the total sales made is a financial indicator
- the number of times goods had to be returned to suppliers is a non financial factor.

This section looks at a few different non financial factors, but there's no limit to the ways a business owner can evaluate the performance of their business. What's important is that meaningful data is collected, whether it's financial or non financial. Once the data has been gathered, it needs to be analysed and interpreted so that management can make sound decisions to ensure the future success of the business.

QUALITY OF MANAGEMENT

A small business owner needs a range of skills to be successful. Many small businesses fail because of a weakness in management skills.

A successful business owner should have:

- *good communication skills*: it's crucial that an owner is able to deal with customers, staff, suppliers, bankers and government agencies
- *adequate management skills*: Chapter 14 covered the areas of managing and controlling inventory, accounts receivable and accounts payable
- *the ability to adapt to change*: business owners who refuse to change their management practices may keep making the same mistakes. A vision for the future is needed
- *the ability to develop or sell new products*: successful owners quite often are ahead of market changes because they anticipate what is likely to happen in the future
- *flexibility in responding to customers' needs*: all customers are different and should be treated on an individual basis
- *the ability to recognise one's own weaknesses*.

Some business owners adopt an 'I know it all' approach and can't critically evaluate the performance of management because they're management. However, not all owners are managers, and an owner may in fact conduct a review of their management team. This should help identify weaknesses and allow problems to be addressed.

Staff are usually willing to participate in an appraisal of management performance. In some businesses they may be asked to comment on a range of issues so that the quality of management can be reviewed and improved. As the decisions of management have a direct impact on the financial performance of a business, such comments shouldn't be ignored.

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ECONOMIC CLIMATE

The general state of the economy should be kept in mind when analysing the performance of a business. The economic climate may cover a whole range of possible events and factors, some of which impact on some businesses more than others. These include:

- consumer confidence
- market competition
- the actions of big business
- government decision making (e.g. the introduction of new taxes)
- wage demands by unions
- technological change
- market trends.

One of the biggest challenges to management is staying flexible in a changing economic climate. Business owners who become set in their ways, and refuse to change usually won't survive in the long term. When evaluating results, it can be difficult to explain why things changed. It's easy to calculate a ratio and to identify an increase or a decrease; finding out why it's happened is much harder.

Even if an owner knows why something happened, there is always the challenge of deciding what to do next. What decisions should the owner take for the future of the business? This is the basic challenge of being a business owner. A successful business owner has a working knowledge of the economic climate and of how changes in this climate affect their business.

OTHER NON-FINANCIAL FACTORS

While financial indicators are important, there are many non financial factors that can help a business owner to evaluate performance.

Meaningful non financial factors may include:

- the number of times goods are returned by customers in one period
- the number of times goods are returned to suppliers in one period
- customer satisfaction surveys
- employee satisfaction surveys
- the number of customers who visit the business in a given period
- the number of hits on a business website
- the number of sales made in a period (as distinct from the value of sales)
- the number of repeat customers in a period
- the postcodes of customers (showing the scope of the market)

There's no limit to the ways a business owner can evaluate their business's performance. What is important is that meaningful data is collected, whether financial or non financial. Once that data has been gathered it needs to be analysed and interpreted so that management can make sound decisions to ensure the future success of the business.

LIMITATIONS OF FINANCIAL ANALYSIS

Although indicators can provide management with a vast array of financial information, there are some inherent limitations of such analysis. Financial indicators can only be as accurate as the information on which they are based.

The use of indicators may be questionable, or of limited value, for several reasons:

- *Financial indicators are based on historical data*. Indicators may provide a historical summary of a business's operations, but there's no guarantee that the past results will correspond to the future results of the business.
- *Changes in the value of the dollar*. Much of the information used in accounting is based on dollar values. Sometimes items in reports may change, simply because of the change in what a dollar represents. For example, in times of inflation, sales revenue may increase over time, even though the same number of units has been sold. This type of change should be taken into account when comparing indicators, but is often difficult to identify.
- *Changes in accounting methods*. Sometimes management may decide to change accounting methods. The concept of relevance demands that the impact of any such changes be identified as part of the annual reporting process. However, once changes have been made, comparisons of financial indicators become more difficult.
- *Inter business differences*. Many indicators lend themselves to comparisons with the performance of other similar businesses. However, every business is unique in terms of financial structure, assets, revenues and expenses, so comparisons with other businesses must be made carefully. Industry averages are often suggested as a means of comparison, but the business in question may not resemble the typical or average business.
- *Frequency of reporting*. Some forms of analysis are most useful when frequent reporting allows regular comparisons of results to be made. Unfortunately, many small trading businesses complete a minimal amount of reporting each period.
- *Limited information*. Most proprietors have a limited accounting background (if any), and many don't use a comprehensive reporting system. Therefore, limited information leads to limited analysis.

23.5 CHECK YOUR UNDERSTANDING

WB PAGE 431

1. External factors may sometimes affect the performance of a business. Give three examples of such factors, and explain how they may affect business performance.
2. Give three reasons why financial analysis may have limited value for some businesses.
3. A small business owner has asked you to recommend three non-financial methods of evaluating the performance of their business. State the three methods you would recommend, and justify your choice.

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23 CHAPTER REVIEW

KEY CONTENT

- **[23.1]** Liquidity is the ability of a business to meet its short term debts as they fall due. For a trading business to survive, it must have sufficient working capital available to meet short term and immediate financial needs.
- **[23.2]** Cash management is crucial to a business's continued operations. A key indicator for cash management is cash flow cover, or how many times net cash flows can cover expected accounts payable in a reporting period.
- **[23.3]** Gearing is the dependence of a business on outside funds, compared with those contributed by the proprietor. A highly geared business is dependent on loans and financing from external sources, while a lowly geared business is highly dependent on the proprietor's funds and has borrowed very little from external sources.
- **[23.4]** Many financial indicators can be calculated as ratios or numerical results, based on financial activity. These include sales returns ratios measuring customer satisfaction, purchase returns ratios measuring quality assurance from suppliers, and comparisons of profit to hours worked for the business owner.
- **[23.5]** Financial indicators are only as accurate as the information on which they're based, and cannot measure every aspect of a business's performance. Non financial factors, such as the current economic climate or the quality of management, also need to be considered.

CHAPTER 23 EXERCISES

1 Evaluation of liquidity

WB PAGE 432

Consider the following balance sheet information, which relates to two different businesses as at 30 June 2023.

	Collingwood Comic Store	Greensborough Graphic Novels
	$	$
Current assets	41 500	47 700
Current liabilities	35 800	42 600

a Calculate the working capital for both businesses as at 30 June 2023.

b Determine the working capital ratio for both businesses.

c Which business has the better liquidity? Compare the liquidity of the two businesses and comment on the differences between them.

2 Evaluation of liquidity

WB PAGE 433

The following information is provided by the proprietor of Martello's Menswear.

BALANCE SHEET DATA AS AT:

	31/12/22	31/12/23
	$	$
Cash at bank	3 400	Nil
Accounts receivable	5 200	4 800
Inventory	34 500	32 600
Bank overdraft	Nil	1 200
Accounts payable	5 800	6 000
GST clearing	1 000	1 500
Accrued expenses	500	1 000

a Calculate the working capital ratio for Martello's Menswear for 2022 and 2023.

b Comment on the business's liquidity with reference to the ratios determined in part **a**.

c What other information would you recommend be made available to enable further comment on the liquidity of the business?

3 Evaluation of liquidity

WB PAGE 434

Consider the following information, which relates to two different businesses as at 30 June 2023.

	The Tool Shed	Huntingdale Tools
	$	$
Cash at bank	4 500	2 900
Accounts receivable	8 300	11 800
Inventory	32 400	38 200
Accounts payable	10 400	13 800
GST clearing	1 200	1 100

a For each of the two businesses, calculate a:

i working capital ratio

ii quick asset ratio.

b Comment on the differences in the liquidity structure of the two businesses, including references to the ratios calculated in part **a**.

4 Evaluation of liquidity

WB PAGE 434

The owner of Waverley Street Fashions reports that cash provided by operating activities in the year ended 30 June 2023 was $82 400. Current liabilities as at that date totalled $10 300. For the previous year, cash flows from operations were $71 900, with current liabilities of $11 300.

a Calculate the cash flow cover for each of the two years.

b Has the liquidity of the business improved or deteriorated over the last two years? Explain fully.

c What other information would assist you in commenting on this business's liquidity?

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5 Evaluation of liquidity

WB PAGE 435

The following items were extracted from the balance sheets of Nicoletti's Costuming Supplies.

	31/12/22	31/12/23
	$	$
Cash at bank	3900	4400
Accounts receivable	11200	15500
Inventory	43900	42400
Prepaid expenses	1500	2000
Bank overdraft	2800	Nil
Accounts payable	15000	16800
GST clearing	1400	1700
Accrued expenses	1500	1000

a Calculate a working capital ratio for both 2022 and 2023.

b Comment on the change in the working capital ratio over the two years.

c Calculate the quick asset ratio for 2022 and 2023, and comment on the change in the ratio.

d Working capital and quick asset ratios both look at liquidity. Explain the difference between these two forms of ratio analysis.

e Outline the role cash budgeting plays in evaluating a firm's liquidity.

6 Evaluation of reports

WB PAGE 436

The management of Emerald Jewellers has completed final accounting reports for the year ended 30 September 2023. The following information has been extracted from these reports.

From the cash flow statement:	
Net cash provided by operating activities	$32000
Net decrease in bank for the year	$4500
From the income statement:	
Gross profit	$43000
Net profit	$5000
From the balance sheet:	
Cash at bank balance	$3200
Current liabilities	$8400
Drawings for the year (all cash)	$16000

a State two possible reasons why cash at bank decreased over the period despite $32 000 being provided by operating activities.

b Explain why this business has reported such a small net profit when it has such a healthy gross profit.

c Give two reasons why net cash flow from operations was $32 000, but net profit was only $5000.

d Calculate the net cash flow cover as at 30 September 2023.

e The cash flow cover as at 30 September 2022 was calculated as 6.5 times. Make a brief comment on the current situation, taking into account last year's result.

7 Evaluation of gering

WB PAGE 437

Western Trading has total assets of $220 000 and owner's equity of $140 000. Northern Trading has owner's equity of $82 000 and total assets of $120 000.

- a Calculate the debt ratio for each business.
- b Which of the two businesses has the higher gearing? Explain your answer fully.
- c Explain the link between gearing and financial risk.

8 Evaluation of gearing and returns

WB PAGE 438

The following information was extracted from the books of two similar businesses.

	Mount Hotham Gifts	Bairnsdale Gifts
	$	$
Liabilities	32 600	46 800
Owner's equity	64 400	56 200
Net profit	25 000	25 000

- a Calculate the following financial indicators for each of the two businesses:
  - i debt ratio
  - ii return on assets
  - iii return on owner's investment.
- b Comment on the different financial structures of the two businesses.
- c Compare the profitability ratios for the two businesses and explain the differences between them.
- d State one advantage and one disadvantage of being the owner of a highly geared business.

9 Evaluation of gearing and returns

WB PAGE 439

The following information has been provided by the proprietors of two similar sized businesses.

	Superior Electricals	Supreme Electricals
	$	$
Liabilities	70 000	50 000
Owner's equity	80 000	100 000
Net profit	22 000	26 000
Net cash from operating activities	28 000	32 000

- a Calculate the following ratios for both businesses:
  - i debt ratio
  - ii return on assets
  - iii return on owner's investment.
- b Write a brief comment comparing the gearing of the two businesses.
- c Comment on the profitability of the two businesses.
- d Of the two businesses, which one has the greater capacity to borrow? Explain your answer fully and refer to any relevant ratios.

10 Evaluation of customer satisfaction

WB PAGE 440

The owner of Frankston Fashions has extracted the following information from the business's last three income statements. She's pleased about the trend in the results, as total sales and net sales have increased every year. However, she's concerned about the number of returns.

	2021	2022	2023
	$	$	$
Revenue			
Sales	86 900	92 400	98 600
Less: Sales returns	3 476	5 544	6 902
Net sales	83 424	86 856	91 698

a Calculate the sales returns ratio for each of the three reporting periods.

b Comment on your results from part **a**, in light of the owner's concerns.

11 Evaluation of quality of inventory

WB PAGE 440

Mitchell Hill is the owner of Peninsula Puzzles, a small business that sells a range of puzzles, games and entertainment products. He's always emphasised good quality inventory, but lately some of his customers seem dissatisfied. He provides you with the following details.

	2022	2023
	$	$
Total sales	86 000	84 200
Sales returns	1 720	2 100
Total purchases	42 300	42 600
Goods returned to suppliers	1 270	1 700

a Calculate the sales returns and purchases returns ratios for 2022 and 2023.

b Comment on the results in part **a**. Does this business owner have a problem?

c Suggest a possible solution to the situation that you've identified in this business.

12 Evaluation of performance – advanced

WB PAGE 441

The following information relates to Tollitt Trading, an import export business, and covers three consecutive reporting periods.

INCOME STATEMENTS FOR THE YEARS ENDED 31 DECEMBER:

	2021	2022	2023
	$	$	$
Credit sales	92 000	98 000	94 000
Less: Cost of sales	55 200	53 900	54 050
Gross profit	36 800	44 100	39 950
Less: Wages	22 000	25 000	26 000
Office expenses	7 500	7 000	7 500
Interest	2 500	2 000	1 500
Total expenses	32 000	34 000	35 000
Net profit	4 800	10 100	4 950
From the cash flow statement: net cash provided by operating activities: 2021 $28 000; 2022 $20 000; 2023 $16 000.			

BALANCE SHEETS AS AT 31 DECEMBER:

	2021	2022	2023
	$	$	$
Cash at bank	3 000	4 000	2 000
Accounts receivable	5 000	8 000	8 000
Inventory	14 000	14 000	16 000
Fittings (book value)	15 000	12 000	9 000
Premises	120 000	120 000	120 000
Total assets	157 000	158 000	155 000
Accounts payable	6 000	3 000	7 500
GST clearing	2 000	3 000	2 500
Loan from NAB	32 000	28 000	26 000
Capital – Tollitt	117 000	124 000	119 000
Total equities	157 000	158 000	155 000
* The owner of the business has stated that the 2020 figures were virtually identical to the 2021 results.			

a Calculate the following financial indicators for each of the three years:

- gross profit margin
- net profit margin
- expense ratios
- return on owner's investment
- return on assets
- asset turnover
- inventory turnover
- accounts receivable turnover
- accounts payable turnover
- cash flow cover
- working capital ratio
- quick asset ratio debt ratio.

b Write a report on the trends revealed in the ratios calculated above. Your report should be made up of separate sections that consider the profitability, efficiency, liquidity and stability of the business.

ACCOUNTING IN THE REAL WORLD

WB PAGE 442

In Chapter 2, you researched a number of publicly traded retailers, located their online balance sheets and commented on your findings (p.39). Now it's time to look at those companies again, and apply your full knowledge of accounting to the information they provide.

(If you saved the spreadsheets from that activity, you may find them useful for this activity as well.)

Visit the websites of at least three of these public companies in the retail sector:

- Myer Pty Ltd
- Harvey Norman Ltd
- JB Hi Fi
- Woolworths Ltd.

Locate the balance sheet for each firm on their site, then create a spreadsheet with the following elements:

a State the name of the company.

b State the dollar amounts for the following items for both the current reporting period and the previous period (all company reports must report for two periods):

- sales (may be listed as sales turnover or simply turnover)
- net profit (use operating profit before tax)
- net cash provided by operating activities
- current assets
- current liabilities
- owners' equity (look for shareholders' equity).

c Calculate the following financial indicators for both the current reporting period and the previous period:

- net profit margin (net profit/sales) or (operating profit/sales turnover)
- return on owner's equity (net profit/owner's equity) or (operating profit/shareholders' equity)
- working capital (current assets/current liabilities)
- cash flow cover (net cash flows from operations/current liabilities)
- debt ratio (total liabilities/total assets).

d Compare the results of the various companies selected and comment on your findings. Your comments should address the areas of profitability, liquidity and gearing.

Myer Pty Ltd	**mea.digital/myer**
Harvey Norman Ltd	**mea.digital/harveynorman**
JB Hi-Fi	**mea.digital/jbhifi**
Woolworths Ltd	**mea.digital/woolworths**

CHAPTER CHECKLIST

Now that you have finished Chapter 23, double check your progress.

Are you ready for your Unit 4 exam?

I have …

- completed all 'Check Your Understanding' questions
- completed all exercises
- completed the end of chapter activities
- handed in my workbook for marking.

I understand …

- indicators and other relevant information to measure business performance: financial and non financial
- the analysis of historical and budgeted accounting reports, including a consideration of the limitations of analysis, to develop strategies to improve business performance
- graphical representations related to preparing and interpreting budgeted accounting reports
- strategies to improve business performance.

I can …

- use ICT, including spreadsheets, to model and analyse the financial effects of alternative strategies to improve business performance
- analyse and interpret classified historical, budgeted and variance reports, graphical representations and other information to evaluate the performance of a business
- discuss strategies to improve the performance of a business.

READ

Make sure you **skim this chapter** one more time when preparing for the exam.

PREPARE

Read back over the chapter now, then complete the **online revision activity**.

WATCH

Watch the **Mr Box on Demand video**, then ask your teacher if you need additional help.

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