

Exam 9 - Section 1

Question

Around 20 percent of the world's people use 86 percent of the world's resources, while the poorest 20 percent use only 1.3 percent. Few dispute the idea that the rate of consumption in rich countries is unhealthy for the whole world. It has been calculated that if the entire world consumed food, fuel and other natural resources at the same unsustainable rate as rich nations, three planet Earths would be needed to support everyone.

Which of the following statements is best supported by the information provided above?

Choose one answer.

- A. Most people agree that the current resource consumption rate in wealthy nations should be reduced
- B. 10 percent of the world's people in the richest countries use 43 percent of the world's resources
- C. The current consumption of global resources cannot be sustained by one Earth
- D. At least 20 percent of the world's people consume resources at an unsustainable rate

Question

One day Rod the butcher had his back turned, and a dog ran into his shop, took a piece of meat off the counter and ran out. Rod asked three other shopkeepers, who had seen the dog, to describe it. The shopkeepers did not want to help Rod, so each of them made a statement which contained one truth and one lie.

Shopkeeper 1: 'The dog had black fur and a long tail.'

Shopkeeper 2: 'The dog had a short tail and wore a collar.'

Shopkeeper 3: 'The dog had white fur and no collar.'

Based on the above statements, which of the following could be a correct description?

Choose one answer.

- A. The dog had white fur, a short tail and no collar
- B. The dog had white fur, a long tail and a collar
- C. The dog had black fur, a long tail and a collar
- D. The dog had black fur, a long tail and no collar

Question

One method of dating the emergence of species is to compare the genetic material of related species. Scientists theorise that the more genetically similar two species are to each other, the more recently they diverged from a common ancestor. After comparing genetic material from giant pandas, red pandas, raccoons, coatis, and all seven bear species, scientists concluded that bears and raccoons diverged 30 to 50 million years ago. They further concluded that red

pandas separated from the ancestor of today's raccoons and coatis a few million years later, about 10 million years before giant pandas diverged from the other bears.

Which of the following can be inferred?

Choose one answer.

- A. Giant pandas and red pandas are more closely related than scientists originally thought they were.
- B. It is possible to determine, within a margin of a few years, the timing of divergence of various species.
- C. Scientists have found that giant pandas are more similar genetically to bears than to raccoons.
- D. There is consensus among scientists that giant pandas and red pandas are equally related to raccoons.

Human blood is made up mainly of cells (solid) and plasma (liquid). The haematocrit is the percentage of blood volume contributed by cells. For normal males the average haematocrit is 45%, and for females is 3% less.

The blood in an adult represents about 8% of body weight. One litre of blood weighs about 1 kg.

Question

The haematocrit of a healthy, average 60 kg female will be closest to

Choose one answer.

- A. 25%
- B. 27%
- C. 42%
- D. 45%

Question

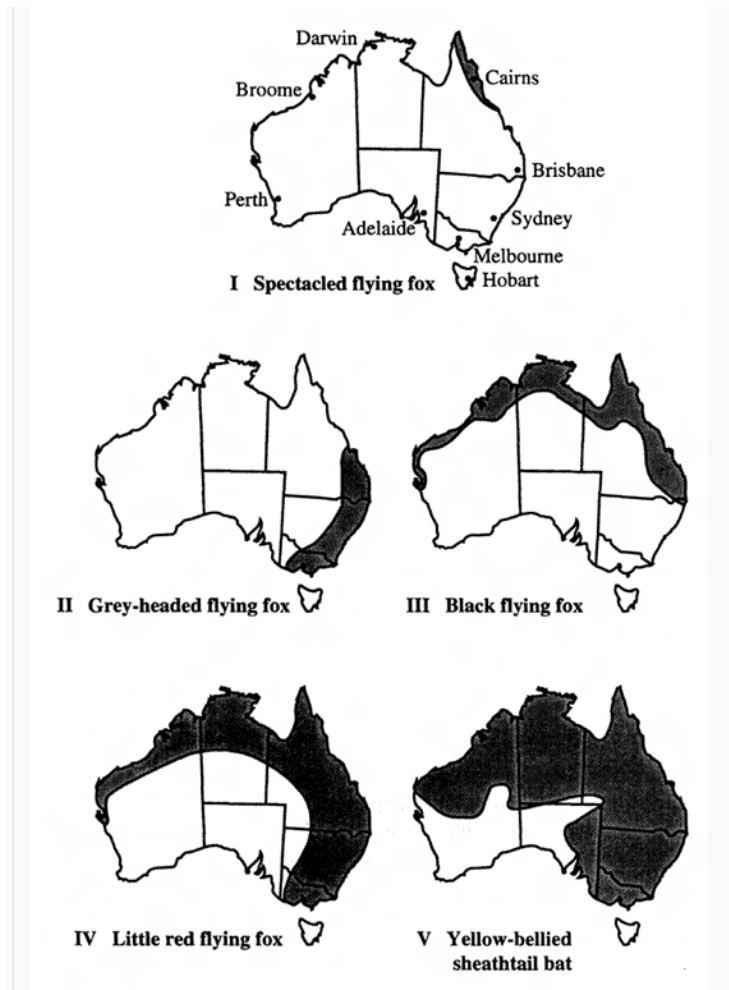
What volume of the blood of a healthy, average 50 kg adult female is plasma?

Choose one answer.

- A. 1.68L
- B. 2.32L
- C. 4.00L
- D. 5.68L

Question

In Australia, it has recently been recognised that a rare but serious disease of humans, known as lyssovirus, is caused by a virus carried by native bats. The distribution of the five species of bat known to carry the virus is shown on the maps below. The flying foxes referred to here are bats.



Scientists are studying how lyssovirus might have spread between bat species.

From the present-day distribution of species, which of the following seems least likely?

The virus spread directly from the

Choose one answer.

- A. little red flying fox to the spectacled flying fox.
- B. black flying fox to the grey-headed flying fox.
- C. grey-headed flying fox to the little red flying-fox.
- D. spectacled flying fox to the grey-headed flying fox.

Question

The teeth of some mammals show ‘growth rings’ that result from the constant depositing of layers of cementum as opaque bands in summer and translucent bands in winter. Cross sections of pigs’ teeth found in an excavated Stone Age rubbish pit revealed bands of remarkably constant width except that the band deposited last, which was translucent, was only about half the normal width.

Cementum: the layer of bony tissue covering the root of a tooth.

The statements above most strongly support the conclusion that the animals died
Choose one answer.

- A. In an unusually early winter
- B. At roughly the same age
- C. Roughly in mid-winter
- D. From starvation

When a baby was born to the Mayan people of Central America, it was given a symbol that was supposed to be related to the future of the baby (e.g. whether it would be lucky). Here is a list of the Mayan names of the symbols together with their meanings.

Table 1

Symbol name	Meaning	Symbol name	Meaning
<u>imix</u>	water	<u>chuen</u>	monkey
<u>ahau</u>	leader	<u>oc</u>	dog
<u>cauac</u>	storm	<u>muluk</u>	rain
<u>etz'nab</u>	knife	<u>lamat</u>	rabbit
<u>caban</u>	earth	<u>manik</u>	deer
<u>cib</u>	owl	<u>cimi</u>	death
<u>men</u>	eagle	<u>chicchan</u>	snake
<u>ix</u>	wild cat	<u>kan</u>	corn
<u>ben</u>	reed	<u>akbal</u>	night
<u>eb</u>	broom	<u>ik</u>	air

Question

What percentage of the 20 symbols have the names of animals?

Choose one answer.

- A. 30%
- B. 40%
- C. 60%
- D. 80%

Question

Of the symbols that have animal names, what percentage are birds?

Choose one answer.

- A. 10%
- B. 15%
- C. 20%
- D. 25%

A particular gastric illness is caused by the bacterium *Campylobacter jejuni*. The illness is not readily spread from one human to another. It is suspected that an outbreak of the illness in a town in southern Wales is due to magpies, which are carrying the bacteria, pecking through the aluminium caps of milk bottles delivered to houses in the town.

Question

Which one of the following statements provides the strongest evidence in support of the above theory?

Choose one answer.

- A. All people with the illness carried *C. jejuni*.
- B. Some magpies were found to carry *C. jejuni*.
- C. Only people who had drunk milk from bottles had the illness.
- D. Only people who had drunk milk from bottles with pierced caps had the illness.

Question

Which one of the following statements provides evidence which most strongly negates the theory?

Choose one answer.

- A. Some milk bottles whose caps were pierced contained no *C. jejuni*.
- B. Some magpies tested were not carrying *C. jejuni*.
- C. A few people who had drunk milk from bottles with pierced caps had not developed the illness.
- D. Many people who had not drunk milk from bottles with pierced caps developed the illness.

Question

Of the guests at a fancy dress party, four male-female couples dress up as animals.

- Lucy went to the party with Barry.
- Martin was a member of neither the couple that went as fish nor the one that went as sheep.
- Rachel didn't attend with Logan or Beau.
- Esmeralda went as an octopus.
- Tania was not a member of the couple that dressed up as giraffes.

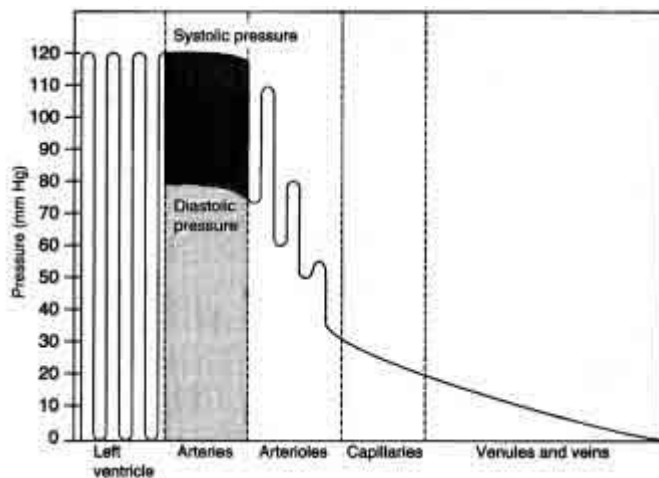
From the above information, which of the following options could not be a correct statement?

Choose one answer.

- A. Logan dressed up as an octopus with Esmeralda.
- B. Beau and Tania attended together as fish.
- C. Tania and Martin went as giraffes.
- D. Barry went with Lucy as a pair of sheep.

When the left ventricle of the heart contracts (systole) blood is pumped out of it and around the body. It then relaxes (diastole). Alternating systole and diastole are felt as a pulse in some

of the body's blood vessels. After flowing through arteries, and smaller arterioles, blood enters networks of fine capillaries. Eventually blood empties from large veins back into the heart to complete the circulation.



Question

A pulse can be felt in

Choose one answer.

- A. Arterioles but not arteries
- B. Arterioles but not venules
- C. Large arteries and capillaries
- D. Capillaries but not venules or veins

Question

The pressure during systole in an arteriole near where it branches off an artery is

Choose one answer.

- A. Higher than the pressure in the artery during systole
- B. Lower than the pressure in the artery during diastole
- C. Lower than the pressure in the left ventricle during systole
- D. Lower than the pressure during systole near where the arteriole joins capillaries

Question

There is an island on which the population is divided into two tribes, the Truves, who always told the truth, and the Falls, who always lied. The discoverer of this island left a record of one of his encounters there. He met two natives and asked them which tribe they belonged to. One answered by saying that they were both Falls.

From this answer, the explorer

Choose one answer.

- A. could tell that the speaker was a Fall and his companion was a Truve.
- B. could tell that the speaker was a Truve and his companion was a Fall.

- C. could tell that both natives were Truves.
- D. could not determine the tribes of the two natives.

Question

One sampling method used for estimating animal populations is known as mark-recapture sampling. Like any scientific research, the method is imperfect and involves making certain assumptions. A scientist measures the density of rats on an island using the mark-recapture technique. He captures 200 rats, marks them with tags and releases them. A week later he samples 500 rats and measures how many of these rats are marked. This ratio allows him to estimate the size of the rat population on the island, as shown in the equation below.

$$\frac{\text{Number marked and released}}{\text{Total population size}} = \frac{\text{Number marked in recaptured sample}}{\text{Total number in recaptured sample}}$$

Which of the following must occur in order for his estimate of population size to be accurate?

Choose one answer.

- A. The marked rats must not move far from the region where the scientist released them
- B. The marked rats must represent a small proportion of the total population
- C. The marked rats must mix freely with the rest of the population
- D. The death rate in the rat population must be low

The following is an excerpt from a journal article entitled: "Fish oil supplement helps ADHD-like symptoms"

An Australian trial has found that a supplement combining fish oil and evening primrose oil has led to significant improvements in attention and behaviour in children with Attention Deficit Hyperactivity Disorder (ADHD)-like symptoms. The study involved only 145 children, but found that taking the capsules led to significant improvements in attention, hyperactivity, impulsivity and vocabulary. Overall, 70-80% of children who were taking fish oil had some improvement, from very minor to major. After eight weeks 30-40% experienced significant improvements, which rose to 40-50% at three months.

Although most of the participants had not been diagnosed with ADHD, they were on average in the 90th percentile on core ADHD symptoms. None of the children were taking ADHD medication.

The trial split the children into various groups. Some children received an inactive placebo and some got supplements containing 400g fish oil and 100g evening primrose oil with a high ratio of omega-3 fatty acid. Omega 3 fatty acid was concentrated in the brain and deficiencies had been identified in some ADHD children.

Experts say the study supports previous research that showed fish oil could benefit behaviour. Some practitioners already recommend that children with milder behavioural problems take the supplement, but experts warn about using it in place of stimulant medication or in those

patients presenting with more severe ADHD symptoms, as it could delay assessment and treatment. However, it could be used to supplement medication.

Australian distributor Novasel provided capsules but did not fund the study.

Question

Which of the following is true of the children who participated in the trial?

Choose one answer.

- A. Some children had omega 3 fatty acid deficiencies
- B. All were given a supplement containing at least fish oil
- C. Some of the children had ADHD
- D. All children were at or above the 90th percentile in core ADHD symptoms

Question

According to the passage, which of the following is the most effective supplement?

Choose one answer.

- A. A supplement with both fish oil and evening primrose taken for three months
- B. A supplement with both fish oil and evening primrose taken for eight weeks
- C. A supplement with fish oil only
- D. A supplement with omega-3 fatty acid only

Question

From the passage, which of the following is true about ADHD?

Choose one answer.

- A. It tends to affect children more than adults
- B. Some cases are caused by deficiency of omega 3 fatty acid
- C. The severity differs from child to child
- D. It affects most aspects of a child's functioning

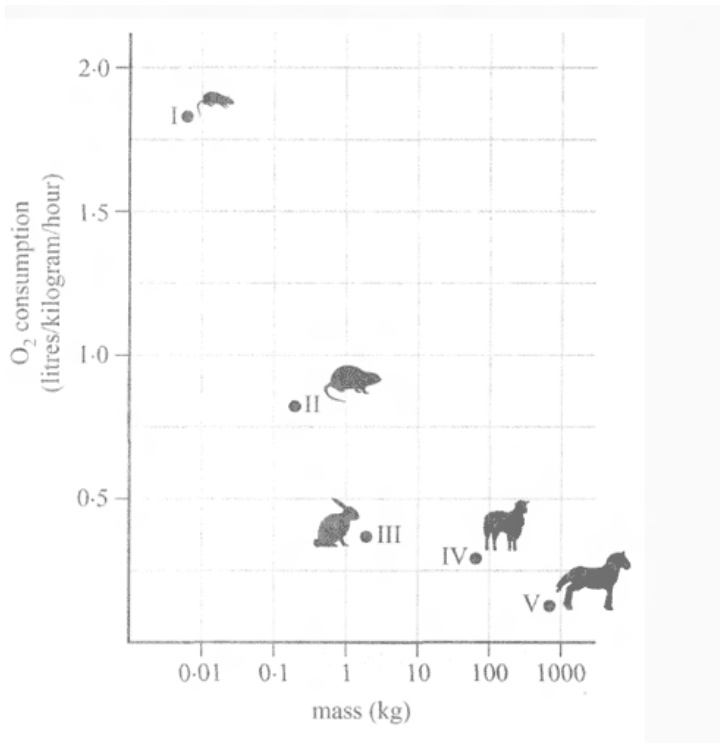
Question

Which of the following treatments is best in children with severe ADHD?

Choose one answer.

- A. High doses of the fish oil and evening primrose oil supplement
- B. Standard doses of fish oil and evening primrose oil supplement
- C. Stimulant medication only
- D. Both stimulant medication and the supplement

The following graph shows the relationship between mass and rate of oxygen (O₂) consumption (in litres per kilogram per hour) for some animals when resting.



Question

Which one of the following statements is most strongly supported by the graph?

In general, per kilogram of body weight, smaller animals

Choose one answer.

- A. have smaller lungs compared to larger animals.
- B. have larger lungs compared to larger animals.
- C. require more oxygen compared to larger animals.
- D. require less oxygen compared to larger animals.

Question

Which one of the following is the best estimate of the amount of oxygen animal IV uses in an hour?

Choose one answer.

- A. 5 litres
- B. 25 litres
- C. 100 litres
- D. 125 litres

Question

A study revealed that although most adults estimated their diets to correspond closely with the recommendations of standard nutritional guidelines, most of their diets did not come close

to those recommendations. Both women and men underestimated the amount of fat in their diets and overestimated their intake of most other foods. In most food categories, especially fruits and vegetables, women's diets did not meet the recommendations. Men underestimated their fat intake by half, and though they met the recommendations for breads, they fell short in all other categories.

Which of the following can best be concluded?

Choose one answer.

- A. Both men and women in the study misjudged their compliance with the nutritional guidelines in every food category.
- B. In the study, more men than women were aware that in some food categories their diet failed to reflect the recommendations closely.
- C. Men in the study estimated their daily intake of fruits and vegetables to be significantly lower than it in fact was.
- D. Most men in the study did not consume the amounts of fruits and vegetables that the nutritional guidelines recommend.

Question

Various plants, Quibb, Rudd, Vill and Fogg grow on four islands. Quibb and Rudd are together on only one island. Vill and Fogg are together on only two islands. Vill and Quibb do not grow on the same island. All islands have at least one plant.

Which of the following cannot be correct?

Choose one answer.

- A. One island contains Rudd and Fogg
- B. No islands contain Rudd and Vill
- C. Three islands contain Quibb and Rudd
- D. One island contains Rudd only

When fighting bushfires, a major problem for firefighters is dealing with the heat. Heat enters, leaves or is produced in a firefighter's body by the following processes:

- Radiation: heat from the fire and the sun radiate to the firefighter's body;
- Conduction/convection: body heat is carried away by the surrounding air;
- Metabolism: heat is produced in the firefighter's body;
- Evaporation of sweat: heat is removed from the firefighter's body as sweat evaporates from skin and clothing

In a study of heat balance in firefighters, two groups of firefighters built a firebreak - a hard physical task. One group did so next to a fire. The other group did exactly the same work under the same conditions except that no fire was burning nearby. Table 1 gives the average results for the firefighters in the two groups.

Process	Amount of heat gained or lost per minute by the body	
	Fire nearby	No fire nearby
Radiation	Gain of 260 joule	Gain of 51 joule
Conduction / convection	Loss of 60 joule	Loss of 80 joule
Metabolism	Gain of 488 joule	Gain of 561 joule
Evaporation of sweat	Loss of 688 joule	?

The amount of sweat that evaporates is the amount that is required to keep the body's temperature constant (i.e. the sum of gains and losses will be zero). Note that no value is given for the evaporation of sweat when building a firebreak with no fire nearby.

- Although Table 1 provides average results, assume that these apply to any individual firefighter
- Although some of the processes can transfer heat to or from a firefighter, this unit and Table 1 refer to net gains and losses of heat by each process. Use the figures given in the table when answering the questions.

Question

When building a firebreak, the body of a firefighter

Choose one answer.

- A. Loses heat by radiation and gains heat by conduction/convection
- B. Gains heat by radiation and loses heat by conduction/convection
- C. Loses heat both by radiation and conduction/convection
- D. Gains heat both by radiation and conduction/convection

Question

The heat lost by evaporation of sweat from the body of a firefighter in one minute while building the firebreak without a fire nearby is

Choose one answer.

- A. 532 joule
- B. 590 joule
- C. 612 joule
- D. 688 joule

Question

Jeremy is a firefighter taking part in hard physical work near a fire. He is least likely to gain heat via

Choose one answer.

- A. Radiation
- B. Conduction / convection
- C. Metabolism

- D. Evaporation of sweat

Question

Out of the 5 week days, Kiara lies on Fridays and Wednesdays but tells the truth on the other 3. Mary lies on Mondays and Tuesdays but tells the truth on the others. Ben lies on Tuesdays and Thursdays but tells the truth on the others. Emma lies on Thursdays and Fridays but tells the truth on the others.

On a particular day, Mary calls Kiara a liar. Kiara says that Ben is not to be believed. Ben then backs Mary up and says that Mary is telling the truth. At which point Emma chimes in and says that Kiara is in fact telling the truth.

Which of the given days of the week must it be?

Choose one answer.

- A. Thursday
- B. Friday
- C. Wednesday
- D. Monday

Question

A researcher is investigating the reactivity of two chemicals, X and Y, to determine their suitability for use in a chemical plant. Reactivity was measured by determining the extent to which chemicals X and Y bound to a third, inert substance. The researcher finds that as the temperature of a solution of water and chemical X increases, the reactivity of chemical X also increases. He also finds that as the temperature of a mixture of chemical X and chemical Y increases, the reactivity of chemical Y increases but the reactivity of chemical X remains constant. Further, as the temperature of a solution of water and chemical Y increases, the reactivity of chemical Y remains constant.

From the above information, what conclusion may be drawn?

Choose one answer.

- A. A change in temperature has no effect on the reactivity of chemical X
- B. When combined, chemical X and chemical Y display different reaction levels than when studied separately
- C. When combined with chemical X, chemical Y demonstrates the same reactive properties as it does when it is studied alone
- D. A change in temperature produces a greater effect on chemical Y than it does on chemical X

A researcher wanted to investigate the effect of 'crowding' on people's moods. Her hypothesis¹ was that the more crowded a person feels, the more depressed that person will become. She tested first year students from Flinders University. To begin with, every student was given a mood questionnaire to complete in a 25 minute time slot. A week later, a group of 85 males and 33 females began their lectures in an auditorium that had the capacity to hold 1067 students. Another group consisting of the same number of students began their lectures in a tutorial room with a capacity for 50 students.

Both lectures were held simultaneously and gave students the same information. The lectures were conducted every week for three months. After this, all students were given the same

mood questionnaire to compete in the same length of time. The researcher then compared the two groups and noted any changes in the moods of the students. She found that those in the 'crowded' group were, on the whole, more depressed than those in the less crowded group.

¹ *Hypothesis*: a tentative explanation for an observation that can be tested by further investigation

Question

A similar experiment was conducted, but in this one, a much greater percentage of students in the 'crowded' group suffered from depression prior to the commencement of the research.

This would

Choose one answer.

- A. Affect the research, because the group of depressed students may cause other members of the group to be depressed
- B. Not affect the research, because the number of students is so large
- C. Affect the research, because some of the students may not have been able to complete the experiment
- D. Not affect the research, because each group was being compared against baseline questionnaire scores

Question

The most probable reason that the lectures were held simultaneously was to

Choose one answer.

- A. Save time in conducting the experiment
- B. Ensure that one group could not discuss the content of the lecture with those who had not yet had their lecture
- C. Ensure that the students went to the right lecture
- D. Ensure that depression was not affected by when the lecture was held

Question

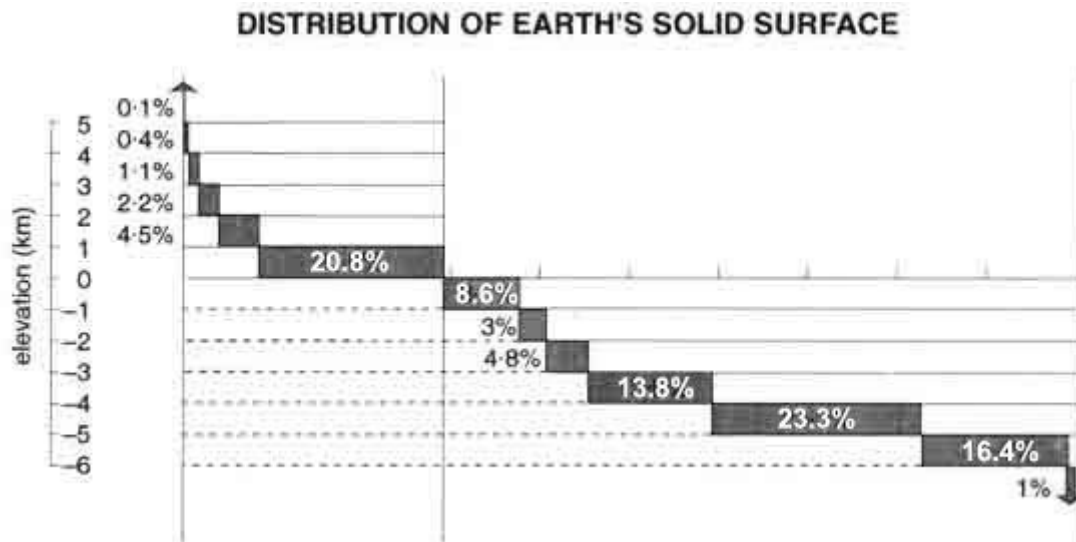
Amanda holds a dinner party and invites 5 of her friends. Allison wears a red blouse and blue skirt. Amy comes in a turquoise jumper and black jeans. Anne arrives in a blue dress with turquoise stockings. Avril wears a green shirt and white pants. Annalise arrives wearing a black skivvy and green mini-skirt. Amanda herself wears a white top and red leggings.

Amanda is not very colour co-ordinated and manages to seat her guests on the round table such that no two people sitting beside each other are wearing clothing of the same colour.

Which of the below seating plans could have been used by Amanda?

Choose one answer.

- A. Anne, Annalise, Allison, Amy, Amanda, Avril
- B. Amanda, Amy, Avril, Allison, Annalise, Anne
- C. Allison, Annalise, Anne, Avril, Amy, Amanda
- D. Avril, Anne, Amanda, Amy, Annalise, Allison



The graph shows the distribution of the earth's solid surface in relation to sea level. Sea level has an elevation of 0 kilometres.

Question

What percentage of the Earth's surface is between sea level and 3 km above sea level?

Choose one answer.

- A. 4.5 %
- B. 7.8 %
- C. 20.8%
- D. 27.5%

Question

Mount Boot has its summit at 4 km above sea level. **If you were to stand on the summit, what percentage of the earth's surface would be higher than you?**

Choose one answer.

- A. 0.1 %
- B. 0.4 %
- C. 0.5 %
- D. 1.6 %

Question

Which one of the following is a correct statement about the distribution of Earth's surface? The area of ocean floor

Choose one answer.

- A. Deeper than 5 kilometres is greater than the area of land higher than 1 kilometre
- B. Deeper than 6 kilometres is greater than the area of ocean less than 1 kilometre deep
- C. Less than 3 kilometres deep is less than the area of land higher than 1 kilometre

- D. Deeper than 4 kilometres is less than the area of land more than 4 kilometres high

Question

Michael has eight drinking glasses all of different sizes. He lined them up from smallest to largest and numbered them one (smallest) to eight (largest). He knows that glass four holds ten centilitres (one centilitre is one hundredth of a litre, or ten millilitres). He also knows that glass seven holds sixteen centilitres. Michael experiments by filling up different glasses with water and pouring the water back and forth into other glasses.

The results are as follows. Pouring water from glasses one and two filled glass four. Pouring water from glasses one and three filled glass five. Pouring water from glasses two and three filled glass six. Pouring water from glasses one and five filled glass seven. Pouring water from glasses one and seven filled glass eight. Pouring water twice from glass three filled glass seven. Pouring water twice from glass four filled glass eight.

How much water does glass five hold?

Choose one answer.

- A. Ten centilitres
- B. Twelve centilitres
- C. Fourteen centilitres
- D. Sixteen centilitres

Question

Many researchers believe that the presence of ribonucleic acid (RNA) in brain cells is the biochemical basis of memory and some experts have referred to RNA as the memory-storage molecule. Several experiments have been conducted to investigate the role of RNA in memory. Long-term administration of yeast RNA was found to improve memory in human subjects with presenile dementia. In another well-known experiment involving cannibalism, flatworms which had learned a particular response were then fed to untrained worms, which were then able to learn the response twice as fast as their predecessors. However, there is still controversy regarding such findings, since both experiments involved chemical transfer of pre-existing RNA. Another experiment was developed based on the knowledge that certain chemicals inhibit the synthesis of RNA in the body. Animals that have learned particular responses were injected with an RNA inhibitor and then tested for memory of the learned responses at a later stage.

Which of the following test results would most seriously weaken the case for RNA as the basis of memory?

Choose one answer.

- A. After an injection of RNA inhibitor, animals that had not consistently been giving the learned responses were able to give them consistently
- B. After injections of RNA inhibitor some animals lost memory of the learned responses totally but others lost it only partially
- C. After a small injection of RNA inhibitor, animals responded well, but as the size of the injection increased, they gave fewer of the learned responses

- D. After an injection of the RNA inhibitor, animals could not learn a new response

The trees in Entland are small but very orderly. The main trunk splits into two major segments, each of which has three major branches on it. Each major branch has four minor branches. Each minor branch has three twigs, and each twig produces two leaves.

Question

How many leaves does an Entland tree have?

Choose one answer.

- A. 64
 B. 72
 C. 108
 D. 144

Question

If one major branch was broken off, the total number of leaves would be reduced by

Choose one answer.

- A. 6
 B. 16
 C. 24
 D. 36

Question

If, instead of the calamity referred to in the previous question, the number of minor branches on each major branch was reduced to three, the total number of leaves would be reduced by

Choose one answer.

- A. 6
 B. 16
 C. 24
 D. 36

Question

The following scale is called "The Beaufort Scale of Winds'. It was devised by British naval officer Francis Beaufort in 1805.

Jo goes outside to collect the mail and notices that

1. The small tree in her garden is moving slightly
2. The weather vane on her roof is pointing north
3. The waves in the distance have white peaks

From this, Jo can deduce that the wind speed is between

Force	Name	Effects On Land And Water	Wind speed	
			km/h	mph
0	Calm	Smoke rises vertically; water smooth	less than 2	1
1	Light air	Smoke shows wind direction; water ruffled	2-5	1-3
2	Light breeze	Weather vane moves; leaves rustle; wind felt on face	6-11	4-7
3	Gentle breeze	Loose paper blows around; flags extended	12-19	8-12
4	Moderate breeze	Small branches sway; small waves	20-29	13-18
5	Fresh breeze	Small trees sway; leaves blown off; white peaks	30-39	19-24
6	Strong breeze	Whistling in telephone wires; sea spray, large waves	40-50	25-31
7	Moderate gale	Large trees sway; sea heaps up	51-61	32-38
8	Fresh gale	Twigs break from trees; foam streaks on sea	62-74	39-46
9	Strong gale	Branches break from trees; high waves	75-87	47-54
10	Whole gale	Trees uprooted; weak buildings collapse	88-101	55-63
11	Storm	Widespread damage; long foam patches	102-120	64-72
12-17	Hurricane	Widespread structural damage; air full of foam, spray	over 120	75

Choose one answer.

- A. 19-24 km/h
- B. 20-29 km/h
- C. 32-38 mph
- D. 19-24 mph

Caffeine, the stimulant in coffee, has been called the most widely used psychoactive substance on Earth. Snyder, Daly and Bruns have recently proposed that caffeine affects behaviour by countering the activity in the human brain of a naturally occurring chemical called adenosine. Adenosine normally depresses neuron firing in many areas of the brain. It apparently does this by inhibiting the release of neurotransmitters, chemicals that carry nerve impulses from one neuron to the next. Like many other agents that affect neuron firing, adenosine must first bind to specific receptors on neuronal membranes. There are at least two classes of these receptors, which have been designated A1 and A2. Snyder et al. propose that caffeine, which is structurally similar to adenosine, is able to bind both types of receptors, which prevents adenosine from attaching there and allows the neurons to fire more readily than they otherwise would.

For many years, caffeine's effects have been attributed to its inhibition of the production of phosphodiesterase, an enzyme that breaks down the chemical called cyclic AMP. A number of neurotransmitters exert their effects by first increasing cyclic AMP concentrations in target neurons. Therefore, prolonged periods at the elevated concentrations, as might be brought about by a phosphodiesterase inhibitor, could lead to a greater amount of neuron firing and, consequently, to behavioural stimulation. But Snyder et al point out that the caffeine concentrations needed to inhibit the production of phosphodiesterase in the brain are much higher than those that produce stimulation. Moreover, other compounds that block phosphodiesterase's activity are not stimulants.

To support their case that caffeine acts instead by preventing adenosine binding, Snyder et al compared the stimulatory effects of a series of caffeine derivatives with their ability to dislodge adenosine from its receptors in the brains of mice. They reported that in general, the

ability of the compounds to compete at the receptors correlates with their ability to stimulate locomotion in the mouse. That is, the higher the capacity to bind at the receptors, the higher their ability to stimulate locomotion. Theophylline, a close structural relative of caffeine and the major stimulant in tea, was one of the most effective compounds in both regards.

There were some apparent exceptions to the general correlation observed between adenosine-receptor binding and stimulation. One of these was a compound called 3-isobutyl-1-methylxanthine (IBMX), which bound very well but actually depressed mouse locomotion. Snyder et al suggest that this is not a major stumbling block to their hypothesis. The problem is that the compound has mixed effects in the brain, a not unusual occurrence with psychoactive drugs. Even caffeine, which is generally known only for its stimulatory effects, displays this property, depressing mouse locomotion at very low concentrations and stimulating it at higher ones.

Question

According to Snyder et al, caffeine differs from adenosine in that caffeine

Choose one answer.

- A. stimulates behaviour in the mouse and in humans, whereas adenosine stimulates behaviour in humans only.
- B. increases cyclic AMP concentrations in target neurons, whereas adenosine decreases such concentrations.
- C. permits release of neurotransmitters when it is bound to adenosine receptors, whereas adenosine inhibits such release.
- D. inhibits both neuron firing and the production of phosphodiesterase when there is sufficient concentration in the brain whereas adenosine inhibits only neuron firing.

Question

According to Snyder et al, all of the following compounds can bind to specific receptors in the brain except

Choose one answer.

- A. IBMX
- B. caffeine
- C. theophylline
- D. phosphodiesterase

Question

Snyder et al suggest that caffeine's ability to bind to A1 and A2 receptors can be at least partially attributed to which of the following?

Choose one answer.

- A. The chemical relationship between caffeine and phosphodiesterase.
- B. The structural relationship between caffeine and adenosine.
- C. The structural similarity between caffeine and neurotransmitters.
- D. The ability of caffeine to stimulate behaviour.

Exam 9 - Section 2

The following extract is from an interaction between Steven Harris and his doctor. Steven has just been told he has epilepsy. His cousin also has the condition.

Doctor: There's one last thing we need to discuss. It's about driving. What was your cousin's experience?

Steven: Oh, no. That is simply out of the question. I am totally dependent on my car. I drive for over an hour to work each day. There's no way I can manage without driving.

Doctor: It must seem like adding insult to injury to tell you not to drive. I know how essential transport is. I wish I could make an exception for you but unfortunately the law is very clear.

Steven: What the hell am I supposed to do?

Doctor: For some people the requirement of being seizure free for one year is the most burdensome part of the treatment. It sure is the part that interferes with normal life the most.

Steven: You got that right.

Doctor: It must be difficult to imagine how this will affect so many parts of your life.

Steven: I guess I'll just have to deal with it. But I sure as hell don't have to like it.

Question

The doctor

Choose one answer.

- A. Is overly forceful towards Steven
- B. Understands Steven's concerns
- C. Fulfils Steven's requests
- D. Is patronising towards Steven

Question

In this interaction, Steven can best be described as

Choose one answer.

- A. Angry
- B. Resigned
- C. Determined

Question

In the doctor's first comment, he mentions Steven's cousin. This is

Choose one answer.

- A. Appropriate, since it reassures Steven that he is not alone in his experiences
- B. Inappropriate, as it is a deceitful way of introducing the topic of driving
- C. Inappropriate, because the experience of Steven's cousin may be different to Steven's
- D. Appropriate, because it draws upon Steven's previous experience and knowledge

A station wagon has collided head-on with a sedan. It was overloaded with junior cricketers aged twelve and thirteen on their way home from a night game and victory party. Pennants and trophies litter the road among the bodies. Some boys are still trapped in the station wagon.

Webber is grim-faced as he assists Borland. Borland works like a madman along with ambulance men and firemen. They have been working for some time and show signs of exhaustion. A small crowd watches on. An ambulance man was giving mouth-to-mouth resuscitation.

Borland, Webber and O'Rourke assist at the station wagon, pulling at the crushed metal with their bare hands. An ambulance man pushes his head and shoulders into the wreck and calls for assistance. Borland quickly reaches down into the wreck beside the ambulance man.

Borland: It won't be long now, lads, it's going to be all right, just hang on, don't give up on us

O'Rourke, shaken and exhausted, a boy's blood on his hands and smeared across his forehead, wanders away. He is on the verge of tears. He sees Webber dry-retching and crosses to him.

O'Rourke: You get used to it, son.

Question

The crowd of onlookers are likely to be

Choose one answer.

- A. In a state of shock
- B. Fascinated by the scene before them
- C. Unemotional
- D. Concerned

Question

Borland's reaction to the accident shows us he is

Choose one answer.

- A. Overwhelmed by the situation
- B. Furious at the needless waste of life
- C. Frustrated by how long the process is taking
- D. Compassionate towards the injured

Question

When O'Rourke says 'You'll get used to it, son,' we know that

Choose one answer.

- A. His experiences have made him immune to such tragedy
- B. His aim is to encourage Webber to control his emotions
- C. He feels that attending accidents is part of a policeman's job
- D. He is trying to comfort Webber despite how he feels himself

Doctor: Mr Peterson, what are you doing back today? Is there something I can do for you?

Mr Peterson: You gave me a prescription for Valium and when I went to get it they gave me this Diazepam instead. When I tried to tell them they were wrong, they told me that you really wrote for the generic¹. Did you lie to me?

Doctor: It's true that I wrote 'Valium' on the prescription, but there is a generic available. The pharmacy is required to use the generic whenever a doctor doesn't specifically indicate that the replacement is unacceptable. I didn't see why you should have to pay extra so I didn't prohibit the replacement.

Patient: But I saw the paper - it said Valium.

Doctor: Do you know that the generic saved you about twenty dollars?

Patient: I don't care about the stupid money. You must have written Valium for a reason.

Doctor: Generics are the same as the brand name.

Patient: I know what generics are. I'm not stupid! I want the brand name and that's final. So give me a new prescription and this time make sure the pharmacy doesn't switch it on me!

¹*Generic:* A 'no brand' and generally less expensive version of the same drug.

Question

The doctor did not require the pharmacy to give the patient Valium (instead of the generic Diazepam) because

Choose one answer.

- A. He believed it would work better
- B. He thought the pharmacy would give the patient Valium
- C. He believed the patient would appreciate it
- D. It would be more expensive for the patient

Question

In the scenario, the patient most likely feels

Choose one answer.

- A. Concerned
- B. Suspicious
- C. Angry
- D. Patronised

Question

The doctor's comment 'Generics are the same as the brand name' is

Choose one answer.

- A. Effective, because it explains the difference between Valium and Diazepam
- B. Ineffective, since it does not address the concerns of the patient

- C. Effective, because it corrects the patient's misconceptions
- D. Ineffective, because in the context of the interaction, it appears condescending

‘Can you lend me ten dollars, Dad?’ I asked.

‘No,’ he answered without even looking up.

‘Aw, go on. Just til pocket money day. I’ll pay you back.’

He still didn’t look at me but started spreading butter onto a bread roll. He was acting just as if I wasn’t there. He ate the whole roll without saying one word. It was very annoying but I had to play it cool. If I made him mad I would never get the money.

‘I’ll do some jobs,’ I pleaded. ‘I’ll cut the whole lawn. That’s worth ten dollars.’

This time he looked up. ‘You must be crazy,’ he said, ‘if you think I’ll ever let you near that lawn mower again. The last time you cut the lawn you went straight over about fifteen plants I had just put in. They cost me twenty-five dollars to buy and five hours to plant. You cut every one of them off at the base and now you want me to give you ten dollars.’

I knew straight away I had made a mistake by mentioning the lawn. I had to change the subject. ‘It’s important,’ I told him. ‘I need it to take Tania to the movies on Saturday.’

‘That’s important? Taking Tania to the pictures is important?’

‘It is to me,’ I said. ‘She is the biggest spunk in the whole school. And she’s agreed to go with me if ...’ Another mistake. I hadn’t meant to tell him that bit.

‘If what?’ he growled.

‘If I take her in a taxi. If I can’t afford a taxi she’s going to go with Brad Bellamy. He’s got pots of money. He gets fifteen dollars a week from his Dad.’

‘Good grief, lad. You’re only fifteen years old and you want to take a girl out in a taxi.

What’s the world coming to? When I was your age ...’

‘Never mind,’ I said. ‘Forget it.’ I walked out of the room before he could get started on telling me how he had to walk five miles to school when he was a boy. In bare feet. In the middle of winter. And then walk home again and chop up a tonne of wood with a blunt axe. Every time he told the story it got worse and worse. The first time he told it he had to walk two miles to school. The way it was going it would soon be fifty miles and ten tonnes of wood chopped up with a razor blade.

I walked sadly out into the warm night air. Dad just didn’t understand. This wasn’t just any old date. This was a date with Tania. She was the best looking girl I had ever seen. She had long blonde hair, pearly teeth and a great figure. And she had class. Real class. There was no way that Tania was going to walk to the movies or go on a bus. She had already told me it was a taxi or nothing. I had to give her my answer by tomorrow morning or she would go with Brad Bellamy. He could afford ten taxis because his Dad was rich.

‘I’m going for a walk down the beach,’ I yelled over my shoulder. There was no answer. I might as well be dead for all Dad cared.

Question

“He still didn’t look at me but started spreading butter onto a bread roll. He was acting just as if I wasn’t there. He ate the whole roll without saying one word.”

The narrator found this annoying because

Choose one answer.

- A. The narrator just wanted an answer to his question
- B. The narrator felt like he did not exist

- C. The narrator was hungry
- D. The narrator wanted money

Question

Dad’s “story” probably gets “worse and worse” each time because

Choose one answer.

- A. Dad wants to make the story more exciting
- B. Dad does not feel as though he is making much of an impression on the narrator
- C. Dad can tell that the narrator is getting sick and tired of the same old story
- D. Dad feels sorry for himself

Question

The narrator wants to take Tania out on a date because

Choose one answer.

- A. He is in love with her
- B. Tania really likes him
- C. Tania is really good looking
- D. He believes it will make him popular

Question

By the end of the extract, the narrator feels

Choose one answer.

- A. Understanding of his father’s decision
- B. Like punching something
- C. Misunderstood
- D. Determined to find another means of getting the ten dollars

The scenario below shows a patient visiting their doctor after having cold symptoms.

Line 1: Patient: Thanks for seeing me on such short notice, Doc. I wouldn’t have come in if I wasn’t nearly dead.

Line 2: Doctor: Oh? Are you feeling bad? How?

Line 3: Patient: I’ve been sick all week, and I have to fly to Portland this weekend.

Line 4: Doctor: What sort of symptoms?

Line 5: Patient: Mostly a sinus infection. I can’t breathe.

Line 6: Doctor: You can’t breathe?

Line 7: Patient: No. My sinuses are blocked, I can hardly breathe on one side of my nose.

Line 8: Doctor: How is it with your mouth open?

Line 10: Patient: Well, that's fine. But I can't go around like some kind of fish you know.

Line 11: Doctor: Well, let's take a look at you. Hop up on the examination table.

(Examination)

Line 12: Doctor: Well, the examination is entirely normal. All you've got is a cold. Take one of the over-the-counter decongestants. Maybe a couple of aspirins. We'll see you for your physical in six months.

Line 13: Patient: You mean you aren't going to give me something? I got to go out of town in three days, and I can't be sick.

Line 14: Doctor: Sometimes we use an antibiotic; but you aren't sick enough to make it worthwhile.

Line 15: Patient: What is this? I'm not sick enough? What's going on? Is this because I'm enrolled in Care-a Care? They tell you they save a few bucks by not prescribing penicillin?

Line 16: Doctor: That doesn't have anything to do with it. I treat you just like patients who pay right up front.

Line 17: Patient: Hey! I pay plenty for this insurance, Doc, and I don't see how I'm getting my money's worth.

Question

In line 2 the doctor is

Choose one answer.

- A. gloating over how the patient is sick and he is not.
- B. attempting to make the patient explain his sickness and symptoms.
- C. extremely concerned for the patients immediate well-being.
- D. engaging in small talk to make the patient feel at ease.

Question

In lines 12 and 14, the doctor

Choose one answer.

- A. inadvertently provokes the patient by implying the patient isn't really sick and is not worth the treatment.
- B. fails to diagnose the patient correctly and as a result offers him the wrong solution.
- C. is extremely friendly and understanding of the patient's situation.
- D. thinks the patient is just faking the symptoms.

Question

In line 15, the doctor has made the patient

Choose one answer.

- A. concerned and overwhelmed.
- B. indifferent and distressed.
- C. saddened and distrustful.
- D. frustrated and suspicious.

The following passage is from a play. It is the first day in the police force for twenty-year-old Constable Ross. In a small suburban police station he meets with fifty-year-old Sergeant Simmonds.

Simmonds: Why'd you join, boy?

Ross: I just wanted to join.

Simmonds: All right. I'll just have to watch and find out because it's an important thing to know. It's important that I know as much about you as possible because then I won't make mistakes. Will I? Eh?

Ross: I suppose not.

Simmonds: We've got to work as a team, Ross. There'll be times when we've got to operate like a well-oiled machine and that's the sort of thing they can't prepare you for in training. What did they teach you in training school? How to shoot a pistol. Is that the sort of crap they taught you? Did you learn that? Eh?

Ross: Yeah. We did a bit of shooting.

Simmonds: And you shot at dummies. Eh? Ten points for the heart, six for the liver. Bloody stupidity.

Ross: You have to know how to shoot a pistol.

Simmonds: Next time you see a crim standing stock still with a target painted on his heart you tell me, Ross. They don't prepare you for the realities. That's what I'm saying.

Ross: We learned unarmed combat too.

Simmonds: What? They teach you how to shoot people then beat 'em up as well?

Ross: You've got to be prepared for all eventualities. That's what I reckon.

Simmonds: That's what you reckon, eh?

Ross: That's what I reckon. You've got to be trained for all eventualities in this rapidly changing world.

Simmonds: *[laughing]* Rapidly changing world. Did you swallow the brochures they gave you, Ross? Nothing changes in this world, boy.

Question

Overall, Simmonds's approach to Ross is best described as

Choose one answer.

- A. stiff and formal.
- B. jovial and accommodating.
- C. patronising and overbearing.
- D. a stumbling attempt at friendship.

Question

Ross's responses reveal

Choose one answer.

- A. naive confidence.
- B. secret admiration.
- C. extreme humiliation.
- D. nervous embarrassment.

Question

From the passage it seems that Simmonds's idea of working in a team is to

Choose one answer.

- A. form a basis of mutual respect.
- B. establish a close friendship.
- C. be open and collaborative.
- D. become exactly alike.

Question

Simmonds behaves as if Ross is

Choose one answer.

- A. a slight threat.
- B. a welcome support.
- C. an intimidating fraud.
- D. genuine good company.

The passage below is adapted from a novel set in Australia in the early years of the twentieth century.

At the tennis parties for the young folk on the serene lawns and courts of Kissing Point Road, I was the fat girl who looked like coconut ice when she blushed. I had not been kissed at any point. Some boys, gallant by nature perhaps, or attracted by Father's rumoured money, or most likely doing it for a dare, attempted conversation. No one attempted tennis. There was one with hair the colour of autumn who held my hand and told me I was gorgeous. When I watched him later, laughing with a girl whose tan was as smooth as a leaf, I wished I could

hide, but there was no place to hide in those sunny gardens.

In the shade, under the jacaranda where no profane kookaburra ever perched and cackled, white-clothed tables were spread with food and here I could at least console myself with another slice of cream pie.

She is bright, of course, I heard the mothers tell each other as they fanned themselves under the jacarandas. *She is ever so clever*. I gulped down the last of my cream pie and filled my mouth with noisy ginger beer but nothing could stop me from hearing. *It is just as well*, some mother said languidly, and loudly enough to carry. *Is she feeding those brains of hers, do you think?* The tinkling of so many titters, and their faces all turned towards me behind their fans, drove me like a thwarted cow back out of the shade and onto the terrible sunlit stage of the lawn.

On the lawn, all the young folk were at ease with their futures. Here, everyone was graceful, leaning on a croquet mallet or swinging a tennis racquet. They were not troubled by much, these confident people, and most troubles could be washed out in soap and water, or laughed away.

Question

The passage implies that, for the speaker, the tennis parties

Choose one answer.

- A. are an ordeal that must be endured.
- B. offer a source of amusement and entertainment.
- C. represent an opportunity to refine her social skills.
- D. represent an opportunity to improve her tennis and croquet.

Question

The sunlit lawn is 'terrible' for the speaker because

Choose one answer.

- A. it is like a spotlight stage.
- B. its harsh rays are likely to damage her sensitive skin.
- C. her eyes must adjust abruptly after the soothing shade of the jacarandas.
- D. the sun's intensity contrasts sharply with the languidness of the mothers.

Question

The passage suggests that the women under the jacarandas

Choose one answer.

- A. are friendly and discerning.
- B. have little regard for the speaker.
- C. wish their own children were as clever as the speaker.
- D. genuinely admire the speaker but disapprove of her greed.

Question

The suggestion that most of the young people's troubles could be washed out implies

Choose one answer.

- A. courage.
- B. efficiency.
- C. cleanliness.
- D. superficiality.

The following passage is from a Latin-American novel which has been translated into English. The narrator is an adult male recalling his childhood after the death of his mother when he was four years old.

The presence of a woman was deemed necessary for my care. As Aunt Mathilda was the only woman in the family and she lived with my uncles Armand and Gustav, the three of them came to live at our house, which was spacious and empty.

Aunt Mathilda discharged her duties towards me with that propriety which was characteristic of everything she did. I did not doubt that she loved me, but I could never feel it as a palpable experience uniting us. There was something rigid in her affections, as there was in those of the men of the family. With them, love existed confined inside each individual, never breaking its boundaries to express itself and bring them together. For them to show affection was to discharge their duties to each other perfectly, and above all not to inconvenience, never to inconvenience. Perhaps to express love in any other way was unnecessary for them now, since they had so long a history together, had shared so long a past. Perhaps the tenderness they felt in the past had been expressed to the point of satiation and found itself stylised now in the form of certain actions, useful symbols which did not require further elucidation. Respect was the only form of contact left between those four isolated individuals who walked the corridors of the house which, like a book, showed only its narrow spine to the street.

Question

The narrator feels that Aunt Mathilda loved him

Choose one answer.

- A. less than he had expected.
- B. more than he had expected.
- C. genuinely, and according to her nature.
- D. grudgingly, because she was required to.

Question

Which of the following words best describes the love that existed within the narrator's family?

Choose one answer.

- A. fickle.
- B. artificial.
- C. habitual.

- D. manipulative.

Question

The comparison of the house with a book (final sentence) suggests that the narrator felt that his family was

Choose one answer.

- A. easy for others to get to know.
- B. difficult for others to appreciate.
- C. just like other families in the street.
- D. avoided by other families in the street.

And now they came - the demonstrators and their amused or sympathetic observers, streaming up the street, the sound of their voices, their footsteps, causing Mr Gaynor to flex and tremble. The demos, oh God, the demos. What would be their mood? If the police had suppressed them would they take it out on him! The window of the shop darkened as a mass of figures surged towards the milk bar doorway. Young men came carrying placards with the flaring legend 'KILLER KY', looking, Mr Gaynor thought, themselves like killers. Numerous Save Our Sons ladies bustled in, taking over tables and chairs as if they owned the place, ordering tea and sandwiches. Mr Gaynor was offended by what he saw as high-handedness and aggression. They were only women. His voice hoarse and wavering he shouted, 'No tea and sandwiches. Not enough staff. It was his shop and he would declare his rules if they killed him for it - these - these untypical Australians. He confronted the annoyed women, trembling, but with his sense of possession stiffening him to anger. They were only women.

Just then half a dozen huge policemen entered, towering over the heads of the crowd in the shop. An expression of deep content erased the lines of strain from Mr Gaynor's face. Here were his protectors against all unruliness and disorder. Lovingly, he cried, 'Officers, what do you wish?'

'Can you do tea and sandwiches for six?'

'Certainly, officers, certainly.'

Several demonstrators protested: 'Thought you said the tea and sandwiches were off.

'Yes - off. Off!' Mr Gaynor said with open hostility. Hadn't they scared the living daylight out of him?

'How come they're on for the coppers?'

Loudly Mr Gaynor said, 'A very special favour for the officers'.

'That's not fair!'

At that moment the demonstrators saw no difference at all between the police and themselves - only outside in the street earlier, chanting and straining against the linked beefy hands. Inside Mr Gaynor's shop all men were equal. Not so. In Mr Gaynor's shop the police were

more equal than others. The police who would protect his beloved property. No one could be more equal than the police. In a low caressing voice Mr Gaynor added: 'It's on the house, officers'.

Question

Mr Gaynor's behaviour towards the demonstrators in his shop is best described as

Choose one answer.

- A. unfriendly and resentful.
- B. abrupt and menacing.
- C. inattentive and rude.
- D. cold and aloof.

Question

'At that moment the demonstrators saw no difference at all between the police and themselves - only outside in the street earlier, chanting and straining against the linked beefy hands. Inside Mr Gaynor's shop all men were equal. Not so.'

This suggests that the demonstrators regarded the police as their

Choose one answer.

- A. allies inside the shop and their enemies on all other occasions.
- B. equals inside the shop and their opponents during the demonstration.
- C. protectors inside the shop and their opponents on all other occasions.
- D. enemies inside the shop and their oppressors during the demonstration.

Question

The passage suggests that above all else Mr Gaynor valued his

Choose one answer.

- A. personal safety.
- B. regular customers.
- C. Australian citizenship.
- D. ability to control a mob.

Question

Mr Gaynor is depicted in the passage as

Choose one answer.

- A. caring and sensitive.
- B. bitter and pessimistic.
- C. excitable and insecure.
- D. authoritative and inflexible.

The following is a conversation between a father and his son. The father has just found out that his son hit his sister today, making her cry.

1 Father: I need to talk to you about what you did today. Do you know what you did was wrong?

2 Son: Yes.

3 Father: Why was it wrong?

4 Son: I don't know. I was only playing, and having fun.

5 Father: Do you think your sister was having fun?

6 Son: Probably not.

7 Father: You have to understand that hitting people is not fun for anyone, certainly not for your sister. No-one has the right to hit anyone else. You have to think about how you might feel if somebody hit you.

Question

How does the boy's father approach the issue of the boy doing something wrong?

Choose one answer.

- A. He exaggerates the seriousness of the incident to make the boy realise his mistake.
- B. He empathises with his son, as he realises he was just trying to have fun.
- C. He clarifies the incident with his son and sympathises with him.
- D. He helps his son to understand why he was wrong by making him empathise with his sister.

Question

The boy may have used the word 'probably' in comment six in an attempt to

Choose one answer.

- A. pretend he didn't realise at the time that his sister wasn't having fun
- B. grudgingly admit he may have been wrong hitting his sister
- C. add uncertainty in his father's mind about whether hitting his sister was wrong
- D. all of the above

Question

The father's final sentence attempts to

Choose one answer.

- A. close the matter without hurting the boy's pride.
- B. threaten the boy by suggesting someone might hit him.
- C. teach him to empathise with others.
- D. absolve him of responsibility.

One year ago Jason had a heart attack. He participated in the trial of a new weight loss drug and within 6 months had lost 16kg, but last week he weighed in 5kg heavier than when he had started. The following extract is a discussion between Jason and his doctor:

Jason: Despite my penchant* for healthy eating, it's the convenience of fast food that draws me. When I was taking the tablets, regardless of the food I ate I didn't seem to keep the calories. Can't you just put me back on the program?

Doctor: The trial period has ended. But weight loss requires sustained behaviour change. Many patients are only concerned about being fatter but increasing fitness is a better focus.

Jason: I know I should be eating more fresh vegetables and exercising more, but the quick remedy is more appealing.

Doctor: When I was a child my mother read me a story about a wise king who was ready to retire. He set the task that the first to jump to the very top of his castle was to be the next king. A young boy started at the foot of the steps and jumped them one by one till he reached the top. In time, he became king.

Jason (sighing): So what you're saying is small steps at a time.

Doctor: Precisely.

*Penchant – A definite liking/strong inclination

Question

The doctor's general approach to Jason is to

Choose one answer.

- A. Instil hope in him whilst outlining the need for perseverance.
- B. Reprimand him for being lazy.
- C. Explain why he put the weight back on.
- D. Prevent him for trying to go back on the weight loss drug.

Question

Jason's sigh indicates that he is

Choose one answer.

- A. Disappointed in the doctor's treatment of him
- B. Bored of the doctor
- C. Frustrated that his weight loss will be a slow process
- D. Feeling depressed

The following passage is an excerpt from a novel. Mrs Lee is Mui Ee's mother, and Chung Kai is Mui Ee's boyfriend.

“So you decide to come home, ah?” Mrs Lee's voice was accusing. “Why? Your Boy Friend not free to go out today, is it?”

“Ma,” Mui Ee said calmly. “I was giving tuition. Today is Thursday, remember?”

Her mother adjourned to the spotlessly clean kitchen of their modest three-room flat and continued her tirade. “I don’t understand you young girls today. So young already want to talk to boys, go out with boys. Why?”

Mui Ee sat on the worn sofa in the sitting-hall and began undoing her shoe laces. Well, Ma seems better today. Better than yesterday, at least. The girl remembered her mother’s angry shouting the day before, when she found Mui Ee on the phone to Chung Kai for the second successive day.

“Who was that? That boy again?” She had demanded to know. “Why is he always calling you?”

A thought had suddenly struck her. “Don’t tell me he’s your Boy Friend,” she had asked with astonishment on her face.

“It’s not like that, Ma,” Mui Ee had tried to reason with her parent.

“You’re not even fifteen and you think you can have a Boy Friend.”

“Ma,” Mui Ee had said irritably. “I’ll be seventeen in four weeks’ time. You never remember my age.”

“So you think you’re a big girl now, is it?” Her mother’s voice had rolled on like an irresistible tidal wave. “You think you go to junior college now, you are very smart, is it? Well, let me tell you. Your father and I work hard for you to study. Not to go out with boys. I want you to stop seeing him.”

“Ma,” Mui Ee had protested, strenuously, angrily. It was pointless. Life at home would have been a constant stream of parental cross-examination and ridicule if she hadn’t given way.

After dinner, Mui Ee retired to her cramped bedroom. Something was missing ... what was it?

She remembered. This was the time she normally spoke to Chung Kai on the telephone. Only now it was her mother who was on the phone, telling one of her friends about her unfilial daughter and who had chosen to abandon her parents and chase boys.

Was it really necessary for her mother to go on and on and on about Chung Kai? She doesn’t know him at all. She’s never even met him before.

Mui Ee lay on her bed, too tired to sulk. I hate getting Ma angry. But I’m sixteen, almost seventeen. I’m supposed to be an adult already. There are some choices I should make on my own.

Question

The main point of conflict between Mui Ee and Ma is that

Choose one answer.

- A. Ma doesn't like Mui Ee's boyfriend.
- B. Mui Ee thinks she's ready to have a boyfriend, Ma doesn't she should.
- C. Mui Ee spends too much time out instead of at home with her parents.
- D. Mui Ee is not spending enough time studying.

Question

The analogy of the tidal wave emphasises

Choose one answer.

- A. How Mui Ee feels as though she is drowning in Ma's words
- B. Ma's physical strength
- C. Mui Ee's inner frustration
- D. Ma's relentless badgering

Question

Ma can be best described as

Choose one answer.

- A. Infuriated
- B. Indifferent
- C. Accusatory
- D. Understanding

Question

Mui Ee can be best described as

Choose one answer.

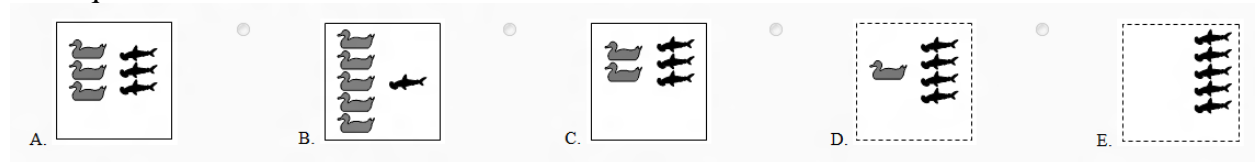
- A. Angry
- B. Argumentative
- C. Aggressive
- D. Accepting of her Ma's wishes

Exam 9 - Section 3

Question

Middle of the Sequence

The following five figures can be rearranged to form a logical sequence. Select the alternative (A, B, C, D or E) that most logically and simply fits in the **middle** of the sequence.

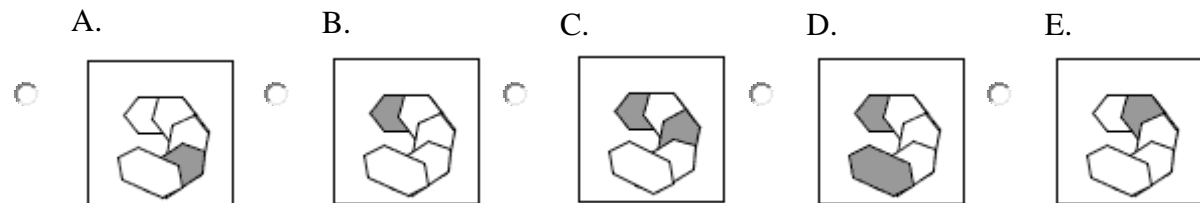


Question

Middle of the Sequence

The following five figures can be rearranged to form a logical sequence. Select the alternative (A, B, C, D or E) that most logically and simply fits in the **middle** of the sequence.

Choose one answer.

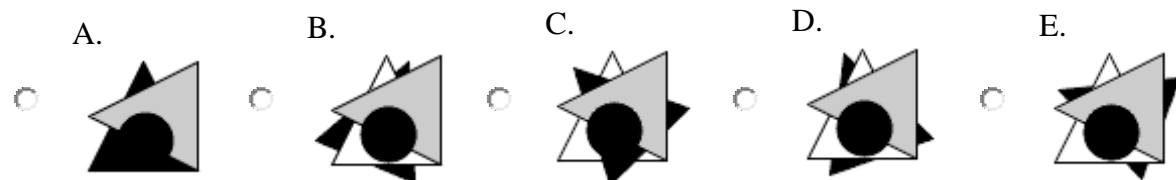


Question

Middle of the Sequence

The following five figures can be rearranged to form a logical sequence. Select the alternative (A, B, C, D or E) that most logically and simply fits in the **middle** of the sequence.

Choose one answer.

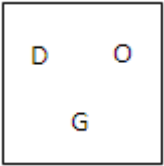
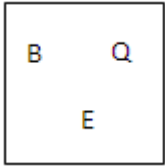
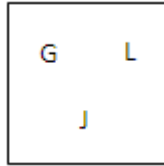
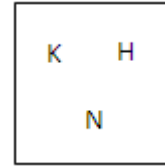
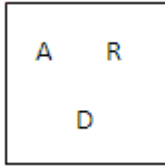


Question

Middle of the Sequence

The following five figures can be rearranged to form a logical sequence. Select the alternative (A, B, C, D or E) that most logically and simply fits in the **middle** of the sequence.

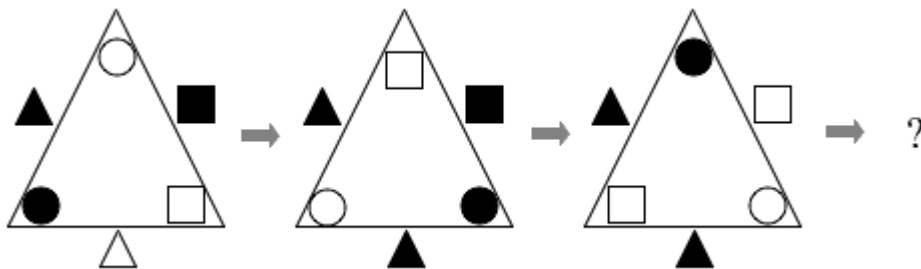
Choose one answer.

- A.  B.  C.  D.  E. 

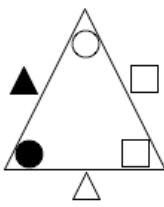
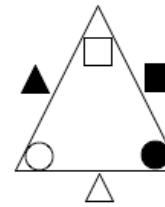
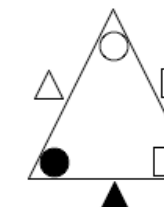
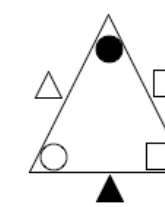
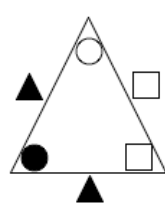
Question

Fourth in the Series

Select the picture that would most logically and simply be the fourth in the series.



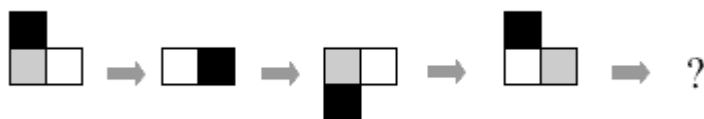
Choose one answer.

- A.  B.  C.  D.  E. 



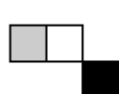
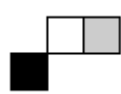

Question

Fifth in the Series

Select the picture that would most logically and simply be the fifth in the series.



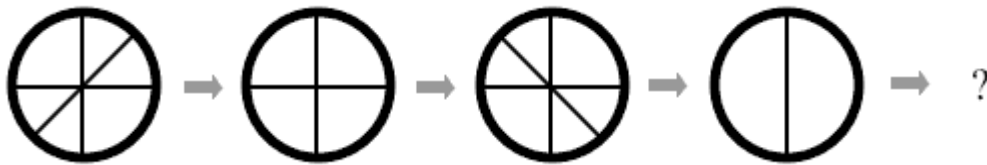
Choose one answer.

- A.  B.  C.  D.  E. 

Question

Fifth in the Series

Select the picture that would most logically and simply be the fifth in the series.



Choose one answer.

- A.
- B.
- C.
- D.
- E.

Question

Fifth in the Series

Select the picture that would most logically and simply be the fifth in the series.



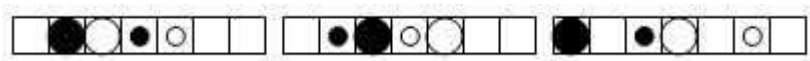
Choose one answer.

- A.
- B.
- C.
- D.
- E.

Question

Fourth in the Series

Select the picture that would most logically and simply be the fourth in the series.



Choose one answer.

- A.
- B.
- C.
- D.
- E.

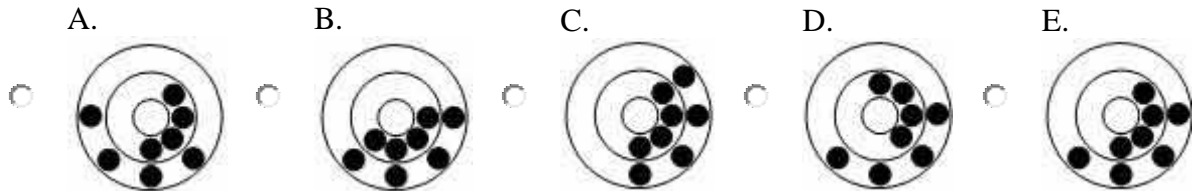
Question

Fourth in the Series

Select the picture that would most logically and simply be the fourth in the series.



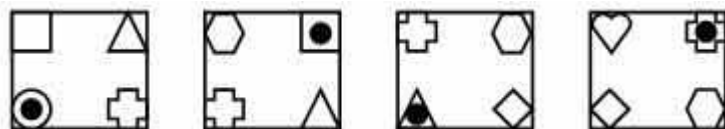
Choose one answer.



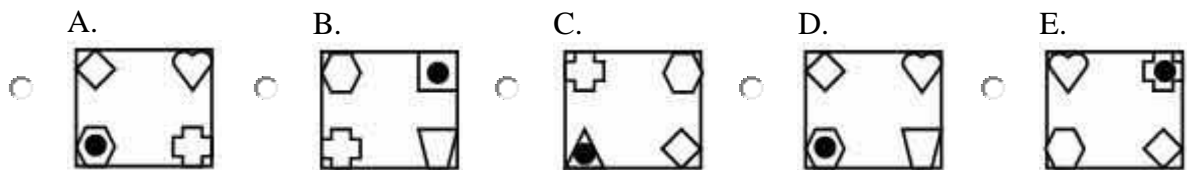
Question

Fifth in the Series

Select the picture that would most logically and simply be the fifth in the series.



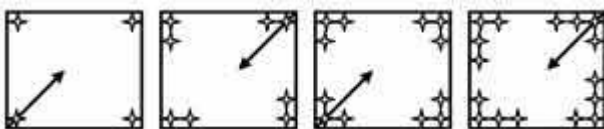
Choose one answer.



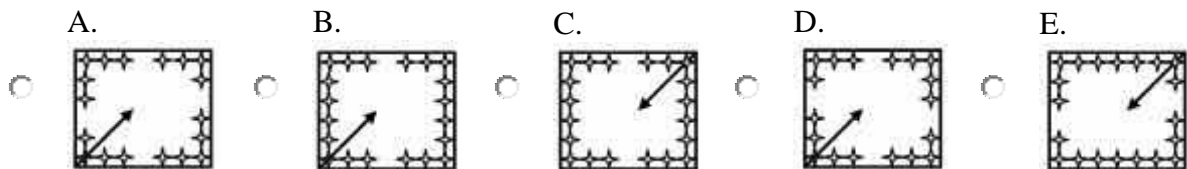
Question

Fifth in the Series

Select the picture that would most logically and simply be the fifth in the series.



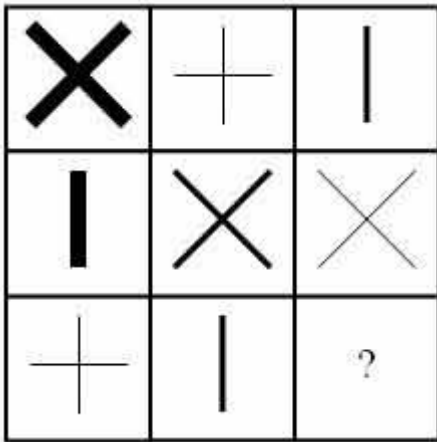
Choose one answer.



Question

Missing Segment

Select the segment that would most logically and simply complete the picture.



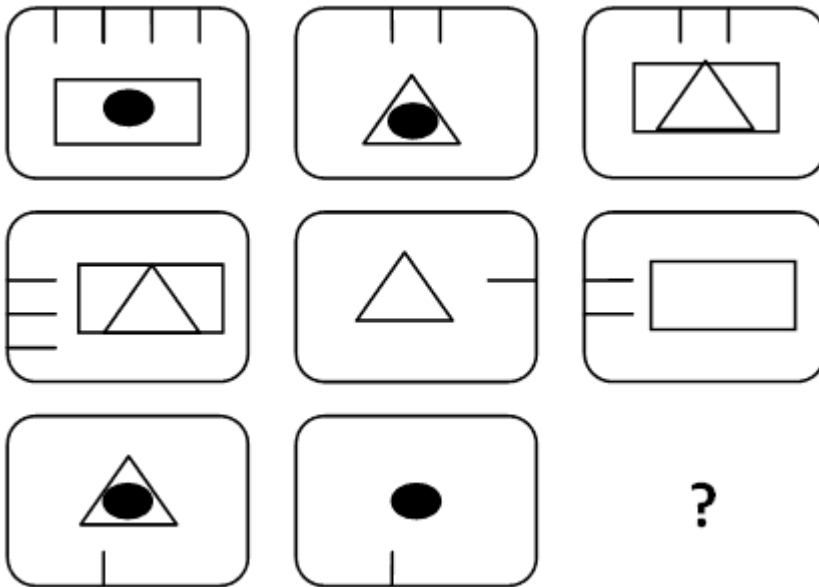
Choose one answer.

- A.
 B.
 C.
 D.
 E.

Question

Missing Segment

Select the segment that would most logically and simply complete the picture.



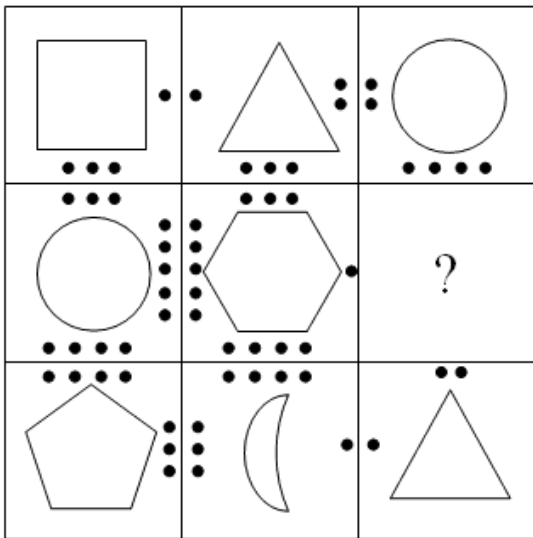
Choose one answer.

- A.
 B.
 C.
 D.
 E.

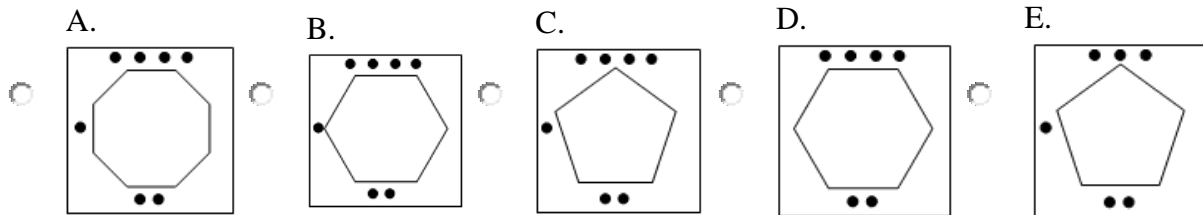
Question

Missing Segment

Select the segment that would most logically and simply complete the picture.



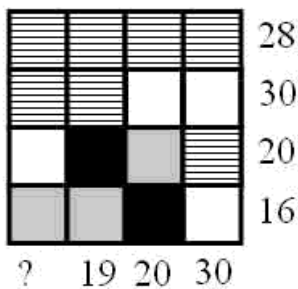
Choose one answer.



Question

Missing Number

Each of the small squares represents a number and the totals of rows and columns are provided. Find the missing number.



Choose one answer.

- A. 23 B. 25 C. 28 D. 30 E. 32

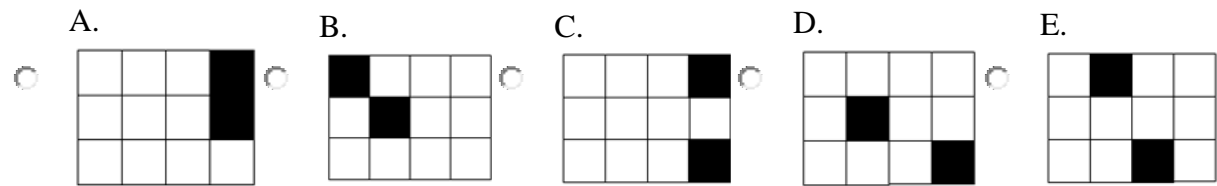
Question

Middle of the Sequence

The following five figures can be rearranged to form a logical sequence.

Select the alternative (A, B, C, D or E) that most logically and simply fits in the **middle** of the sequence.

Choose one answer.



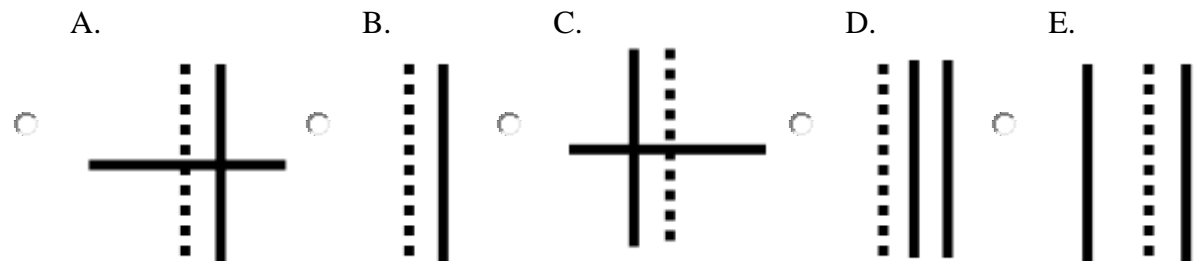
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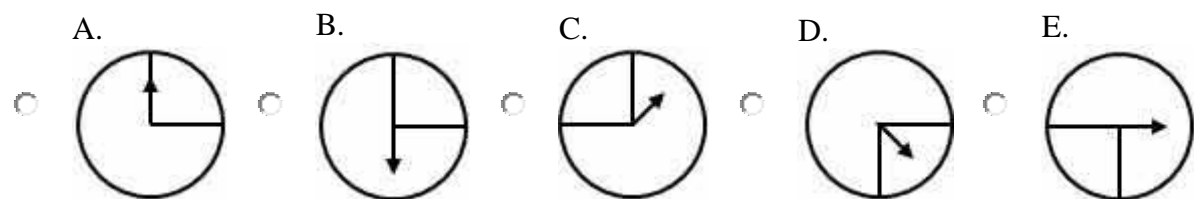
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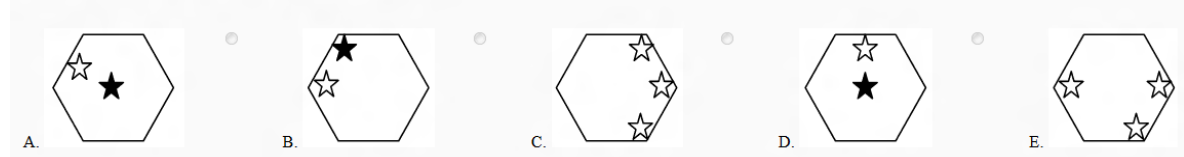


Question

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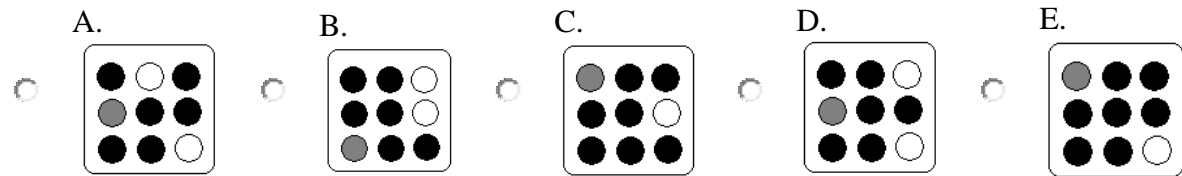
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Choose one answer.



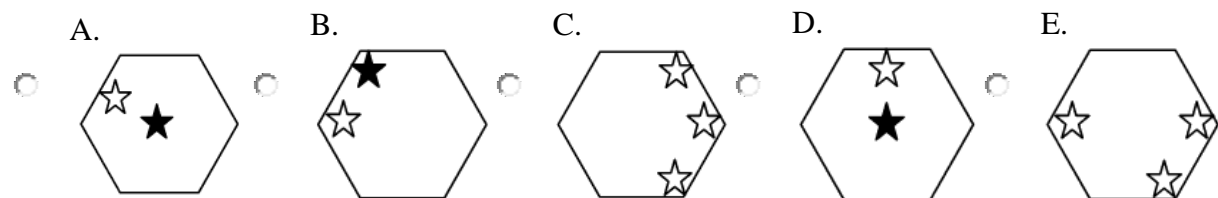
Question

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Choose one answer.



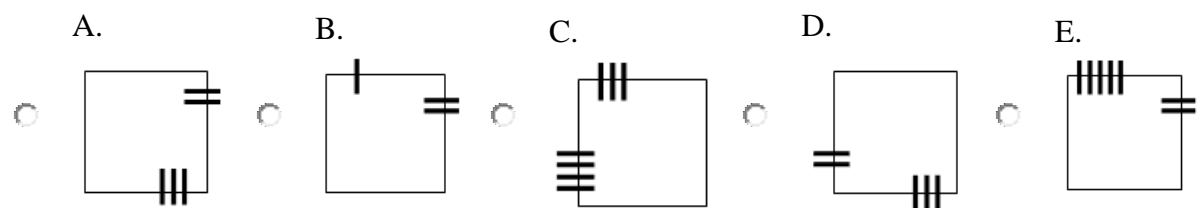
Question

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Select the alternative (A, B, C, D or E) that most logically and simply fits in the **middle** of the sequence.

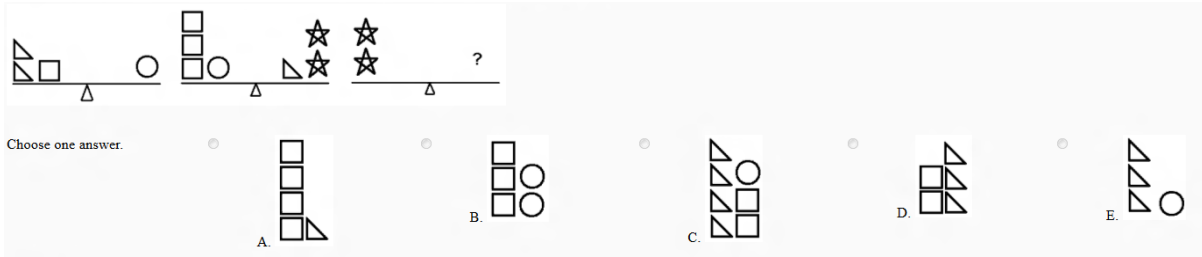
Choose one answer.



Question

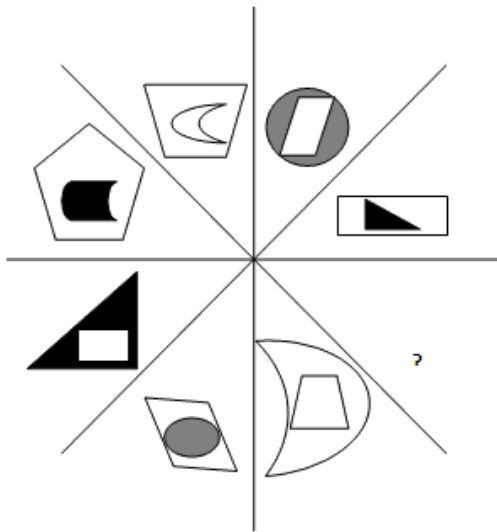
This is to That

Select the figure that would make a second pair of figures with the same relationship as the first pair.

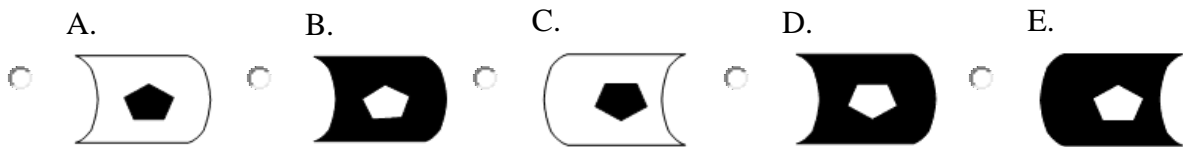


Question
Missing Segment

Select the segment that would most logically and simply complete the picture.

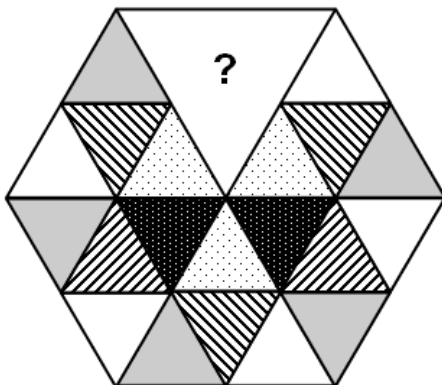


Choose one answer.

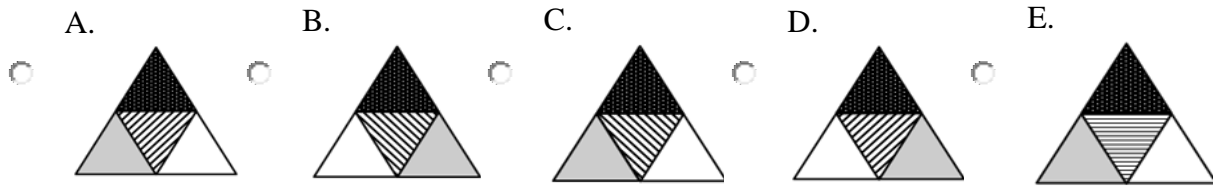


Question
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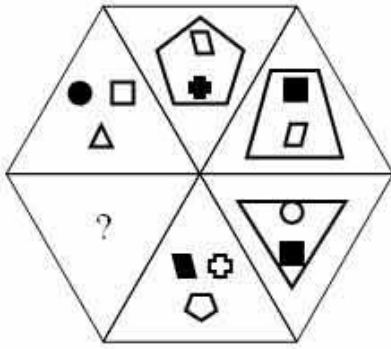
Choose one answer.



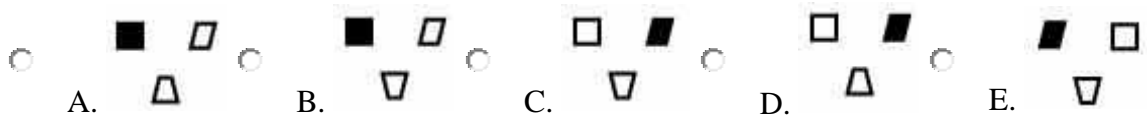
Question

Missing Segment

Select the segment that would most logically and simply complete the picture.



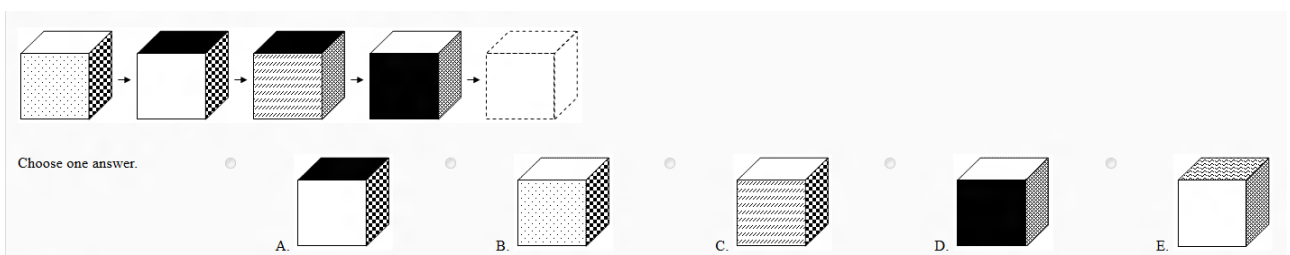
Choose one answer.



Question

Fifth in the Series

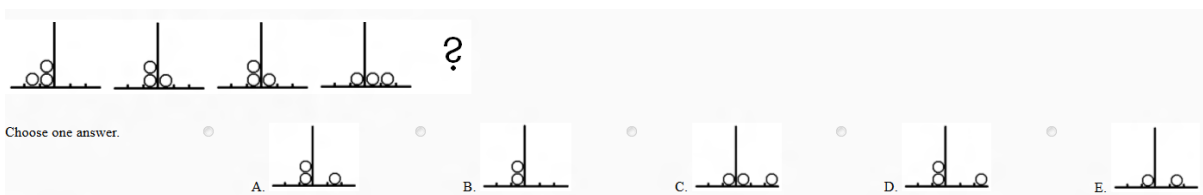
Select the picture that would most logically and simply be the fifth in the series.



Question

Fifth in the Series

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Question

Missing Segment

Select the segment that would most logically and simply complete the picture.

Choose one answer.

A. B. C. D. E.

Question

Middle of the Sequence

The following five figures can be rearranged to form a logical sequence.

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A. B. C. D. E.

Question

Missing Segment

Select the segment that would most logically and simply complete the picture.

Choose one answer.

A. B. C. D. E.

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Missing Segment

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Choose one answer.

A. B. C. D. E.

Question

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Select the segment that would most logically and simply complete the picture.

Choose one answer.

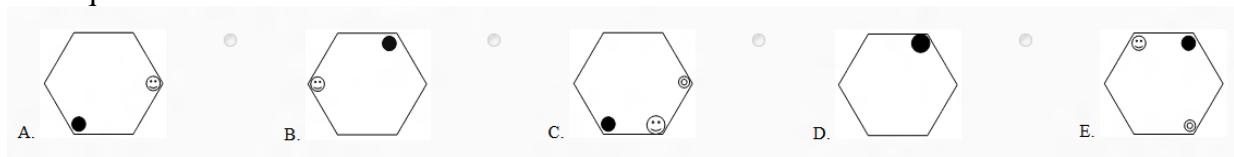
A. B. C. D. E.

Question

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The following five figures can be rearranged to form a logical sequence.

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Question

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Select the alternative (**A**, **B**, **C**, **D** or **E**) that most logically and simply fits in the **middle** of the sequence.

