## 2007 Further Mathematics VCE Examination 2 Module 4 Business-related mathematics. Suggested solutions.

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Question 2 (continued) e.

Enter 
$$y_2 = 35000 + \frac{35000 \times 16 \times x}{100}$$

in the graphics calculator. (1 mark)

Keep the y<sub>1</sub> equation from (c) in the calculator.

Go to table.

When 
$$x = 14, y_1 > y_2 : .2018$$

(1 mark)

**Question 3** 

**a. i.** \$2000

(1 mark)

a. ii.

$$1 + \frac{9.8}{12 \times 100}$$
$$= 1.008$$

(1 mark)

b.

Use graphics calculator

Press Apps Finance Enter TVM Solver Enter

N =

I = 9.8

PV = 200000

PMT = -2000

FV = 0

P/Y = 12

C/Y = 12

Put cursor on N and press alpha solve.

N = 208.58 months = 17 years to the nearest year.

(1 mark)

c.

Amount repaid

 $= 208.5755592 \times 2000 = 417151.1184$ 

Interest = 417151.1184 - 200000

= \$217,151.12 to the nearest cent.

(1 mark)