

Test 4: Calculator allowed

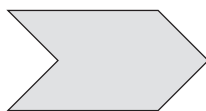
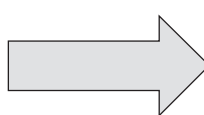


Instructions

- A correct answer scores 1 mark, and an incorrect answer scores 0.
- Marks are not deducted for incorrect answers.
- No marks are given if more than one answer alternative is shaded.
- Choose the alternative which most correctly answers the question and shade in the box next to it.

QUESTION 1

Which of the following shapes is a pentagon?

☐☐☐☒

SHADE ONE BOX



QUESTION 2

Which of these numbers is the smallest?

☐

3.101

☐

3.1101

☒

3.10001

☐

3.11001

SHADE ONE BOX



QUESTION 3

Sabah bought 7 bottles of milk at \$2.35 each and 4 cans of tomatoes at \$2.99 each. How much change did she get from \$50? Assume you can still get one- and two-cent coins.

☐

\$28.41

☐

\$27.76

☒

\$21.59

☐

\$38.29

SHADE ONE BOX



QUESTION 4

A square has a side length of 4.5 cm. What is the area of the square in square metres?

0.002025

square metres



WRITE YOUR OWN ANSWER

QUESTION 5

Vito has 6 pairs of black socks, 2 pairs of white socks and 3 pairs of red socks in his drawer. He chooses a pair of socks without looking. Which of the following statements below is correct?

☐

Vito has an equal chance of choosing a red or a black pair of socks.

☐

Vito cannot choose a pair of white socks.

☒

Vito is likely to choose a black pair of socks.

☐

Vito is certain to choose a black pair of socks.

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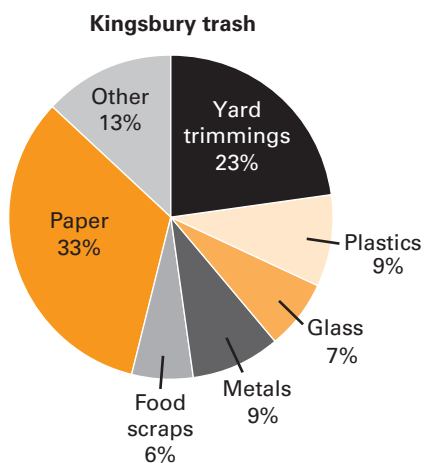


QUESTION 6

SHADE ONE BOX



The city of Kingsbury has the following information about recycling in its annual report. Which of the following statements is true?



- ☐ Yard trimmings and food scraps account for more than one quarter of the recycling.
- ☐ Plastics and yard trimmings account for more than $\frac{1}{3}$ of the recycling.
- ☐ Paper and 'other' account for more than half the recycling.
- ☐ Metals, food scraps and glass account for less than $\frac{1}{5}$ of the recycling.

QUESTION 7

SHADE ONE BOX



Which of the points below has the coordinates (2, 4)?



- ☐ A
- ☐ B
- ☐ C
- ☐ D

QUESTION 8

WRITE YOUR OWN ANSWER



George bought a plasma TV for \$2599. It was originally advertised for \$3050. What percentage discount of the original price did he receive? Write your answer to the nearest whole number.

15

%

QUESTION 9

SHADE ONE BOX

Charlotte catches the 4.03 p.m. train from Reservoir and, after transferring to a tram, arrives at her grandma's house in St Kilda at 5.17 p.m. How long did her journey take?

☐ 14 min

☐ 1 h 15 min

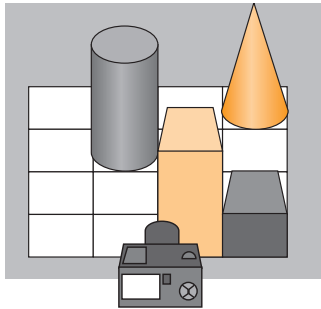
☒ 1 h 14 min

☐ 15 min

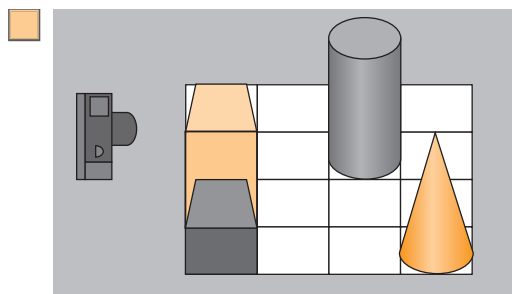
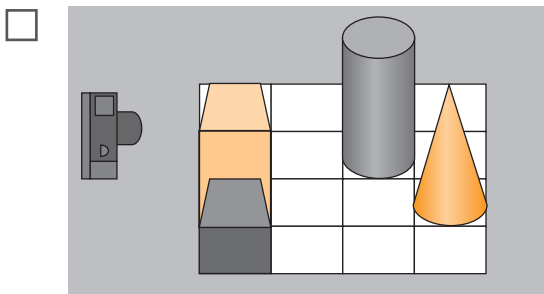
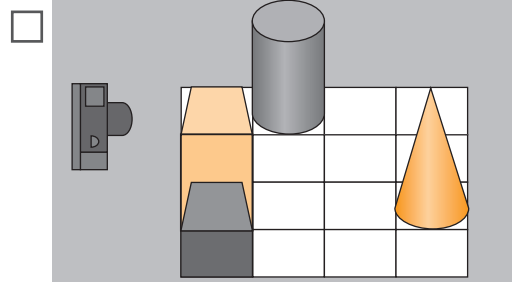
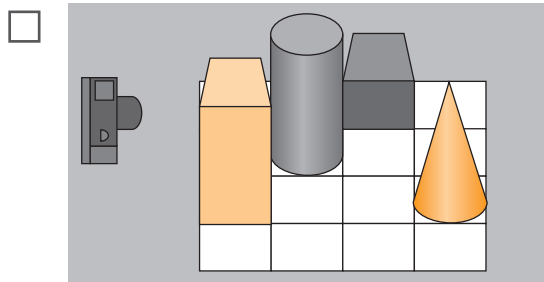
QUESTION 10

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A camera took a picture of some geometric solids as shown below. Notice the position of the camera.



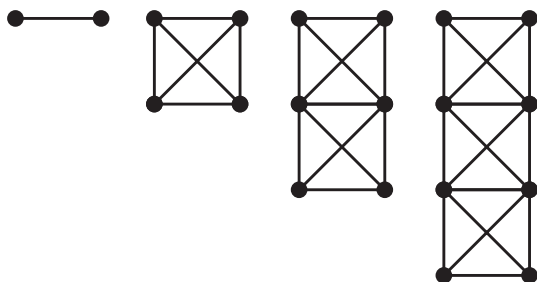
Which of the following images represents the arrangement of the solids taken from another viewpoint? Notice the camera has moved.



QUESTION 11

SHADE ONE BOX

Here are the first four terms of a dots-and-triangles pattern.



How many small triangles would there be in a pattern made with 12 dots?

☒ 20

☐ 16

☐ 24

☐ 18

QUESTION 12

What is the highest common factor of 24 and 30?

☐ 3

☐ 12

☒ 6

☐ 8

 SHADE ONE BOX
QUESTION 13

When 7.81 km is added to 6300 m, what is the result?

☐ 8.43 km

☐ 7.863 km

☒ 14.11 km

☐ 13.83 km

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QUESTION 14

Below is the bus timetable from Melbourne to La Trobe University.

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Bus stop	Time at bus stop (a.m.)							
Melbourne (Bourke/Queen)	6.40	6.58	7.10	7.35	7.45	7.54	8.05	8.16
Melbourne (Spring/Flinders)	6.46	7.04	7.16	7.41	7.52	8.01	8.12	8.23
Carlton	6.52	7.11	7.23	7.48	7.59	8.08	8.19	8.30
Fitzroy North	7.06	7.25	7.40	8.03	8.14	8.24	8.34	8.45
Preston	7.17	7.37	7.50	8.14	8.25	8.36	8.45	8.56
Reservoir	7.29	7.49	8.01	8.27	8.37	8.49	8.56	9.07
La Trobe University	7.36	7.57	8.09	8.35	8.46	8.57	9.05	9.15

Lynise must reach La Trobe no later than 9.00 a.m. What is the latest bus he can catch from Carlton?

☐ 8.19 a.m.

☒ 8.08 a.m.

☐ 8.24 a.m.

☐ 7.59 a.m.
QUESTION 15

A fair coin is tossed 100 times. Which of the following events is least likely to occur?

 SHADE ONE BOX

☐ Heads occurs exactly 22 times.

☐ Heads occurs exactly 70 times.

☐ Heads occurs exactly 54 times.

☒ Heads occurs exactly 89 times.
QUESTION 16

Write this number in decimal form.

$$6 \times 10 + 4 \times \frac{1}{10} + 9 \times \frac{1}{1000}$$

 WRITE YOUR OWN ANSWER
QUESTION 17

Work out the total cost of 3 m of fabric at \$12.95 per metre, a reel of cotton for \$2.45 and a zipper for \$19.95.

 WRITE YOUR OWN ANSWER

QUESTION 18

SHADE ONE BOX

Which one of these is equal to 2^3 ?

☐ 2×3

☐ 3×3

☒ $2 \times 2 \times 2$

☐ $2 + 2 + 2$

QUESTION 19

WRITE YOUR OWN ANSWER

Mannix sold small teddy bears to raise money for a children's charity. Each teddy bear was sold for \$5. The charity received 60c for each teddy bear sold. If Mannix raised \$90 for the charity, how many teddy bears did he sell?

150

teddy bears

QUESTION 20

WRITE YOUR OWN ANSWER

A tap leaks at a rate of 30 mL every 20 seconds. How much water is wasted in five minutes?

450

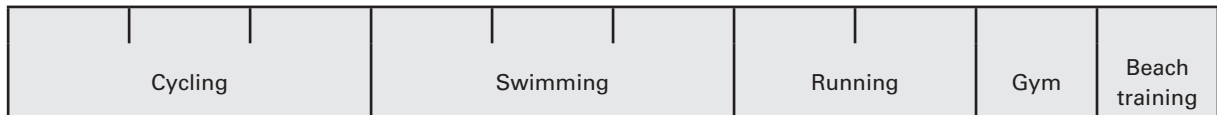
mL

QUESTION 21

SHADE ONE BOX



Jason is an athlete in training for a triathlon. He divides up his weekly training sessions as shown in the bar graph below.



If Jason spends 18 hours each week running, how long does he spend cycling?

☐ 12 h

☐ 15 h

☒ 27 h

☐ 30 h

QUESTION 22

WRITE YOUR OWN ANSWER

A kitchen floor is to be tiled. The area to be tiled is 3.5 m wide by 4 m long. The tiles to be used are 20 cm \times 35 cm. Each tile costs \$14.50. What is the total cost of the tiles?

\$2900

QUESTION 23

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$1^2 + 2^3 + 3^4 = ?$

☐ 20

☐ 36

☐ 82

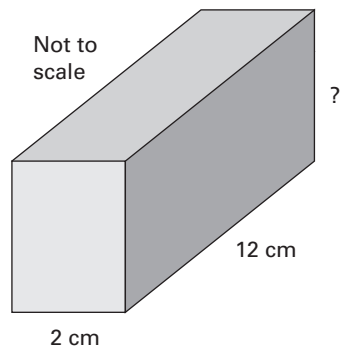
☒ 90

QUESTION 24

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The volume of this rectangular prism is 192 cm^3 .



What is the length of this rectangular prism?

☐ 6 cm☒ 8 cm☐ 12 cm☐ 14 cm**QUESTION 25**

SHADE ONE BOX



Look at the table below. The rule for this table is $\text{output} = 3 \times \text{input} + 5$.

Input	Output
5	20
10	?
15	50
20	65

What is the missing value in the table?

☐ 45☐ 40☒ 35☐ 30**QUESTION 26**

WRITE YOUR OWN ANSWER



The table shows the amount of time Tanya spent studying over five days.

Day	Time
Monday	25 min
Tuesday	40 min
Wednesday	48 min
Thursday	1 h
Friday	27 min

What was the average time Tanya spent studying?

minutes

**WRITE YOUR OWN ANSWER****QUESTION 27**

This year, 15476 people visited the aquarium. This is 1532 more people than last year. How many people visited the aquarium last year?

13944 people

QUESTION 28

Three students were asked to toss a coin 10 times. One of them thought it was a bit boring and decided to fake the results. Which of these results is most likely to be faked?

- ☐ T H H H T T H T H H
☐ T H T H H T H T H T
☐ T T T T H H T H T H
☒ T H T H T H T H T H

SHADE ONE BOX**QUESTION 29**

Which of the following drinks has the weakest mix of cordial?

- ☐ 120 mL water and 7 mL cordial
☒ 80 mL water and 3 mL cordial
☐ 100 mL water and 5 mL cordial
☐ 150 mL water and 6 mL cordial

SHADE ONE BOX**QUESTION 30**

About what fraction of Jo's height is her head?

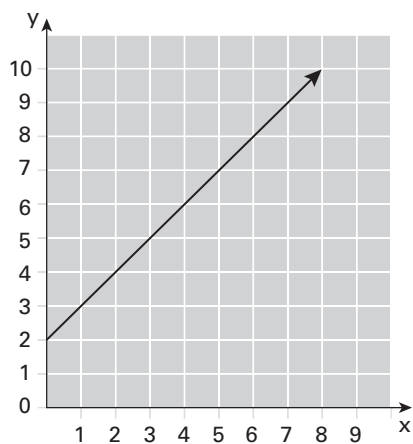
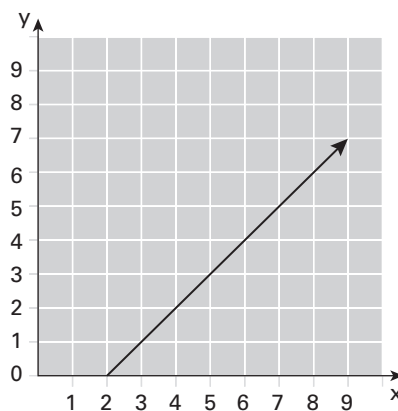
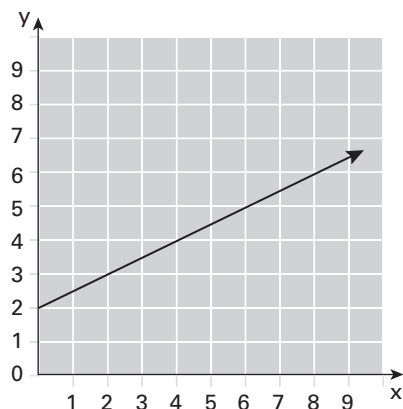
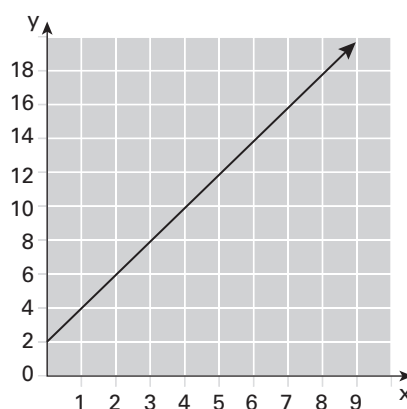
**SHADE ONE BOX**☐ one-eighth☒ one-sixth☐ one-tenth☐ one-fifth

QUESTION 31

SHADE ONE BOX



Which of the following is a graph of $y = 2x + 2$

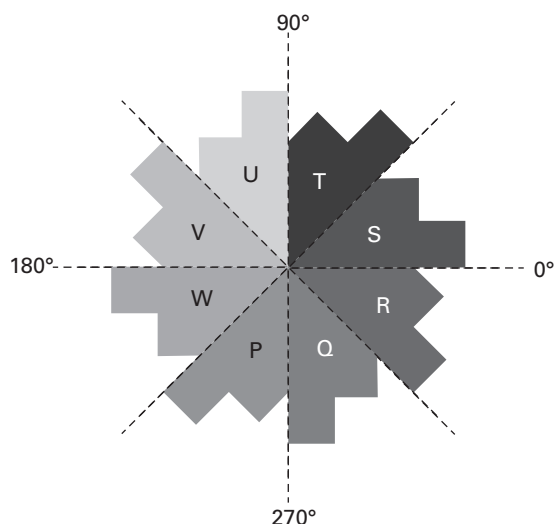
☐

☐

☐

☒


QUESTION 32

SHADE ONE BOX



What is the smallest angle and direction of turn to make P the image of S in the diagram below?


☒

135° anticlockwise

☐

135° clockwise

☐

225° anticlockwise

☐

225° clockwise