Cambridge Assessment International Education

Cambridge Primary Checkpoint

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER			

3714036265

MATHEMATICS **0096/01**

Paper 1 **April 2024**

45 minutes

You must answer on the question paper.

You will need: Compasses
Protractor
Tracing paper (optional)

INSTRUCTIONS

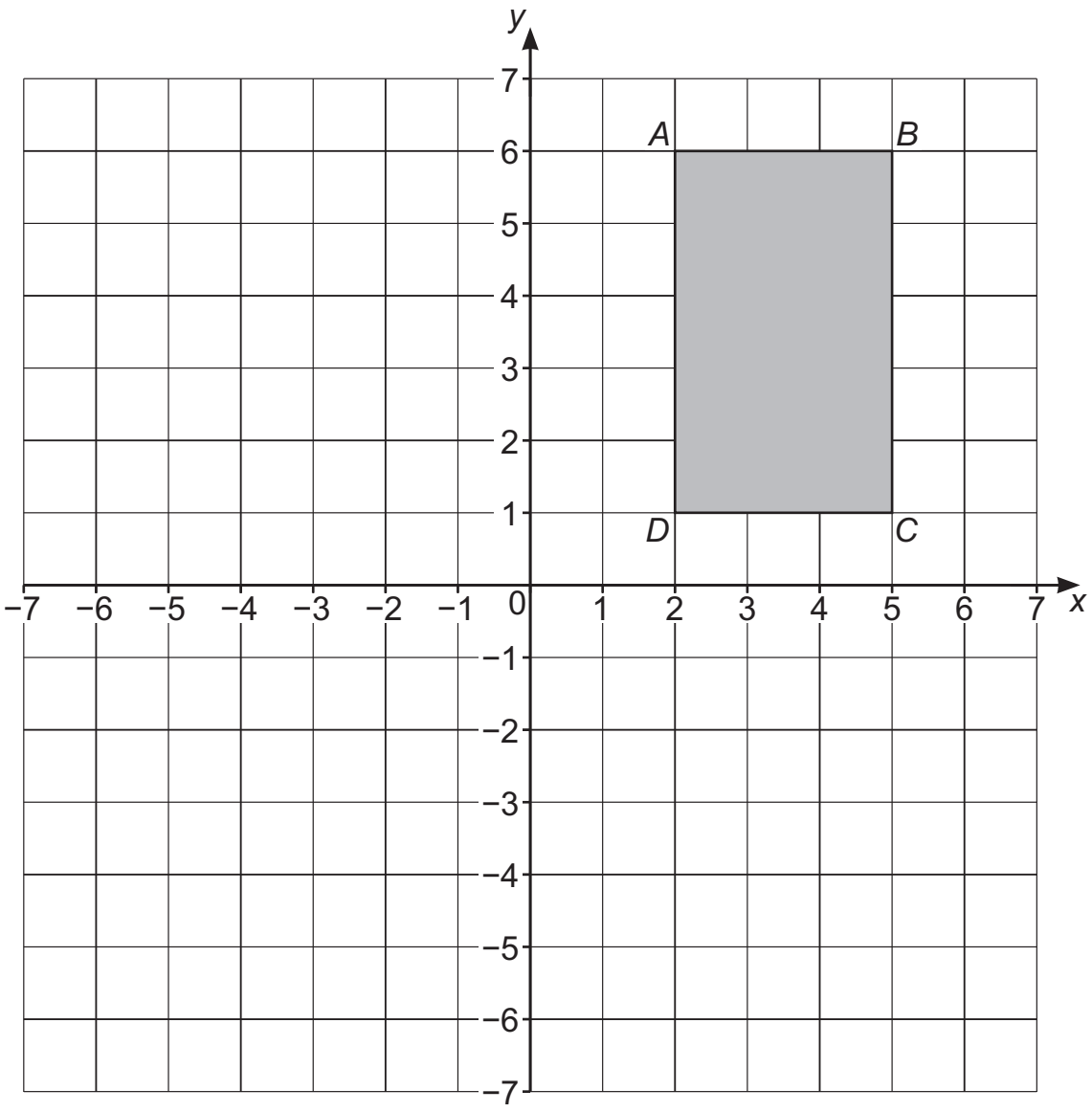
- Answer **all** questions.
- Use a black or dark blue pen. You may use an HB pencil for any diagrams or graphs.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction fluid.
- Do **not** write on any bar codes.
- You should show all your working in the booklet.
- You are **not** allowed to use a calculator.

INFORMATION

- The total mark for this paper is 40.
- The number of marks for each question or part question is shown in brackets [ ].

This document has **20** pages.

1 Oliver draws a rectangle on a coordinate grid.
He labels the vertices *A*, *B*, *C* and *D*.



Oliver translates the rectangle four squares down.

Write the new coordinates of *B*.

(..... , ...) [1]

2 Mia has a bar of chocolate.

She eats $\frac{3}{4}$ of the bar of chocolate.

Mia says, 'I have $\frac{3}{4}$ of my bar of chocolate left for later.'

Mia is **not** correct.

Explain how you know.

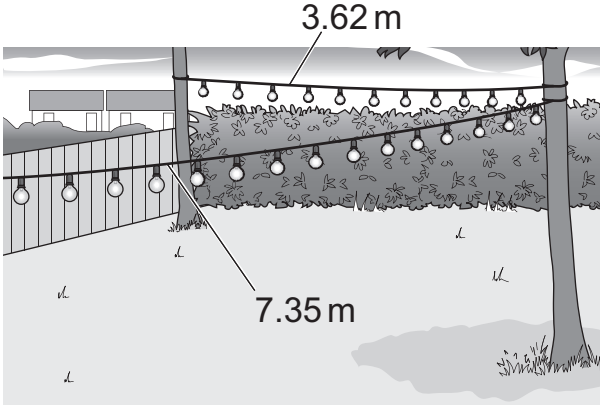
.....

.....

..... [1]

3 Angelique decorates her garden with two sets of lights.

One set of lights has a length of 7.35 metres.
The other set of lights has a length of 3.62 metres.



Calculate the **total** length of the two sets of lights.

..... metres [1]

4 Here is a number.

38.04

Multiply the number by 1000
Write the answer.

..... [1]

5 Here are four calculations.

360 ÷ 4	0.36 ÷ 4	36 ÷ 4	3.6 ÷ 4

Draw a ring around the calculation that is equivalent to 0.9 [1]

6 Calculate.

345 ÷ 15

..... [1]

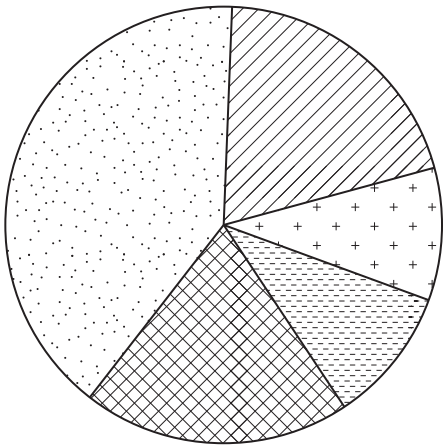
7 Rajiv records the vehicles that pass his house one morning.

Here are his results.

Vehicle	Number
cars	200
motorcycles	50
lorries	100
bicycles	50
vans	100

Rajiv records the results in a pie chart.

Complete the key for his pie chart.



Key	
	vans
	bicycles

[1]

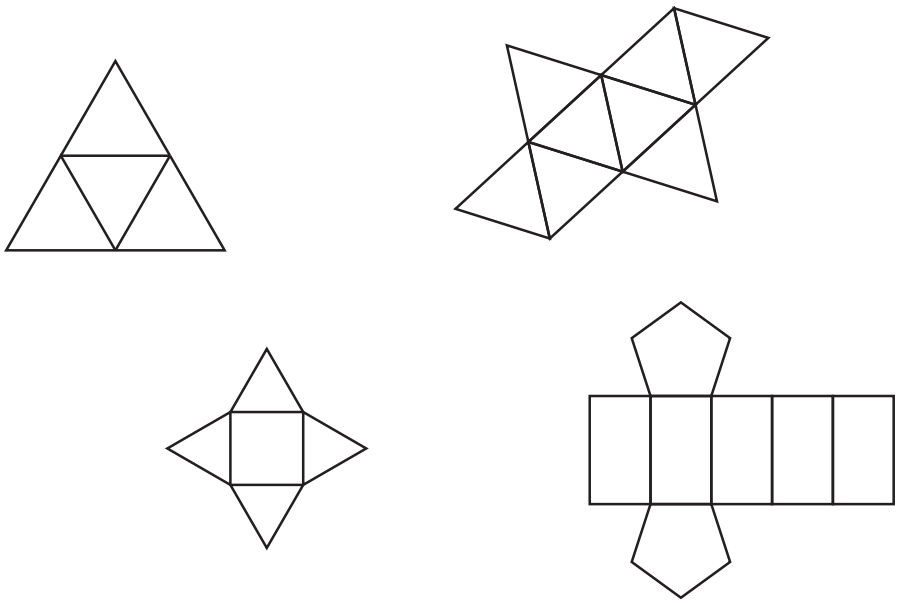
8 Pierre has 12 pieces of pizza.
Each piece is $\frac{1}{8}$ of a whole pizza.

Draw a ring around the **total** fraction of pizza Pierre has.

$\frac{4}{12}$ $\frac{8}{12}$ $1\frac{1}{4}$ $1\frac{1}{2}$ $1\frac{2}{3}$

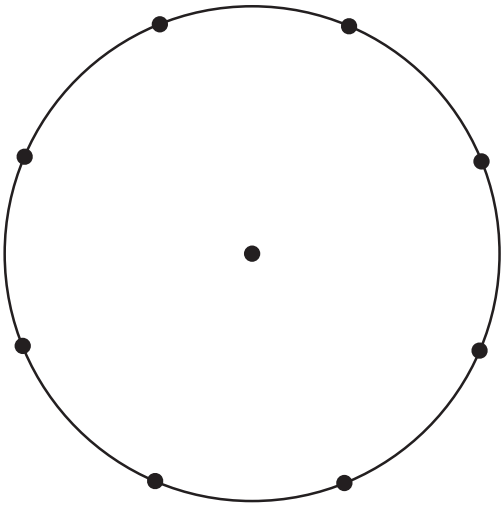
[1]

9 Here are the nets of some 3D shapes.



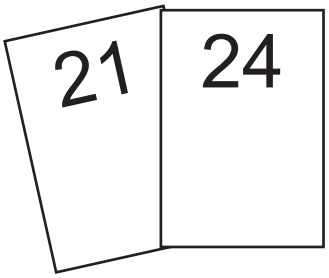
Draw a ring around the net of the prism. [1]

10 Here is a circle.
It has eight equally spaced dots around its edge and one in the centre.

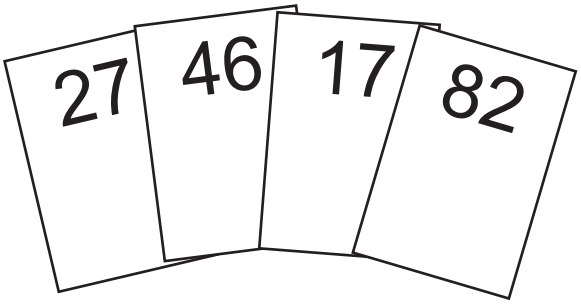


Join **three** dots to draw a right-angled triangle. [1]

11 Here are two sets of cards.



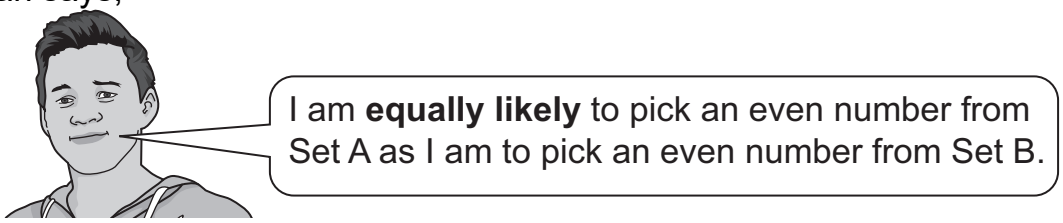
Set A



Set B

Hassan picks one card from each set at random.

Hassan says,



Tick (✓) to show if Hassan is correct.

Yes ☐ No ☐

Explain how you know.

.....

.....

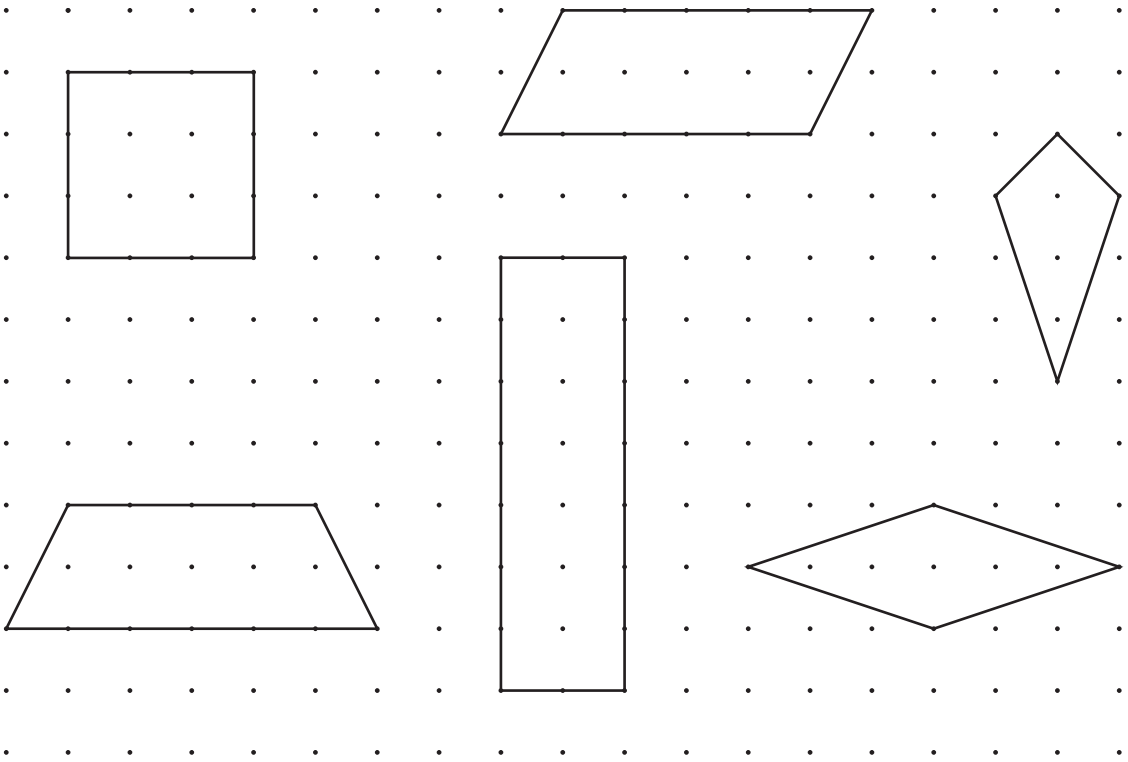
[1]

12 An aeroplane carries 269 passengers each day.

Calculate the total number of passengers the aeroplane carries in 28 days.

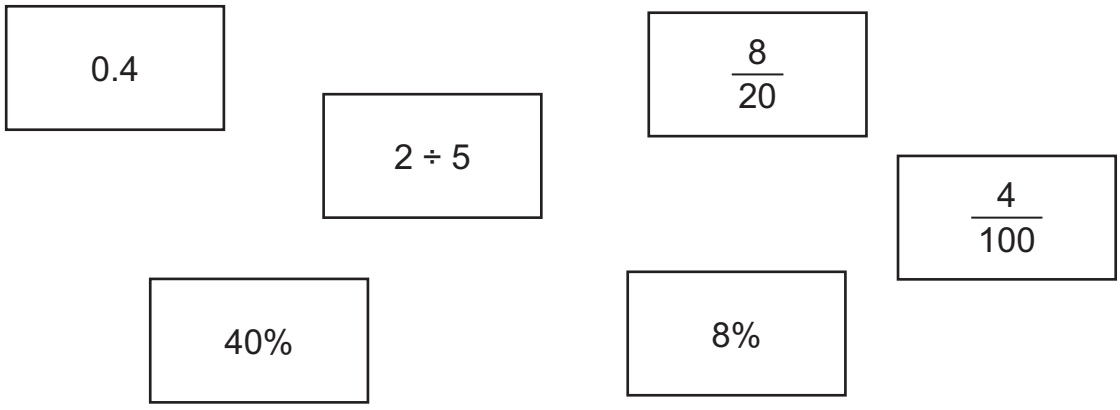
..... [1]

13 Here are some quadrilaterals drawn on a dotted grid of squares.



Draw a ring around **each** quadrilateral with rotational symmetry of order 2 [1]

14 Safia writes on some cards.

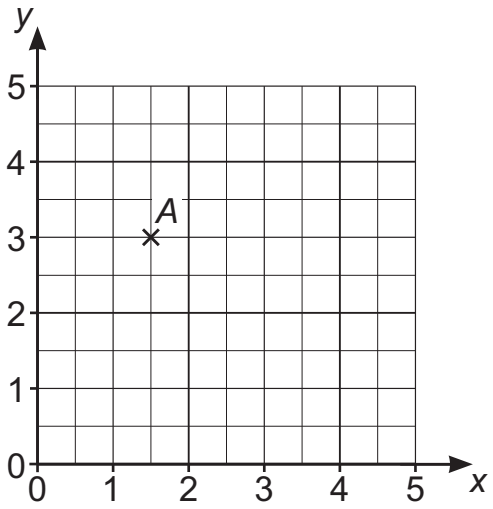


Draw a ring around **all** the cards that show equivalent values. [2]

15 Use a pair of compasses to draw a circle with a diameter of 6 centimetres.
The centre of the circle is marked.

[1]

16 Here is a coordinate grid.
Point *A* is marked on the grid.



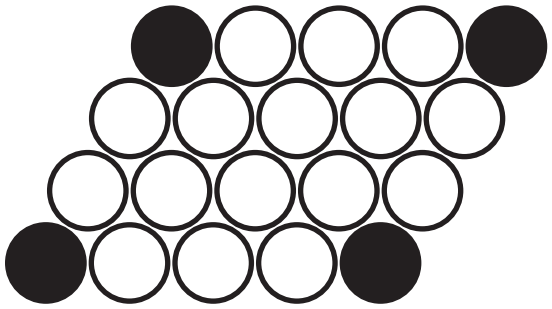
(a) Write the coordinates of point *A*.

(..... , ...) [1]

(b) Point *B* has the coordinates (4, 0.5).

Plot point *B* on the grid. [1]

17 Jamila makes a shape with black and white counters.



Write the percentage of the counters that are **white**.

..... % [1]

18 Youssef has a coin.
He flips the coin 4 times.

He records the outcome each time.
Here are his results.

heads
heads
tails
heads

Youssef thinks that the probability of getting a tail is 25%.

Youssef wants to improve his experiment.
He thinks of four different methods.

Tick (✓) the method that will produce the most reliable estimate of the probability of getting a tail.

☐ Do four more trials with a different coin.

☐ Do six more trials but flip the coin higher.

☐ Do eight more trials but ask someone else to flip it.

☐ Do ten more trials.

[1]

19 Write a number in the box to make the calculation correct.

$$\square - 12 = -20$$

[1]

20 Samira has 4 beads and 2 pots.
She puts the beads in the pots.
a represents the number of beads in one pot.
b represents the number of beads in the other pot.

Write **all** possible sets of values for *a* and *b*.

a = ... and *b* = ...

a = ... and *b* = ...

a = ... and *b* = ...

a = ... and *b* = ...

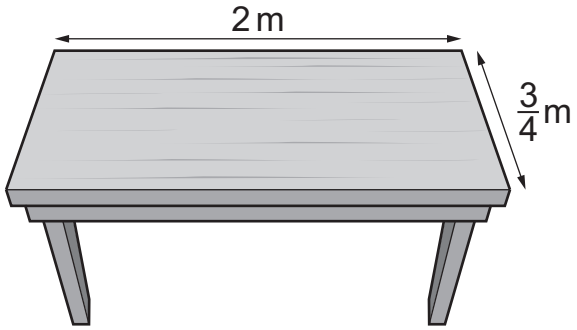
a = ... and *b* = ...

[2]

21 A table has a rectangular top.

The length of the top is 2 m. The width of the top is $\frac{3}{4}$ m.

Not drawn to scale



Calculate the area of the top of the table.

..... m^2 [1]

22 Carlos uses digit cards to make a four-digit number.
The number is divisible by 9

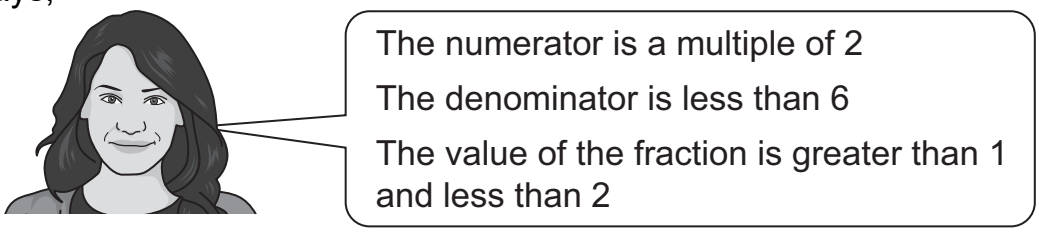
Write the missing digit in the box.

3	1	4	

[1]

23 Lily chooses an improper fraction.

She says,



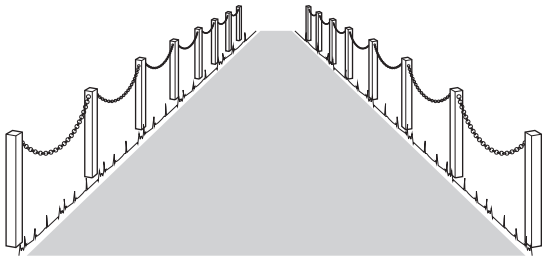
Write a fraction that Lily could choose.

$$\frac{\square}{\square}$$

[1]

24 Ahmed fixes chains between some posts.

The length of each chain is 1.8 metres.
He uses 14 chains.



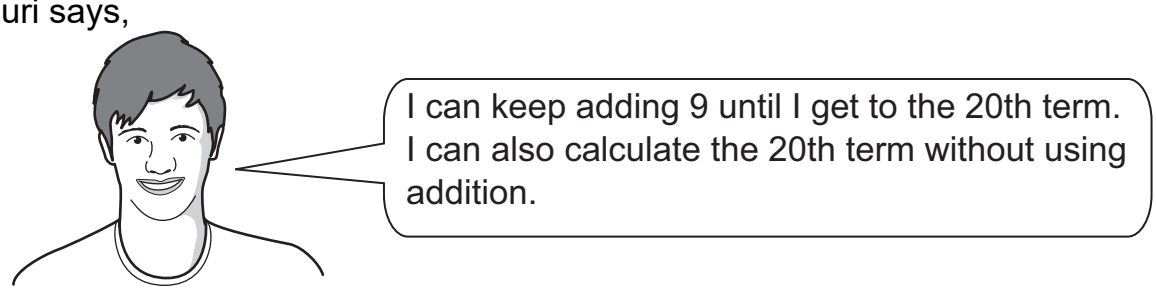
Calculate the total length of chain Ahmed uses.

..... metres [1]

25 Here are the first five terms in a number sequence.

9 18 27 36 45

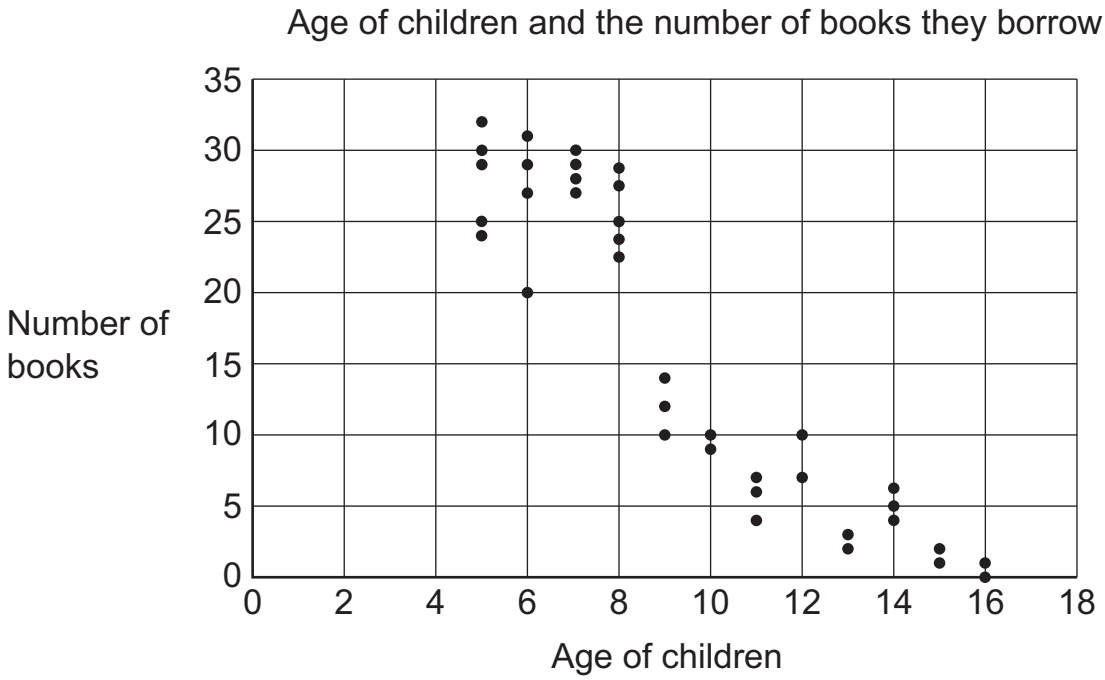
Yuri says,



Write a **calculation** to show how to calculate the 20th term in the sequence **without** using addition.

..... [1]

26 A library wants to know if older children borrow more books.
The library records the ages of the children and the number of books that they borrow in one month.
Here are the results.



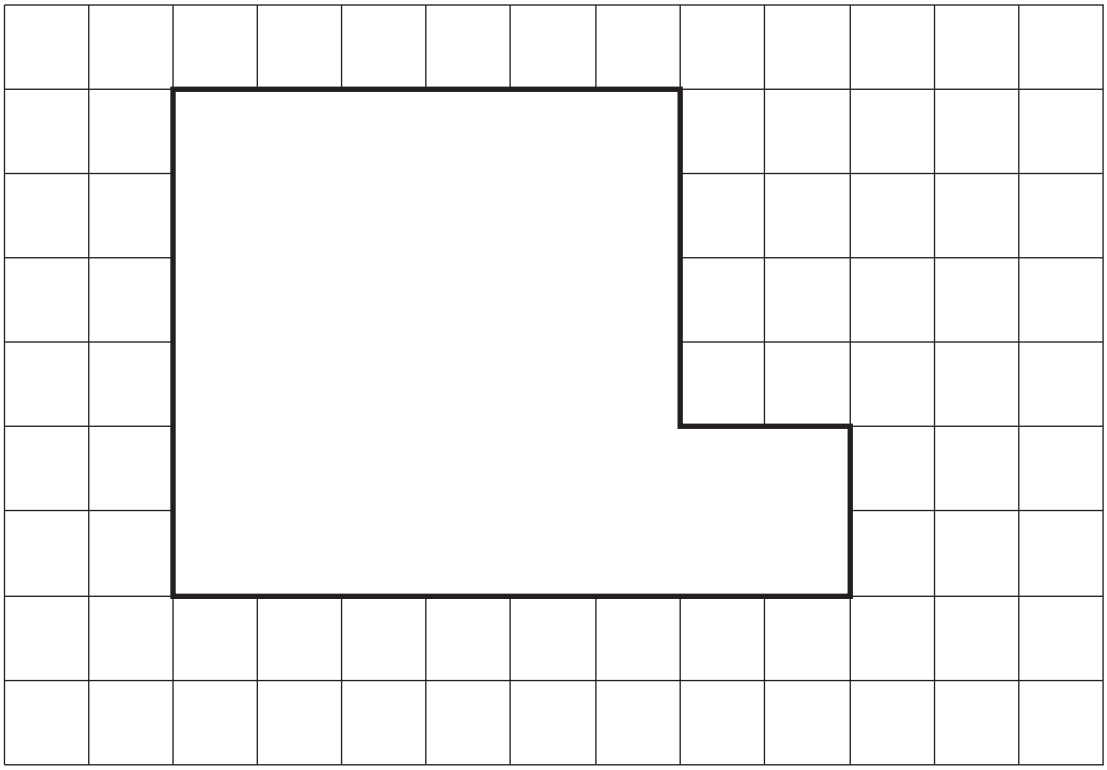
Tick (✓) to show whether the statements about the information in the graph are true or false.

	True	False
In general, as the age of the children increases, the number of books they borrow decreases.	☐	☐
Fourteen-year-olds borrow more books than thirteen-year-olds.	☐	☐
Two children each borrow 10 books.	☐	☐

[1]

27 Here is a shape drawn on a grid of squares.

The side of each square is 1 cm.



Not drawn to scale

Tick (✓) **all** the expressions that can be used to calculate the area of the shape in cm^2.

$6^2 + 2^2$ ☐

$6^2 - 2^2$ ☐

$6 \times 4 + 2 \times 4$ ☐

$6 \times 6 + 4$ ☐

$6 \times 4 + 4$ ☐

[1]

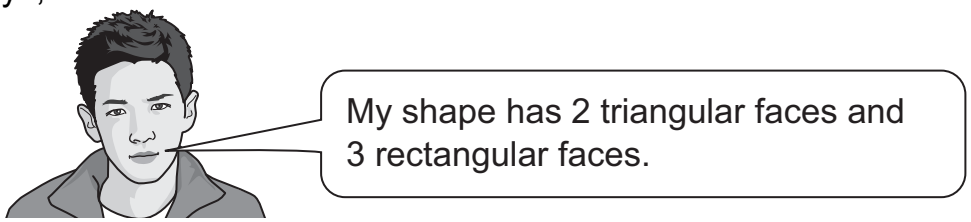
28 Write a number in each box to make this calculation correct.

$$\square \div 5 = 1\frac{2}{\square}$$

[1]

29 Chen chooses a 3D shape.

Chen says,

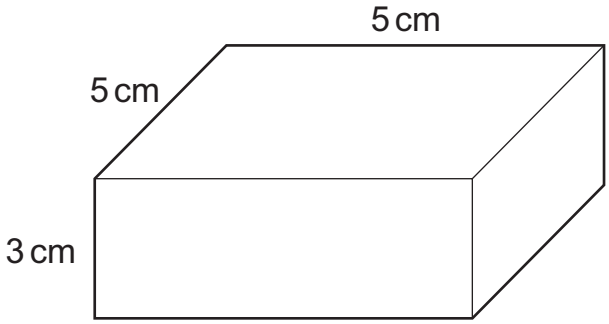


Sketch a shape that Chen could choose.

[1]

30 Anastasia has some rectangles and some squares.
She uses them to make a cuboid.

Not drawn to scale



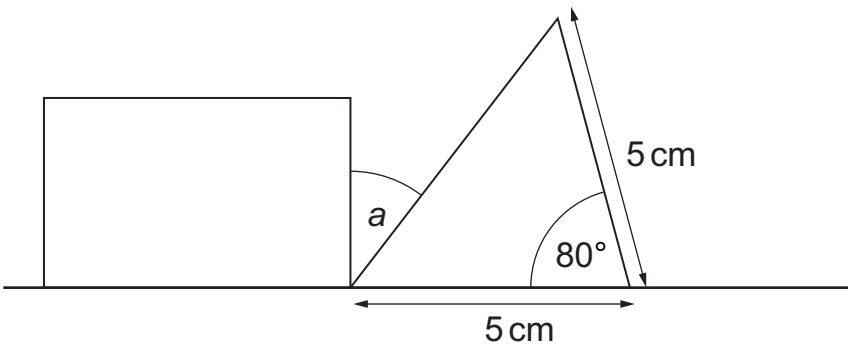
Each square has an area of 25 cm^2.
Each rectangle has an area of 15 cm^2.

Calculate the surface area of the cuboid.

..... cm^2 [2]

31 A rectangle and an isosceles triangle are on a straight line.

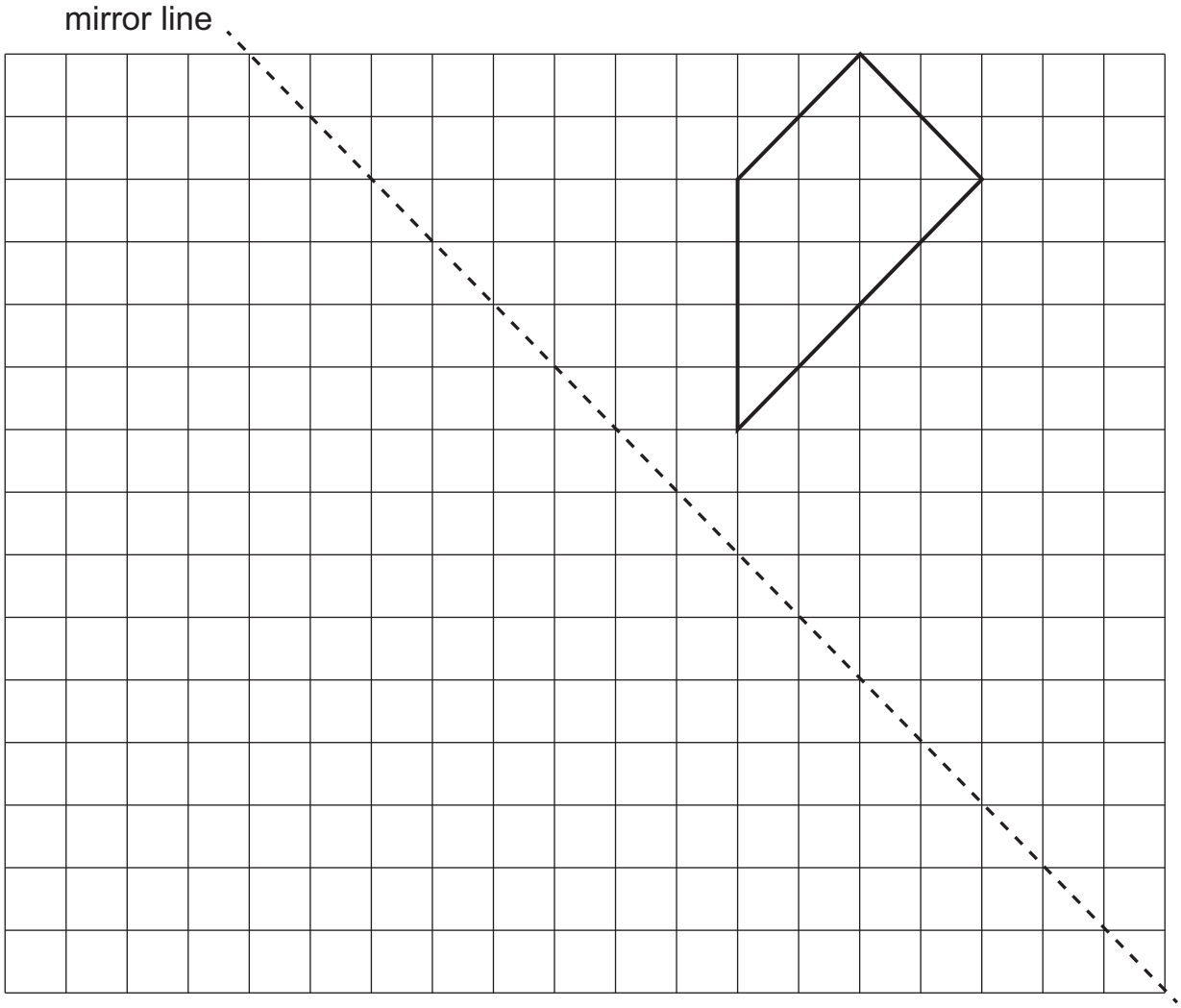
Not drawn to scale



Calculate the value of the angle marked *a*.

..... ° [1]

32 Here is a shape drawn on a grid of squares.



Draw the reflection of the shape in the mirror line. [1]

33 Write a number on each line so that the time intervals are equivalent.
One has been done for you.

1 hour	60 minutes		0.3 minutes	..... seconds
2.2 hours	..... minutes		1.75 minutes	..... seconds

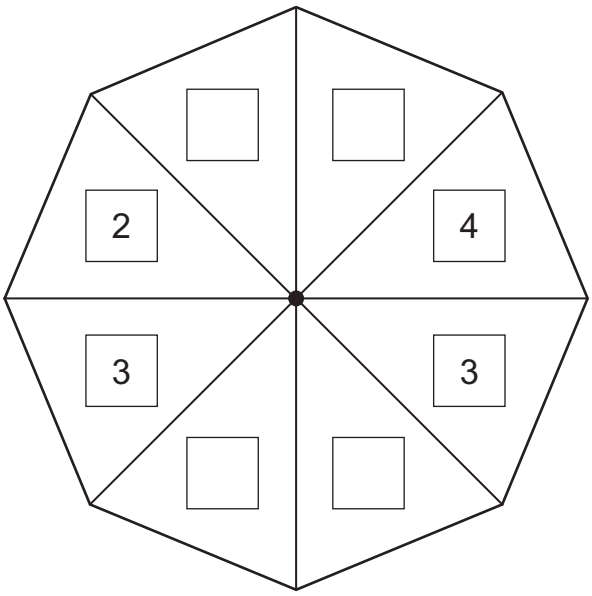
[2]

34 Gabriella makes a spinner using numbers less than 10

She spins the spinner 1000 times.

Her results show that

- the probability of a number 1 is 25%
- the probability of a number greater than 7 is 0%
- the probability of a number less than 5 is 75%
- the probability of an odd number is 50%.



Write a number in each empty box so that the spinner produces Gabriella's probability results. [2]