

Cambridge Assessment International Education Primary Checkpoint Mathematics Past Papers

**0862 – Question Paper
2023 - Now**

Cambridge Primary Checkpoint

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MATHEMATICS

0096/01

Paper 1

April 2023

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.
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- 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 **16** pages. Any blank pages are indicated.

1 Calculate.

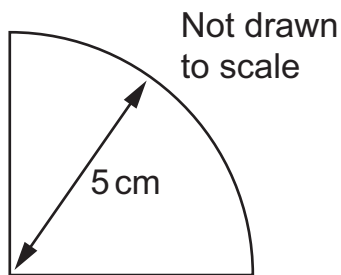
(a) $75 \times 5 \times 2 + 65$

..... [1]

(b) $8 + (3 + 2) \times 7$

..... [1]

2 Youssef folds a paper circle to make a new shape.



Write the length of the diameter of the circle.

..... cm [1]

3 Write 2.5 hours in minutes.

..... minutes [1]

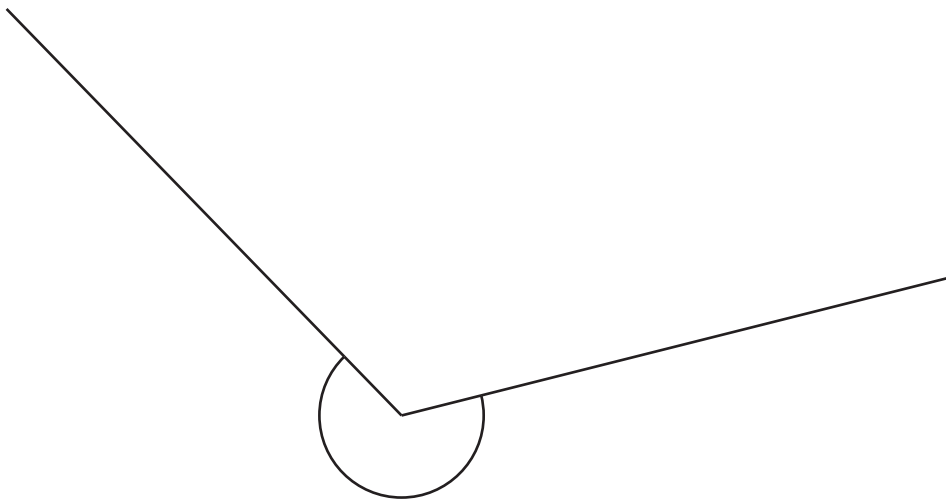
4 Complete the calculation.

$$\frac{1}{2} \div 3 = \boxed{}$$

[1]

5 Use a protractor to measure the size of the marked angle.

Write the answer.



.....° [1]

6 (a) Here is a list of numbers.

1 3 7 11 13 17 21 23 27

Draw a ring around a common **multiple** of 3 and 7

[1]

(b) Here is a list of numbers.

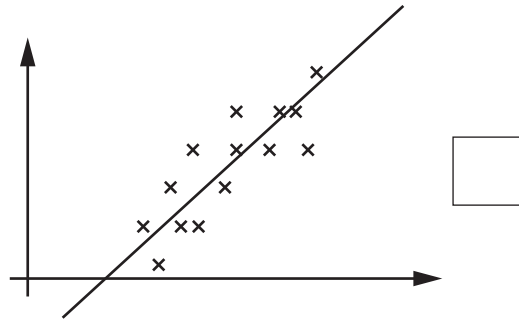
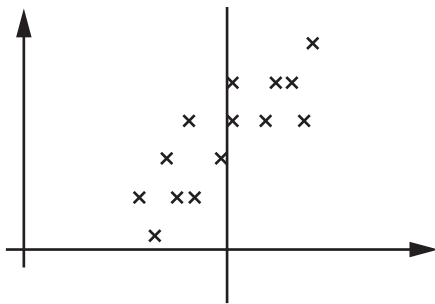
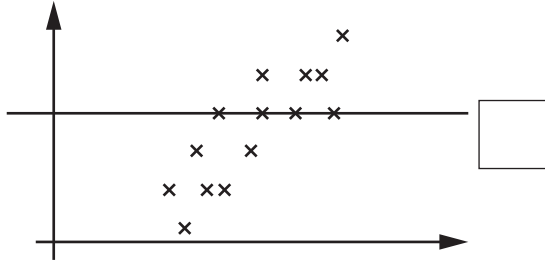
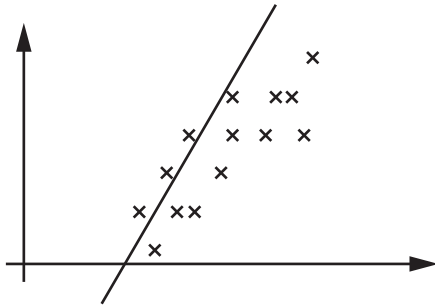
2 4 6 22 24 26 32 34 36

Draw a ring around a common **factor** of 4 and 6

[1]

7 Anastasia draws a line of best fit on a scatter graph.

(a) Tick (✓) the graph with the correct line of best fit.



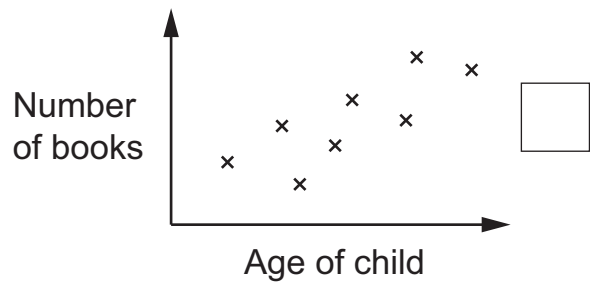
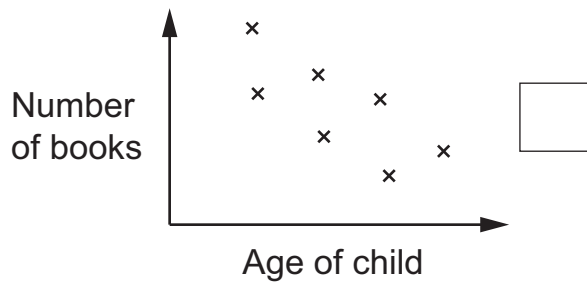
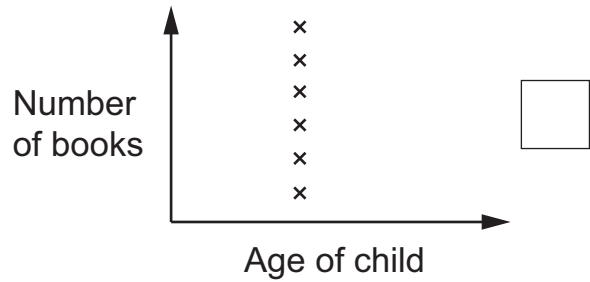
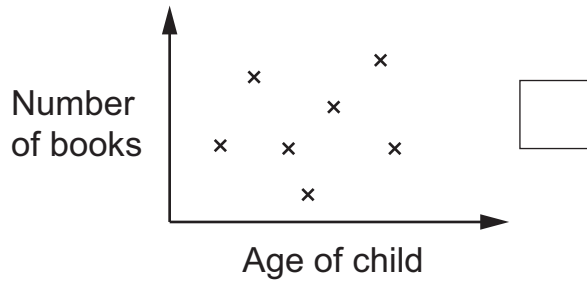
[1]

(b) Jamila draws a different scatter graph.

She plots the age of each child in her class against the number of books they read.

She thinks there is **not** a connection between age and the number of books each child reads.

Tick (✓) the scatter graph that supports Jamila's idea.



[1]

8 Here are two negative numbers.

-25

-10

Add the two numbers.

Write the answer.

..... [1]

9 Calculate.

(a) $\frac{2}{3}$ of 18

..... [1]

(b) $\frac{3}{2}$ of 24

..... [1]

10 Complete.

(a) $141.56 + 13.213 =$

[1]

(b) $17.512 -$ $= 4.3$

[1]

11 Here are six number cards.

10	100	1000
10	100	1000

Use **three** cards to complete the statement.

$$6.2 \div \boxed{} \div \boxed{} = 6.2 \times 10 \div \boxed{}$$

[1]

12 Pierre wants to produce a representation of his data.

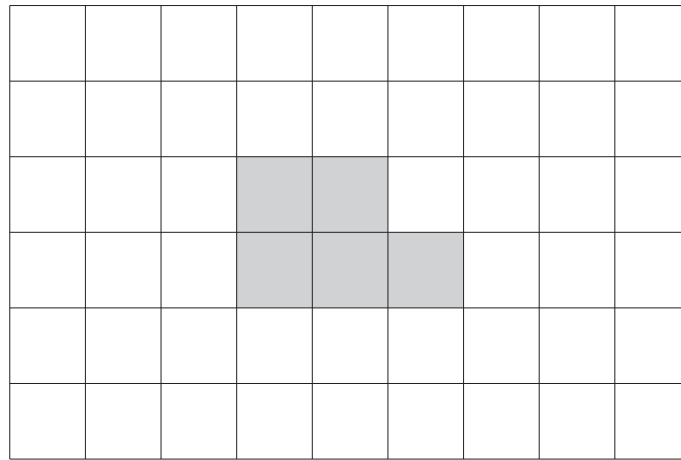
Draw a line to match the data to the correct representation.

Number of plants in gardens	
Heights of people	bar chart
Number of cars in car parks	
Colour of cars in car parks	frequency diagram
Length of people's feet	

[2]

13 Shade the **smallest** number of squares to create a shape that has

- rotational symmetry of order 2
- no lines of symmetry.



[1]

14 Eva and Lily each have some flowers.

The number of flowers that Eva has is represented by the letter A.

The number of flowers that Lily has is represented by the letter B.

Eva has more flowers than Lily.

They have 20 flowers altogether.

Tick (✓) all the correct pairs of numbers.

A	B	
17	3	☐
14	12	☐
24	-4	☐
11	9	☐
8	12	☐

[2]

- 15** Write the calculations in order of the size of the answer.
Start with the **smallest**.

123×70

1234×7

12×700

.....
smallest

.....

.....
largest

[1]

- 16** Hassan draws a straight line joining the points (1, 2) and (9, 2).

Draw a ring around **all** the points that are on his line.

(2, 1)

(7, 2)

(2, 2)

(8, 2)

(2, 6)

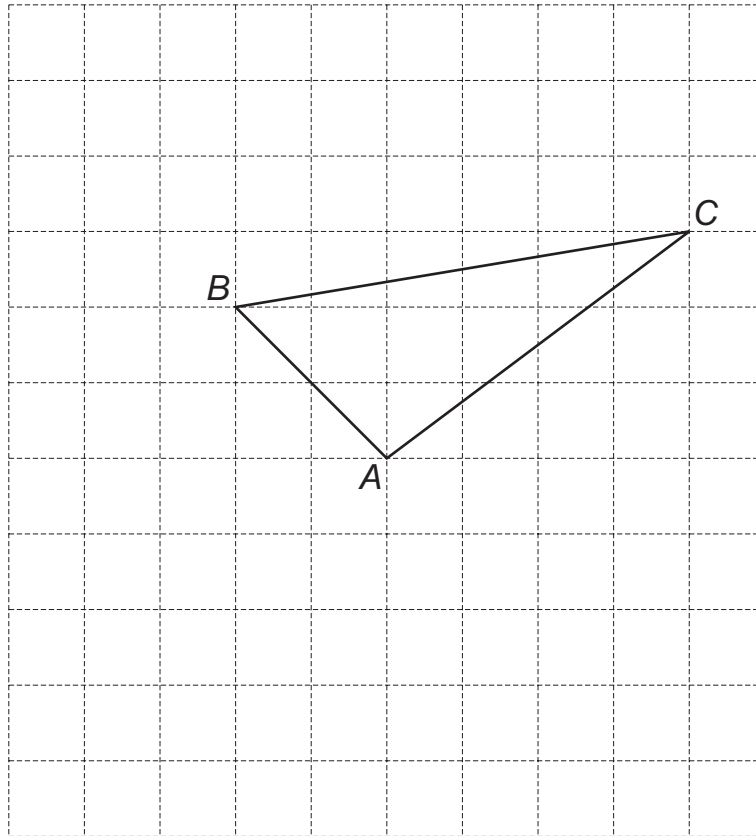
[1]

- 17** Safia starts at 52 and counts backwards in sevens.
Mia starts at -10 and counts forwards in nines.

Write the number that they both say.

..... [1]

18 Here is a grid of squares.



Rotate the triangle 90° **anticlockwise** about point A.

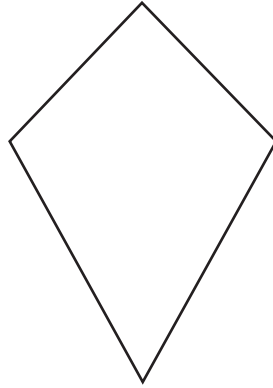
[2]

19 Calculate.

$$32.723 + \frac{60}{1000}$$

..... [1]

20 Here is a diagram of a kite.



Tick (✓) **all** of the correct statements.

This kite can be made with

2 identical scalene triangles

☐

2 identical equilateral triangles

☐

2 different isosceles triangles

☐

2 different equilateral triangles

☐

[1]

21 Give an example of a data collection that is best represented by a line graph.

.....

..... [1]

22 Naomi thinks of a number.

The number rounds **up** when rounded to the nearest tenth.

The number rounds **down** when rounded to the nearest whole number.

Complete Naomi's number.

3	.		
---	---	--	--

[1]

23 Here is part of a sequence.

.....	1.6	.....	0.4	.....
	2nd term		6th term	

The sequence is made by subtracting a constant amount from the previous term.

Write the 8th term.

Show your working.

..... [2]

24 Yuri uses a computer to model the roll of **two** dice 1000 times.
He records the results when the computer program rolls a 6 on either dice.
Here are his results.

Number on one dice	Number on other dice	Frequency
6	1	56
6	2	57
6	3	57
6	4	58
6	5	59
6	6	28

(a) Yuri adds the numbers on his two dice.

Complete the sentence.

When Yuri rolls a 6 the **total** on the dice that occurs least often is [1]

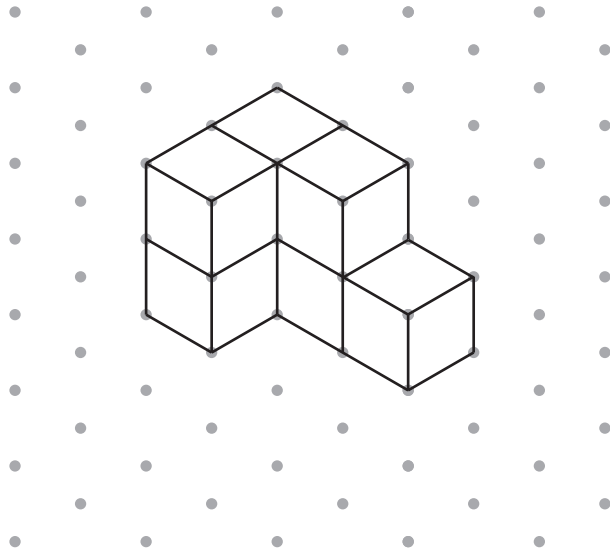
(b) Yuri uses this data to predict the likelihood of rolling a 1 on **both** dice.

Draw a ring around the word that correctly describes this likelihood.

impossible unlikely even chance likely certain

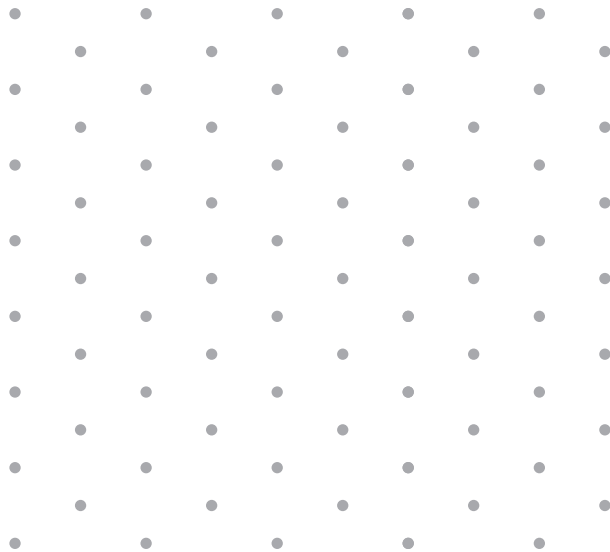
[1]

- 25** Here is a drawing of a shape on isometric paper.
The shape is made of seven cubes joined together.



Angelique draws another shape.
She joins the two shapes to make the smallest cuboid that she can.

Draw **Angelique's** shape.



[2]

- 26** Chen has four digit cards.
He says,

'All the numbers I could make with my four cards are 4-digit numbers that are divisible by 6'

Write four numbers that Chen could have on his cards.

--	--	--	--

[1]

- 27** Rajiv and Carlos each choose a set of three prime numbers.
The total of each set of numbers is 30

(a) Write three numbers that Rajiv could choose.

.....

[1]

(b) Write the number that both Rajiv and Carlos **must** have in their set.

.....

Explain your answer.

.....

.....

..... [1]

28 Here are six digit cards.

1	3	5	6	7	8
---	---	---	---	---	---

Use the digit cards to write the calculation with the largest even answer.

			-				= largest even answer
--	--	--	---	--	--	--	-----------------------

[1]

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MATHEMATICS

0096/02

Paper 2

April 2023

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.
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- 1** Write the numbers in order of size, starting with the smallest.

4.36

4.70

4.03

4.63

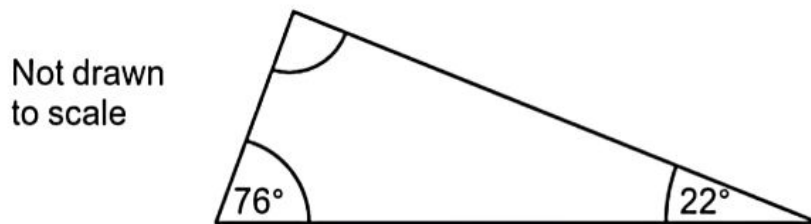
4.07

smallest

largest

[1]

- 2** Calculate the size of the missing angle.



..... ° [1]

- 3** Draw a ring around all the fractions that are **less** than 50%.

$$\frac{3}{10}$$
$$\frac{6}{100}$$
$$\frac{7}{10}$$
$$\frac{60}{100}$$
$$\frac{40}{100}$$

[1]

- 4 Two equilateral triangles are joined to make a quadrilateral.

Write the name of the shape.

..... [1]

- 5 Here is a table showing the position and the terms of a sequence.

Complete the table.

Position	Term
1	7
2	14
3	21
10	.....
15	.....
.....	350

[2]

- 6 Add together the 3rd square number and the 5th square number.

..... [1]

7 Jamila collects the spelling test results of girls in her class.

Here is her data.

Girls' spelling test results

23	17	11	21	18	24
5	23	10	20	26	19
26	21	21	19	17	21

(a) Calculate the mean test result for the girls.

..... [1]

(b) Jamila starts to organise her data in a frequency table.

Complete her table.

Girls' results	Tally	Frequency
1–5	/	1
6–10		
11–15	/	1
16–20		
21–25		
26–30	//	2

[1]

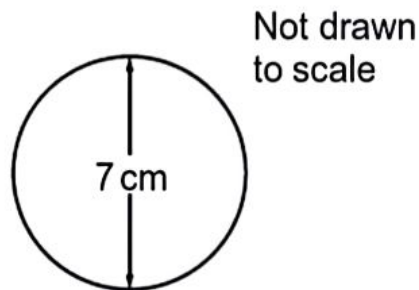
8 Write each fraction in its simplest form.

$$\frac{6}{30} = \dots\dots\dots$$

$$4\frac{8}{20} = \dots\dots\dots$$

[2]

9 Here is a sketch of a circle.



Draw the circle accurately.
Use a pair of compasses.

10 Samira writes,

$$35 - 20 \div 5 = 3$$

Samira has made an error.

Explain her error.

.....
 [1]

11 Here are the numbers of people waiting at six bus stops.

2 7 7 3 6 4

Write the median number of people waiting at the bus stops.

..... [1]

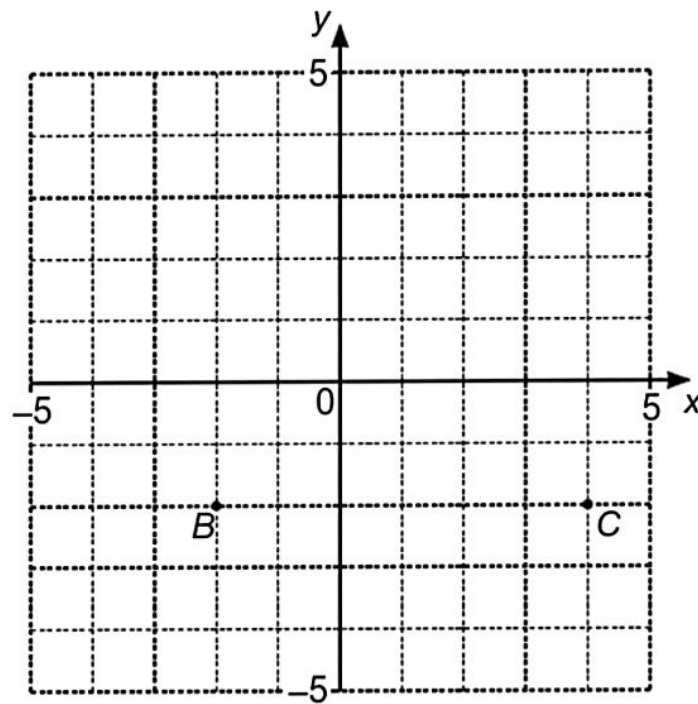
12 A ball of string is 600 cm long.

Gabriella uses 120 cm of the string.

Write the percentage of the string that Gabriella uses.

..... % [1]

13 Here is a coordinate grid.



(a) Plot the point $A(-2, 3)$.

[1]

(b) Points B and C are joined to make a straight line.

Write the coordinates of the point on the line that is halfway between B and C .

(..... ,) [1]

14 Draw a line to match each division to the correct fraction.

$$5 \div 4$$

$$8 \div 5$$

$$4 \div 8$$

$$\frac{1}{2}$$

$$1\frac{1}{4}$$

$$\frac{4}{5}$$

$$\frac{8}{4}$$

$$1\frac{1}{5}$$

$$\frac{8}{5}$$

[2]

- 15 Yuri wants to make a necklace.
For every three white beads he uses one black bead.

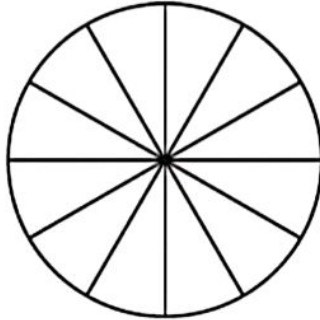


He continues the pattern in the same way.
The completed necklace has 30 beads.
The ratio of white to black beads is **not** 3 : 1

Explain.

.....
..... [1]

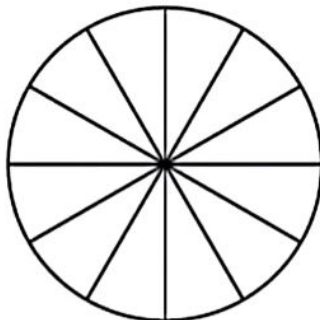
16 (a) Here is a spinner with 12 equal sections.



Shade the spinner so that there is a 5 out of 6 chance of spinning white.

[1]

(b) Here is a different spinner with 12 equal sections.



Mia colours the whole spinner using only yellow, red and blue.
She colours **two** sections yellow.
There is a 25% chance of spinning blue.

Write the chance of spinning red.

..... out of chance [1]

17 Draw a line to match **all** the pairs of equivalent values.

60%

$$\frac{1}{4}$$

0.25

$$\frac{4}{5}$$

80%

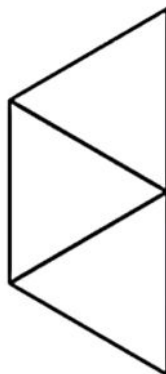
$$\frac{3}{5}$$

$$\frac{6}{100}$$

0.06

[2]

18 Complete the net of the triangular based pyramid.



[11]

19 Carlos has some photo frames.



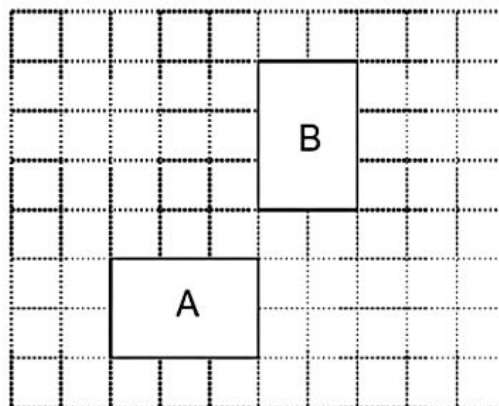
He measures the sides of each frame and records their perimeters in centimetres. The lengths of **all** the sides are whole numbers.

Tick (✓) the boxes in the table that could be correct.

Perimeter (cm)	Rectangular frame	Square frame
50	☐	☐
36	☐	☐
45	☐	☐
28	☐	☐

[2]

20 Chen tries to translate rectangle A. His answer is rectangle B.



Chen has made an error.

Explain how you know.

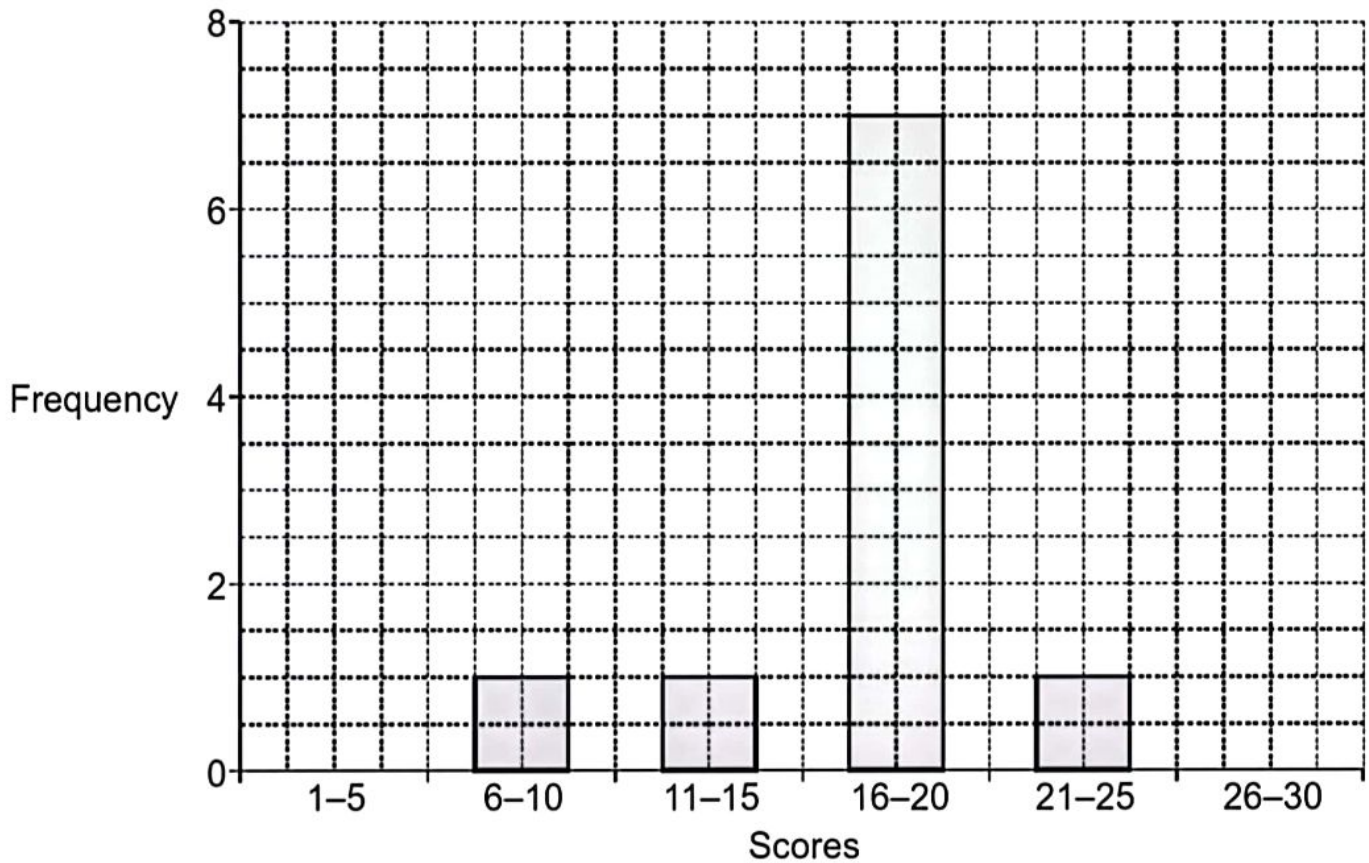
.....

..... [1]

- 21 Class 6 complete a science test.
Ahmed collects all the results.

Here is the data for the boys' test results.

Boys' science test results



Here is the data for the girls' test results.

Girls' test results	Frequency
1-5	2
6-10	5
11-15	6
16-20	1
21-25	7
26-30	1

Ahmed compares the results for the boys and the girls.

(a) Here are some words.

boy

boys

girl

girls

Use some of these words to complete the sentences.

The range of marks is greater for the

More than scored from 11 to 20

The highest mark was scored by a

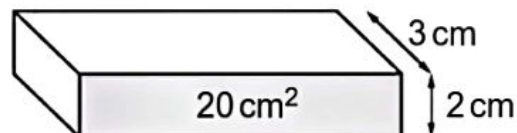
The lowest mark was scored by a [2]

(b) Look at the data for the boys and girls.
Identify a problem with Ahmed's investigation.

.....
..... [1]

22 Here is a cuboid.

Not drawn
to scale



Calculate the surface area of the cuboid.
Show your working.

..... cm² [2]

23 (a) Mike adds $\frac{2}{3}$ and $\frac{1}{4}$

He writes $1\frac{1}{12}$ as the answer.

Without adding $\frac{2}{3}$ and $\frac{1}{4}$ explain how you know Mike is wrong.

..... [1]

(b) Eva adds $\frac{2}{5}$ and $\frac{1}{6}$

She writes $\frac{7}{11}$ as the answer.

Without adding $\frac{2}{5}$ and $\frac{1}{6}$ explain how you know Eva is wrong.

..... [1]

24 6 oranges cost the same as 4 melons.
3 apples cost the same as 2 oranges.
A melon costs \$3

Calculate the cost of 12 apples.
Show your working.

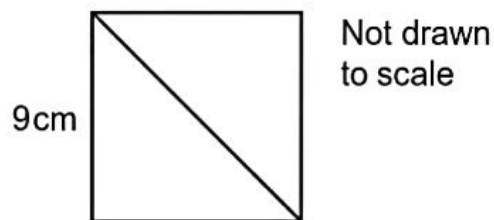
\$ [2]

- 25 Oliver and Pierre both choose the **same** number less than 100
 Oliver divides the number by 7 and the remainder is 6
 Pierre divides the number by 5 and the remainder is 3

Write the largest number they can choose.

..... [1]

- 26 Here is a square made of two triangles.



The length of one side of the square is 9 cm.

Calculate the area of **one** of the triangles.

..... cm² [2]

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MATHEMATICS

Paper 1

0096/01

October 2023

45 minutes

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- 1 Round 3.47 to the nearest whole number.

..... **3** [1]

- 2 Calculate.

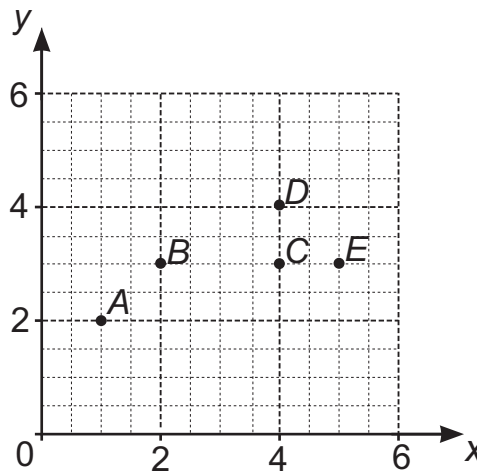
$$\frac{5}{2} \text{ lots of } 8$$

..... **20** [1]

- 3 Write the fraction $\frac{15}{25}$ in its simplest form.

..... **$\frac{3}{5}$** [1]

- 4 Here are some points marked on a coordinate grid.



Write the letters of **all** the points that are closer to the x-axis than they are to the y-axis.

..... **C, E** [1]

5 Complete these statements.

$$-16 - 5 = \boxed{-21}$$

$$-16 + 5 = \boxed{-11}$$

[1]

6 Use a protractor and ruler to draw an angle of 135°

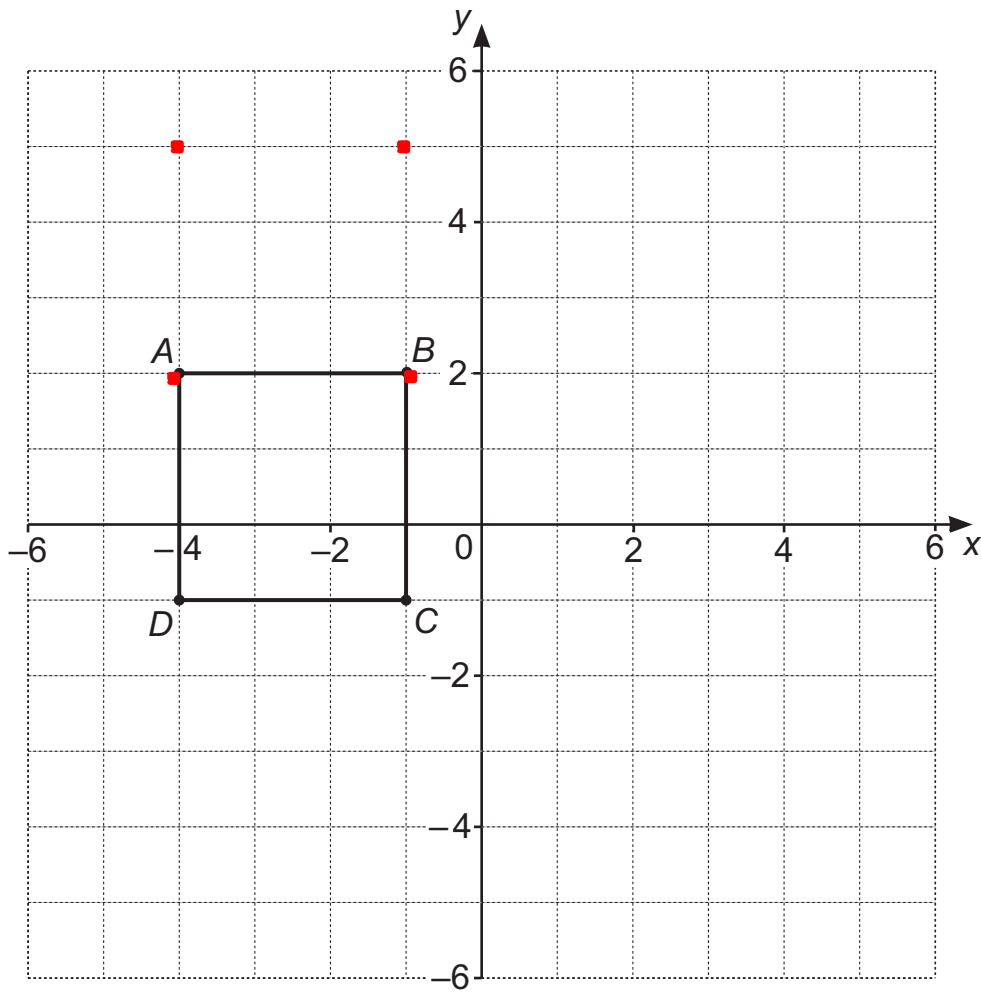
[1]

7 Write three **different** prime numbers in the boxes to complete the statement.

$$\boxed{13} + \boxed{7} + \boxed{3} = 23$$

[1]

- 8 Here is a square drawn on a coordinate grid.



The square is translated.
The new coordinates of point D are $(-4, 2)$.

Write the **new** coordinates of point B .

(-1 , 5) [1]

- 9 Draw a ring around **all** the calculations that are equivalent to $6 \times 25 \times 2 + 7$

$3 \times 50 + 7$

$7 + 50 \times 6$

$100 \times 3 + 7$

$6 \times 25 \times 9$

[1]

$$\begin{array}{r} 6 \\ \times 25 \\ \hline 150 \end{array}$$

$$\begin{array}{r} 300 \\ + 7 \\ \hline 307 \end{array}$$

10 Here are four calculations.

$$17.2 \times 4$$

$$17.09 \times 4$$

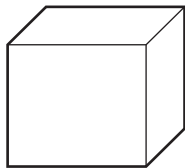
$$1.72 \times 39$$

$$1.7 \times 39$$

Draw a ring around the calculation that gives the **largest** answer.
You do not need to work out the answers.

[1]

11 Here is a sketch of a cube.



Not drawn to scale

The area of one face is 9 cm^2 .

Calculate the total surface area of the cube.

..... cm^2 [1]

12 Here is a set of angles.

100°

90°

65°

45°

35°

Draw a ring around the **three** angles that add together to make a straight line. [1]

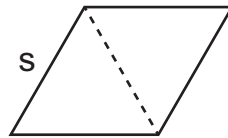
13 The perimeter, p , of an equilateral triangle with side length, s , is written as

$$p = s + s + s$$

(a) Find the value of p if $s = 12$ cm.

..... cm [1]

(b) Two **identical** equilateral triangles are joined together to make a new shape.



Draw a ring around the correct expression for the perimeter, d , of the new shape.

$$d = s + s + s$$

$$d = s + s + s + s$$

$$d = s + s + s + s + s$$

$$d = s + s + s + s + s + s$$

[1]

14 Here are four digit cards.

3

4

5

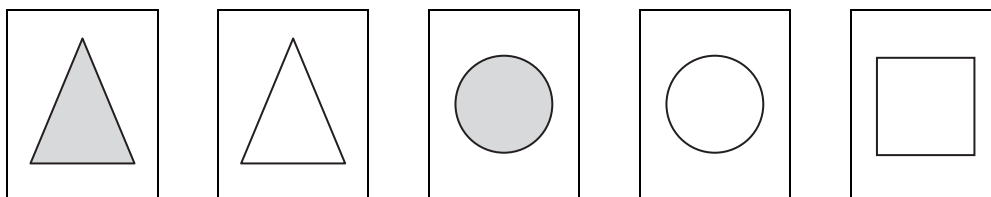
6

Use **all** four digit cards to complete the boxes to create the calculation with the **smallest** possible whole number answer.

$$\square \square \square \div \square =$$

[1]

15 Here are five cards with a white or grey shape drawn on them.



(a) Mia picks **one** card at random.

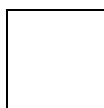
The letters **A**, **B** and **C** describe three different events.

A Mia picks a card with a grey shape.

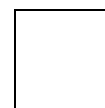
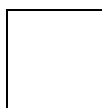
B Mia picks a card with a white shape.

C Mia picks a card with a square.

Write the events **A**, **B** and **C** in order of probability, starting with the lowest.



lowest probability



highest probability

[1]

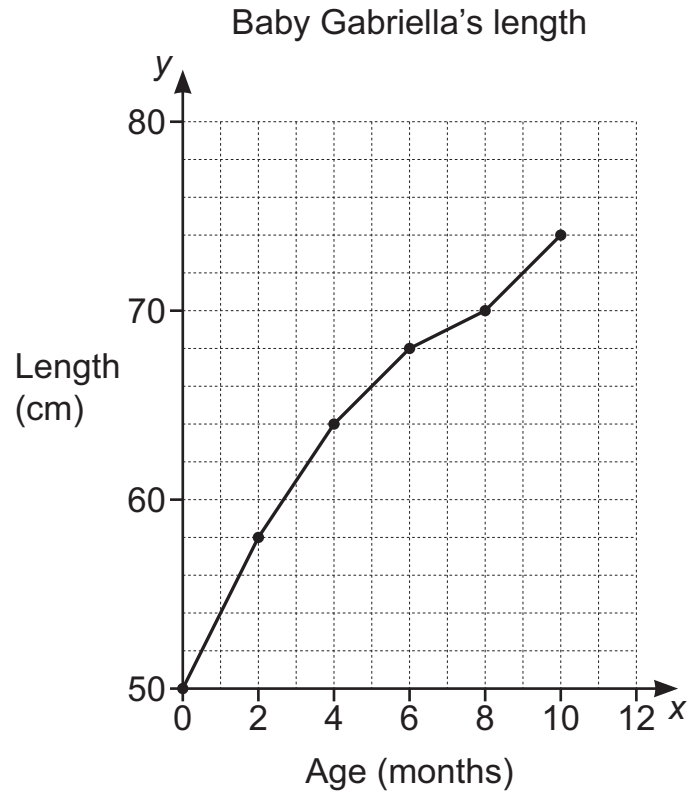
(b) Pierre picks **one** card at random.

Tick (✓) **all** the pairs of events that are mutually exclusive.

Event 1	Event 2	Mutually exclusive
Pierre picks a white shape	Pierre picks a grey shape	
Pierre picks a triangle	Pierre picks a grey shape	
Pierre picks a circle	Pierre picks a triangle	
Pierre picks a square	Pierre picks a white shape	

[1]

- 16** Baby Gabriella's length is measured every 2 months. Here is a line graph showing her length.



- (a)** Baby Gabriella is 78 cm long when she is 12 months old.

Plot this information and complete the line graph.

[1]

- (b)** Draw a ring around the age range when baby Gabriella grew the most.

0–2 months

2–4 months

4–6 months

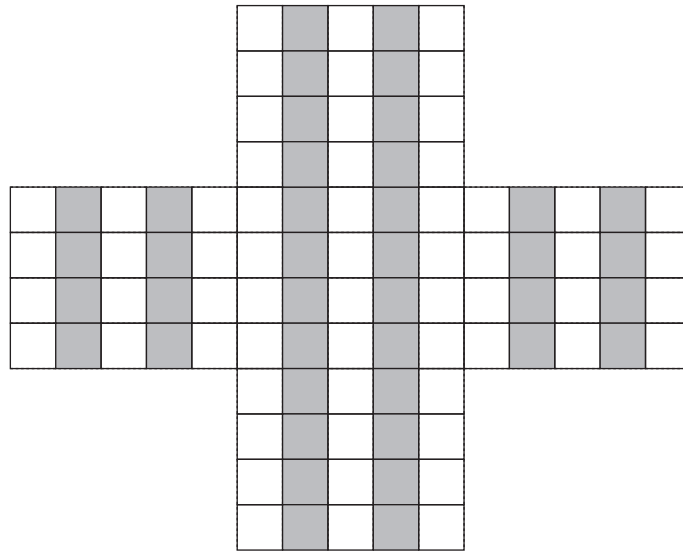
6–8 months

8–10 months

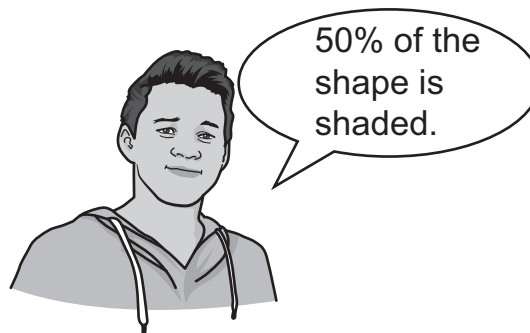
10–12 months

[1]

- 17 Carlos draws a shape made of squares. He shades part of the shape.



Carlos says,



Tick (✓) to show if Carlos is correct.

Yes

☐

No

☐

Explain how you know.

.....

.....

[1]

18 Here is part of a sequence.

1.06 1.04 1.02

The sequence continues in the same way.

Write the next **two** numbers in the sequence.

[1]

19 Here is a recipe for making strawberry milkshake.

One strawberry milkshake
Ingredients 8 strawberries 250 ml milk 2 ice cubes Method Place all the ingredients in a blender for one minute.

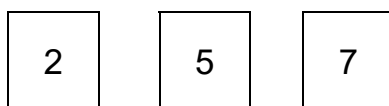
Chen uses the recipe to make strawberry milkshakes for his friends.
He has

- 56 strawberries
- 1.5 litres milk
- 20 ice cubes

Calculate the maximum number of strawberry milkshakes Chen could make with his ingredients.
Show your working.

[2]

20 Here are three digit cards.

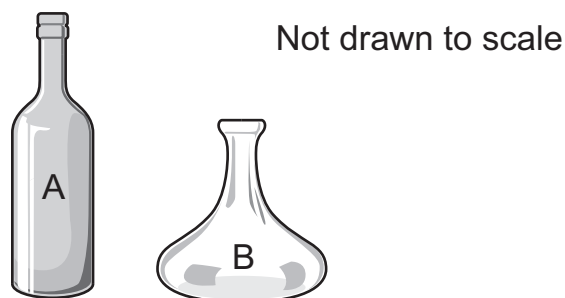


Use **all** three digit cards to make the **largest** possible answer.

$$\square \times (\square - \square)$$

[1]

21 Here are two empty bottles.



Naomi pours water with a volume of 600 ml into bottle A.
Bottle A is now half full.

Naomi then pours half of the water in bottle A into bottle B.
Bottle B is now half full.

Write the capacity of bottle A.

..... ml

Write the capacity of bottle B.

..... ml

[2]

- 22** A bag contains red, white and black beads only.
There are 8 beads in the bag altogether.
Mike picks **one** bead from the bag at random.

There is an even chance of picking a black bead.
There is a greater chance of picking a red bead than a white bead.

Complete the table about Mike's beads.

Colour of bead	Number of beads
Red	
White	
Black	

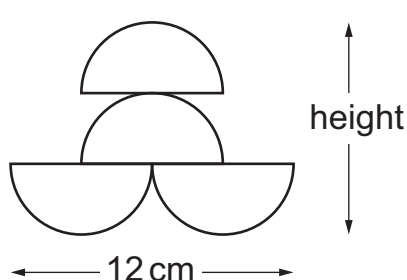
[1]

- 23** Write a number in the box to complete the statement.

$$\boxed{} \times 5 = \frac{3}{4}$$

[1]

- 24** Two **identical** circles are cut in half.
The four pieces are arranged to make a new shape of width 12 cm.

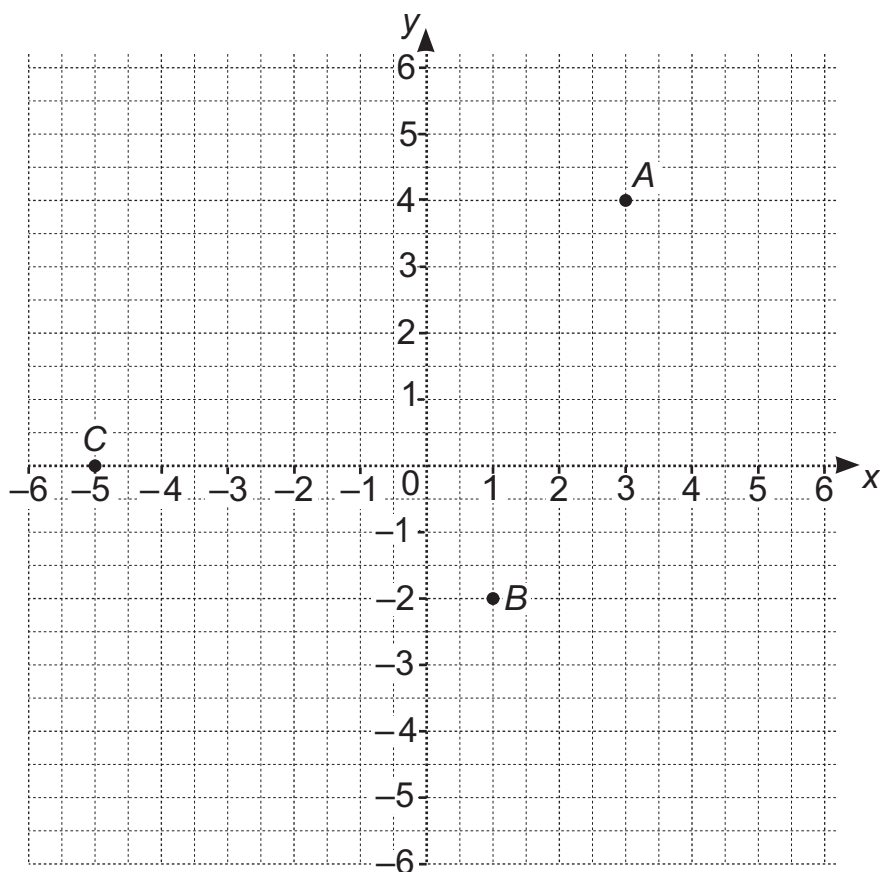


Not drawn
to scale

Write the height of the new shape.

..... cm [1]

25 Points A , B and C are plotted on the coordinate grid.



(a) Write the coordinates of the middle point on the line joining A and B .

(..... ,) [1]

(b) $ABCD$ is a square.

Write the coordinates of point D .

(..... ,) [1]

26 Lily has four digit cards.

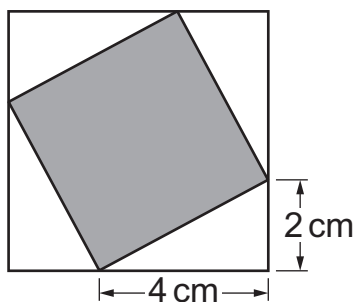


Lily uses the cards to make a 3-digit number that is divisible by 6

Write **all** the different numbers Lily could make.

.....
 [2]

27 Yuri arranges four **identical** right-angled triangles to make a square.



Not drawn to scale

Calculate the area of the shaded square.

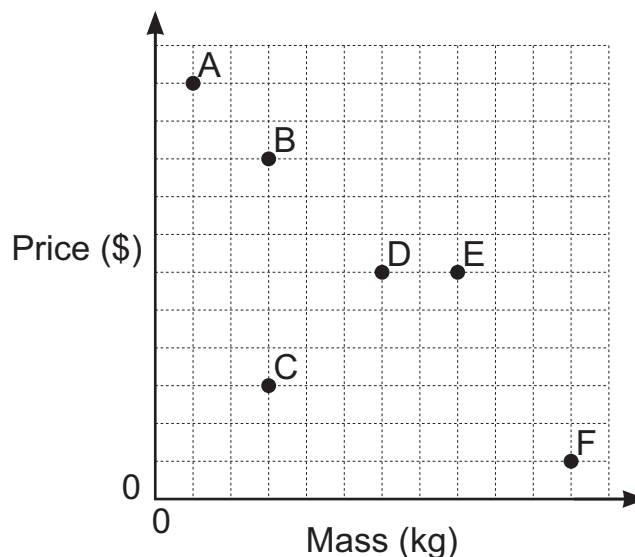
..... cm² [2]

28 Write a single digit in each box to complete the statement.

$$6 \text{ tens} + 308 \text{ hundredths} + 47 \text{ thousandths} = \boxed{}\boxed{}.\boxed{}\boxed{}\boxed{}$$

[1]

29 A chef wants to buy a large amount of flour.
The six bags of flour he could buy are shown in this scatter graph.
They are labelled A to F.



(a) Write the letter of the bag of flour that has the lowest price for each kilogram.

..... [1]

(b) Write the letters of the **two** bags of flour where the price for each kilogram is the same.

..... [1]

30 Here is a grid with two symbols.

○	○	○	12
○	△	○	13
△	△	△	
13	14	13	

Each symbol represents a whole number.
The totals of each of the columns and two of the rows are shown.

Complete the missing row total.

[1]

31 Safia chooses a number with three digits.
She multiplies her number by 100
The answer also has three digits.

Write a number Safia could choose.

[1]

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MATHEMATICS

0096/02

Paper 2

October 2023

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 may 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 **16** pages.

- 1 Write 2.3 hours in minutes.

..... minutes [1]

- 2 Write a number in each box to make the statement correct.

$$\boxed{} \div \boxed{} \text{ is } \frac{2}{5}$$

[1]

- 3 Write the name of a regular polygon with rotational symmetry of order 3

..... [1]

- 4 Ahmed translates a shape on a square grid.

Tick (✓) **all** the statements that are always true.

The new shape is the same size as the original shape.	
The new shape is a rotation of the original shape.	
The new shape is the same shape as the original shape.	
The new shape covers part of the original shape.	

[1]

3

- 5 Draw a circle with a radius of 4 cm and the centre at O.
Use a ruler and compasses.



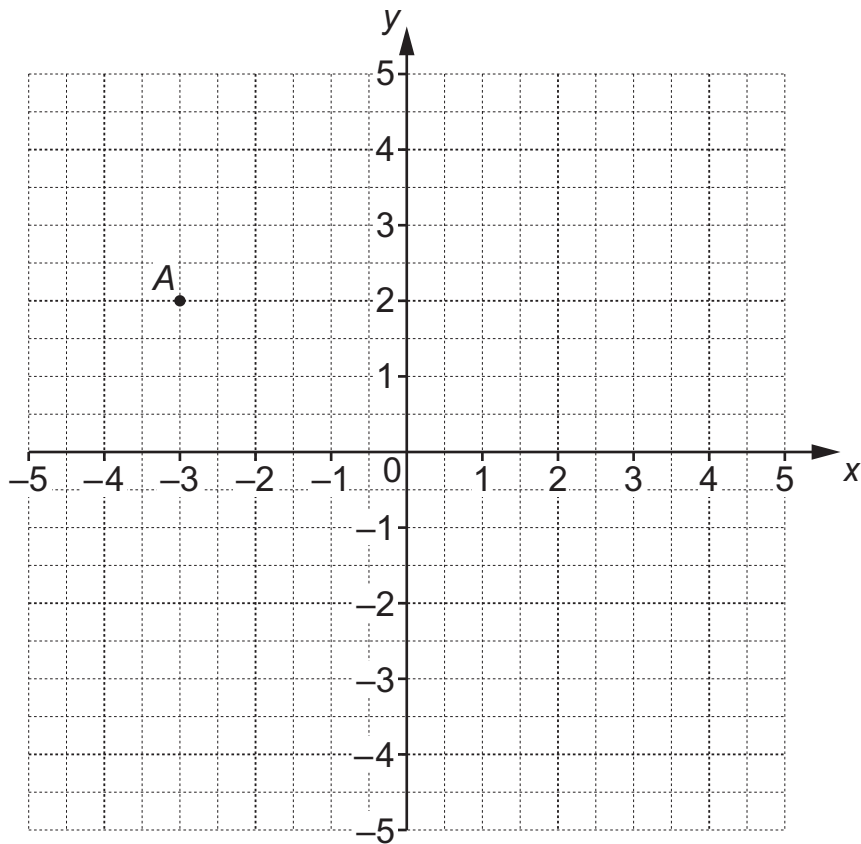
[1]

- 6 Complete the table of equivalent values.

Fraction	Decimal	Percentage
$1\frac{1}{5}$		
		30%
	0.54	

[2]

7 Point A is plotted on the coordinate grid.



(a) Write the coordinates of point A.

(..... ,) [1]

(b) Plot the point with coordinates $\left(\frac{3}{2}, -4\right)$

[1]

8 (a) Write a common multiple of 12 and 18

..... [1]

(b) Write a common factor of 12 and 18

..... [1]

- 9 Oliver predicts that girls have longer names than boys. He designs four questions to investigate his prediction.

Tick (✓) the question that is the **least** helpful for his investigation.

What is your name?	
How many letters are in your name?	
Is your name long or short?	
How do you spell your name?	

[1]

- 10 Calculate.

$$\frac{2}{3} + \frac{1}{4}$$

..... [1]

- 11 Tick (✓) all the shapes that **could** have an obtuse angle.

scalene triangle	
rectangle	
parallelogram	
pentagon	

[1]

12 Complete the statement using the correct word.

In the number 7.419 the 9 represents 9

[1]

13 Here is part of a sequence.

23, 17, 11, ...

The sequence continues in the same way.

Draw a ring around **all** the numbers that are in the sequence.

7 -2 -7 -35 -49

[1]

14 Draw a line to match each number to the correct description.

136 tenths

1064 hundredths

125 tenths and 42 hundredths

1 ten and 75 tenths

1 ten, 40 tenths and 36 hundredths

Greater than 13.56

Less than 13.56

[2]

- 15** A clock needs one battery to work.
The battery lasts 6 weeks.

(a) Calculate the number of batteries that are needed for the clock to work for 1 year.

..... [1]

(b) A box contains 30 batteries.
These are used in the clock.

Write the number of whole weeks that the clock will work.

..... weeks [1]

- 16** Here is a Carroll diagram that describes some properties of shapes.

	Has parallel sides	Does not have parallel sides
Diagonals are the same length		
Diagonals are not the same length		

Draw a ring around the quadrilateral that belongs in the shaded part of the diagram.

rhombus trapezium parallelogram kite square

[1]

- 17** Here are the first three terms of a sequence.
Each term is made from the sum of a pair of square numbers.



The sequence continues in the same way.

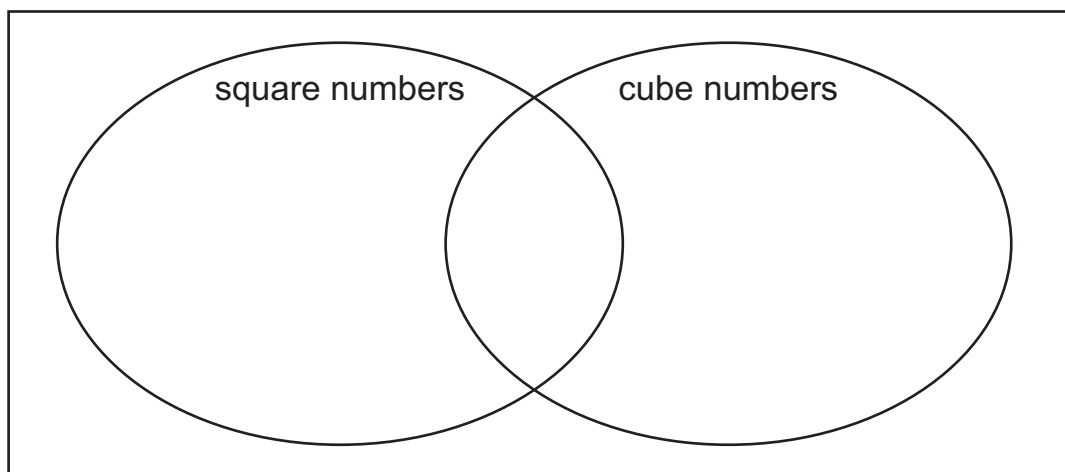
Write the 6th number in the sequence.

..... [1]

- 18** Here are some numbers.

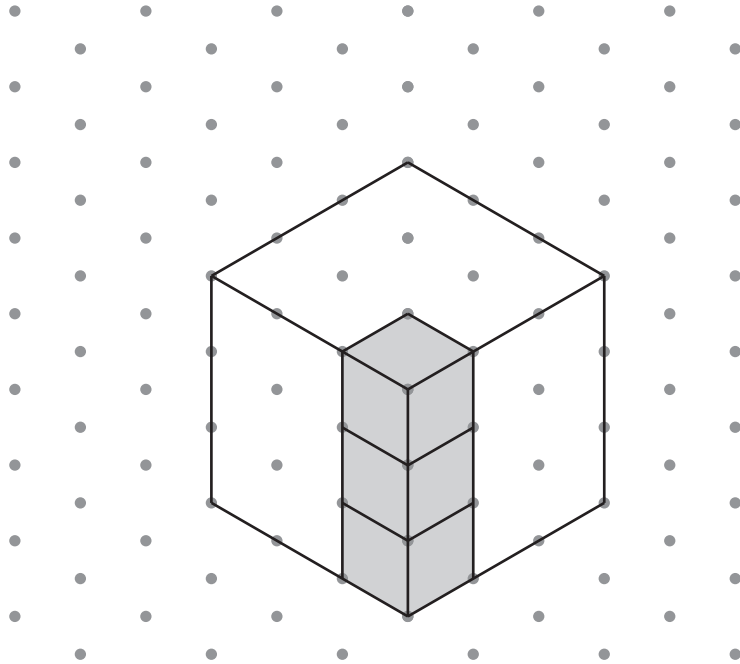
1 5 8 16 25 64

Write **each of** these numbers in the correct place on the Venn diagram.



[2]

- 19** Here is a drawing of a large cube on isometric paper.
The large cube is made of 27 smaller cubes.



The three shaded cubes are removed.

Draw the new shape.



[1]

- 20** Eva collects data about the mass, in kilograms, of 30 different school bags. She wants to use the best representation to show her data.

Explain why Eva should **not** use a bar chart.

.....
..... [1]

- 21** Here are some numbers.

4.4

4.31

3.45

4.53

5.2

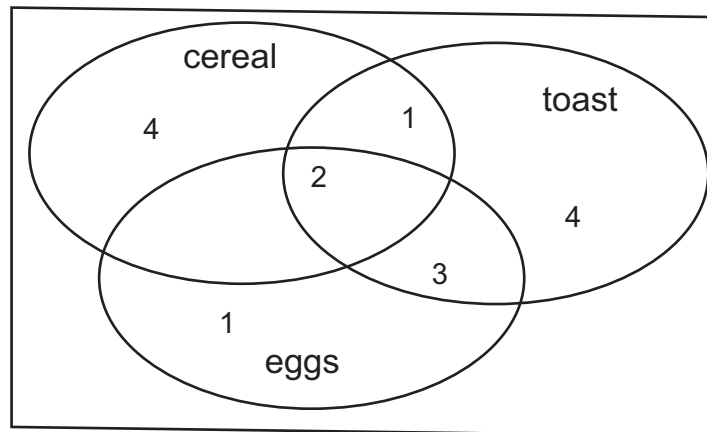
Rajiv arranges the numbers in order of size, starting with the smallest.

Write the 3rd number in his list.

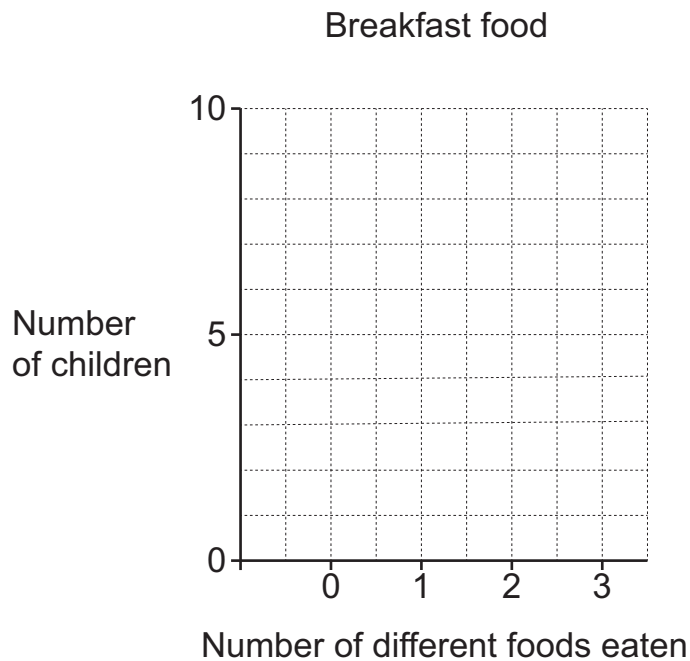
..... [1]

22 Jamila asks a group of children what food they eat for breakfast.

The Venn diagram shows the number of children and what they eat for breakfast.



Show this information on the dot plot.



[2]

23 Samira grows some sunflowers.

She buys four types of sunflower seed and labels them A, B, C and D.

She uses this table to record the number of each type of seed that grows.

	Type A	Type B	Type C	Type D
Number of seeds planted	20	50	40	10
Number of seeds that grow	15	35	25	5

Next year she wants to buy the type of seed that is most likely to grow.

Write the type of seed that is **most likely** to grow.

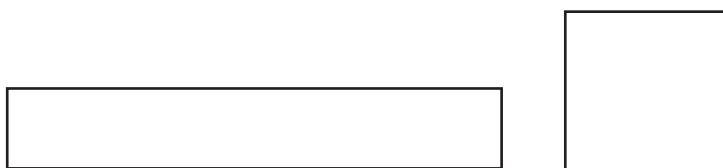
..... [1]

24 Write a number in the box to complete the statement.

$$\frac{3}{\boxed{}} \div 2 = \frac{3}{2}$$

[1]

25 Here is a drawing of a rectangle and a square.



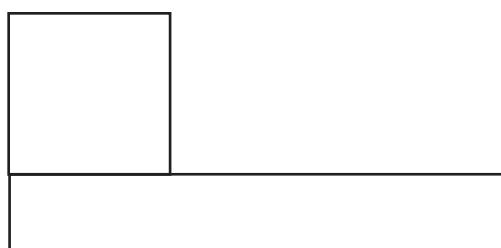
Not drawn to scale

The lengths and widths of both shapes are measured in centimetres.

All the measurements are **even** numbers.

The length and width of the rectangle are different even numbers.

The two shapes are used to make this compound shape.



Not drawn to scale

The area of the compound shape is 32 cm^2 .

Find a possible length and possible width of the rectangle.

length cm
width cm
[2]

- 26** Hassan has 2.4 metres of string.
He cuts a piece off the string and gives this to Mike.

Mike cuts his piece of string into two equal pieces.
Each of these two pieces is 30 centimetres long.

Complete the sentence.

Hassan gives % of his string to Mike.

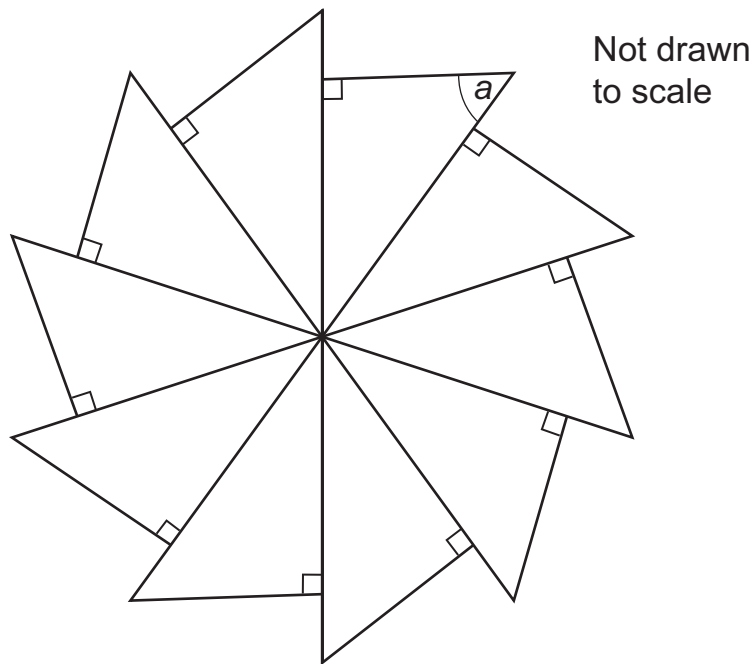
[2]

- 27** Naomi and Angelique each think of a number with exactly 1 decimal place.
Both numbers round to the same whole number.

Write the largest possible **difference** between the two numbers.

..... [1]

28 Ten identical right-angled triangles are arranged to make a new shape.



Find the value of the angle marked a .
Show your working.

.....[°] [2]

- 29 The mean height of a group of five children is 120 centimetres.
The modal height of the same group of children is 125 centimetres.

Three new children join the group.



The mean height of the eight children is 125 centimetres.
The modal height of the eight children is 120 centimetres.

Here are two pairs of statements about the three new children who joined the group.
Tick (✓) the correct statement in **each** pair.

Exactly one of the three new children must be 120 centimetres tall	
Exactly two of the three new children must be 120 centimetres tall	

The three new children have a total height of 300 centimetres	
The three new children have a total height of 400 centimetres	

[2]

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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

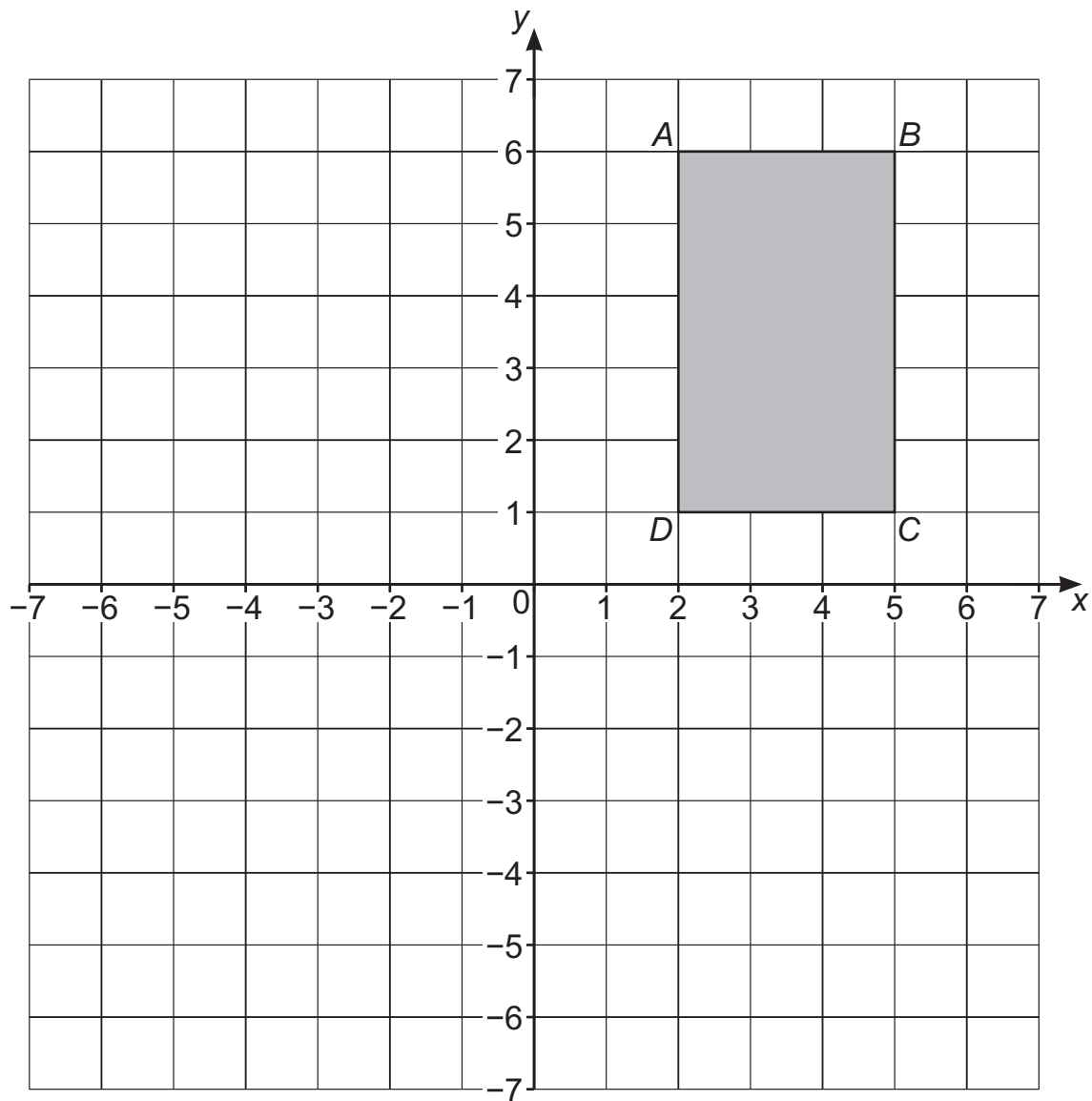
- Answer **all** questions.
- Use a black or dark blue pen. You may use an HB pencil for any diagrams or graphs.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction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

.....

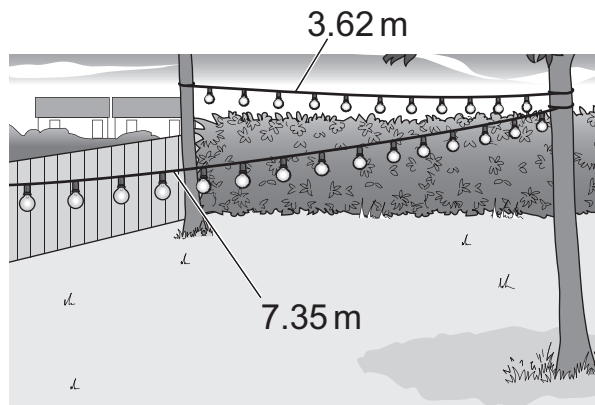
.....

..... [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.

$$360 \div 4$$

$$0.36 \div 4$$

$$36 \div 4$$

$$3.6 \div 4$$

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

6 Calculate.

$$345 \div 15$$

..... [1]

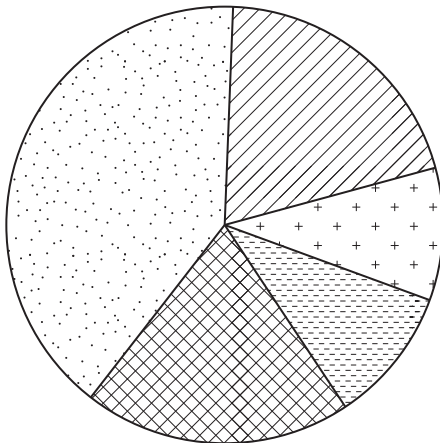
7 Rajiv records the vehicles that pass his house one morning.

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.

$$\frac{4}{12}$$

$$\frac{8}{12}$$

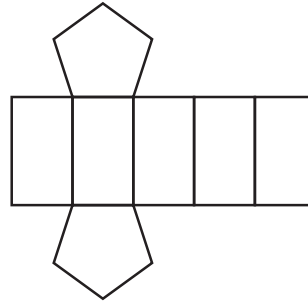
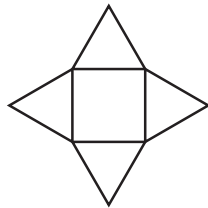
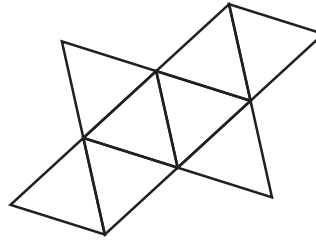
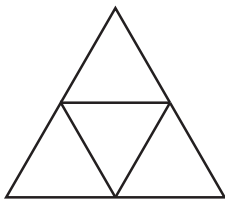
$$1\frac{1}{4}$$

$$1\frac{1}{2}$$

$$1\frac{2}{3}$$

[1]

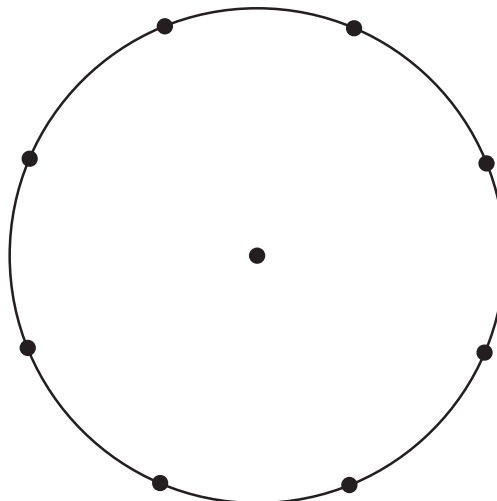
- 9 Here are the nets of some 3D shapes.



Draw a ring around the net of the prism.

[1]

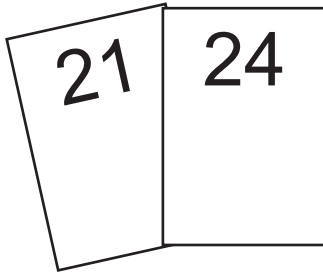
- 10 Here is a circle.
It has eight equally spaced dots around its edge and one in the centre.



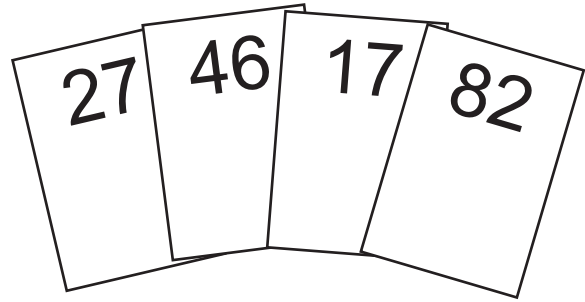
Join **three** dots to draw a right-angled triangle.

[1]

11 Here are two sets of cards.



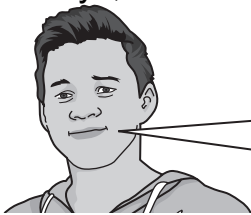
Set A



Set B

Hassan picks one card from each set at random.

Hassan says,



I am **equally likely** to pick an even number from Set A as I am to pick an even number from Set B.

Tick (✓) to show if Hassan is correct.

Yes

☐

No

☐

Explain how you know.

.....

.....

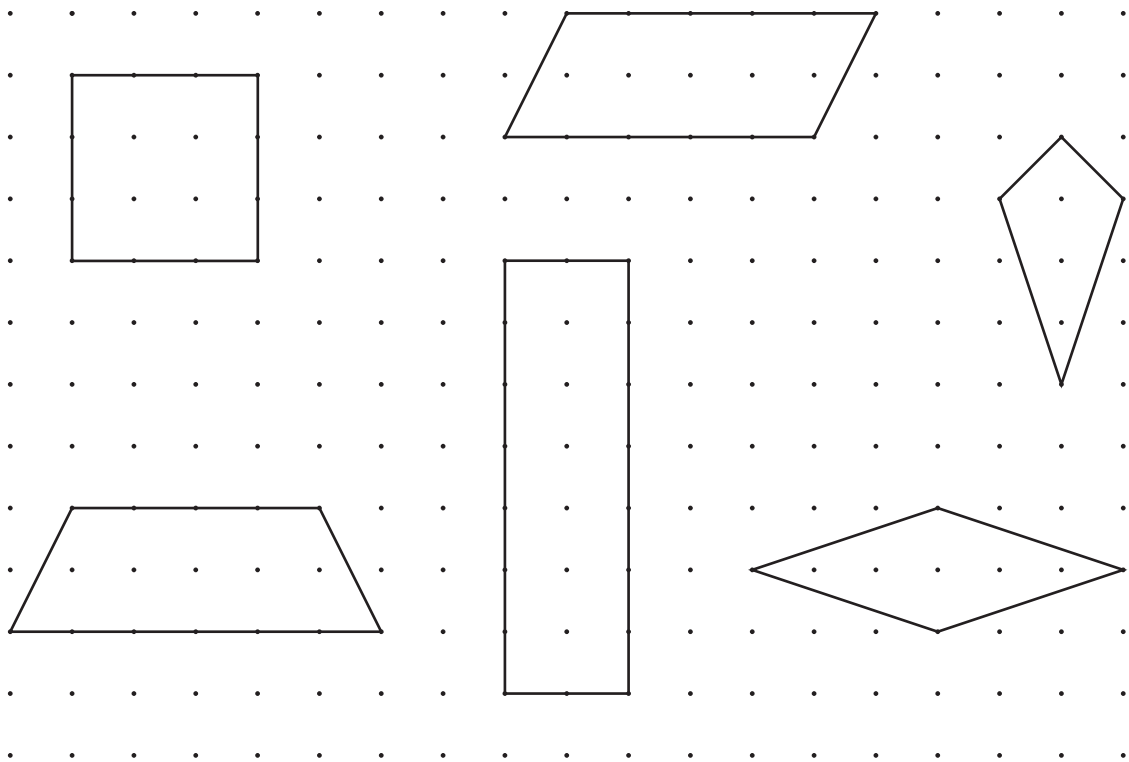
[1]

12 An aeroplane carries 269 passengers each day.

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

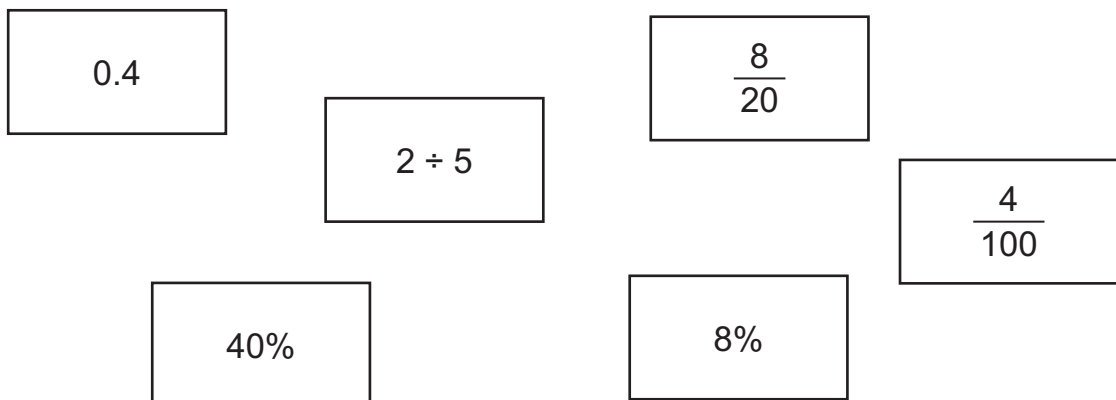
..... [1]

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.



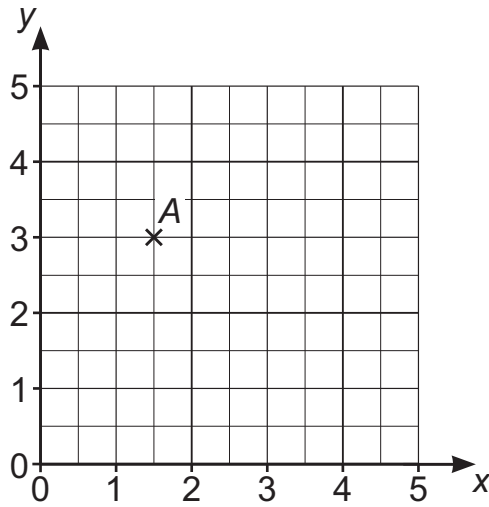
Draw a ring around **all** the cards that show equivalent values. [2]

- 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 .

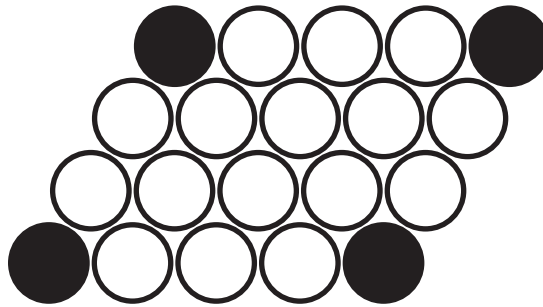
(..... ,) [1]

- (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.

$$\boxed{} - 12 = -20$$

[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 $b =$

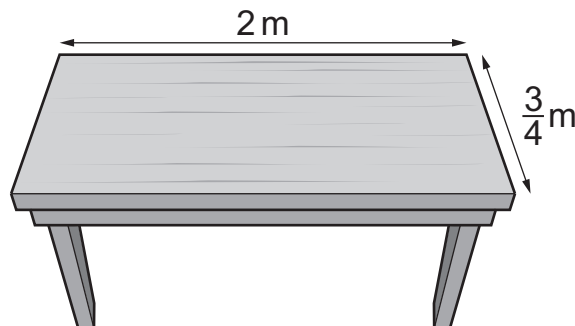
$a =$ and $b =$

$a =$ 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.

..... m² [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,



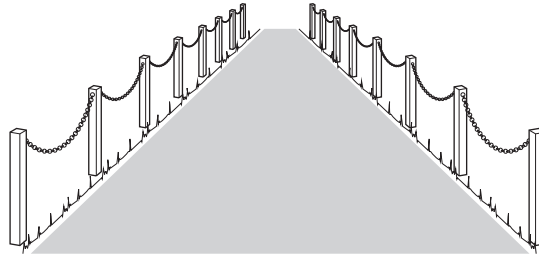
The numerator is a multiple of 2
The denominator is less than 6
The value of the fraction is greater than 1
and less than 2

Write a fraction that Lily could choose.

[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,

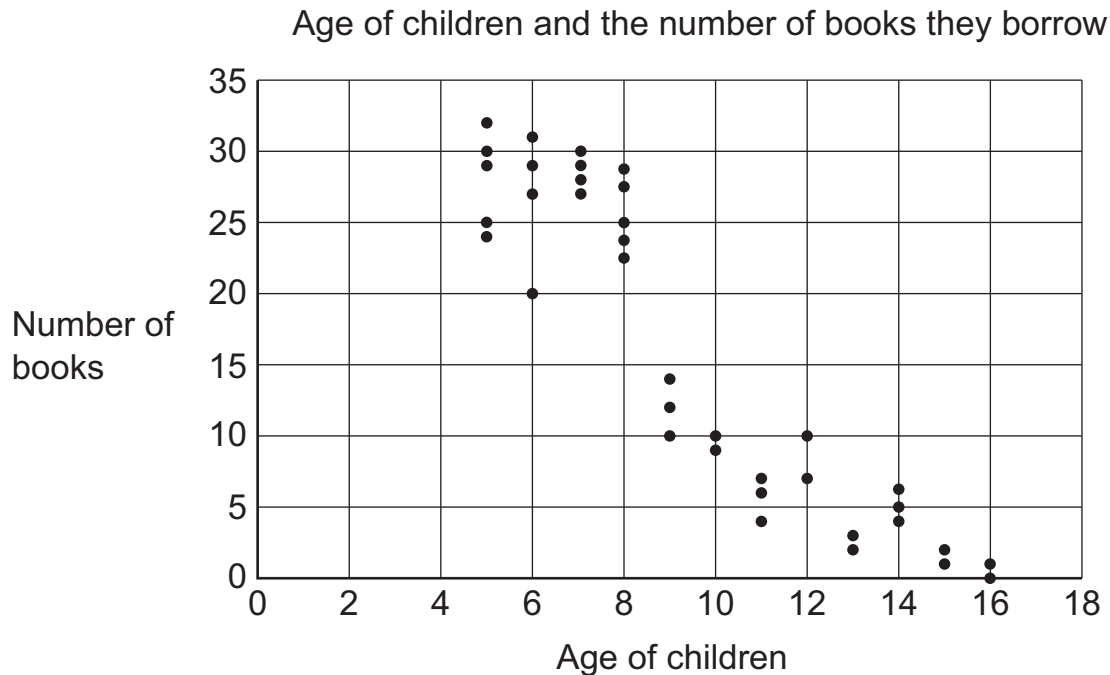


I can keep adding 9 until I get to the 20th term.
I can also calculate the 20th term without using addition.

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.



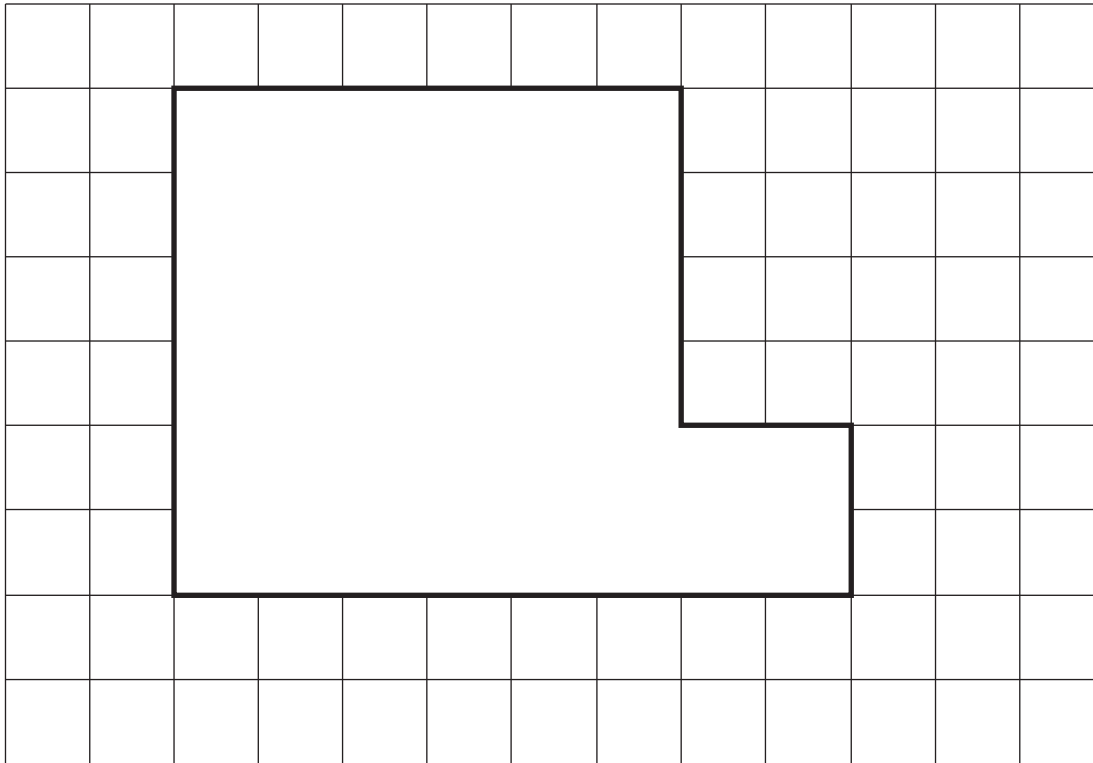
Tick (✓) to show whether the statements about the information in the graph are true or false.

	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]

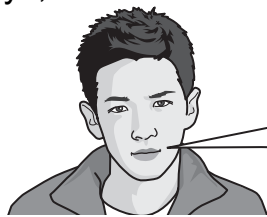
28 Write a number in each box to make this calculation correct.

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

[1]

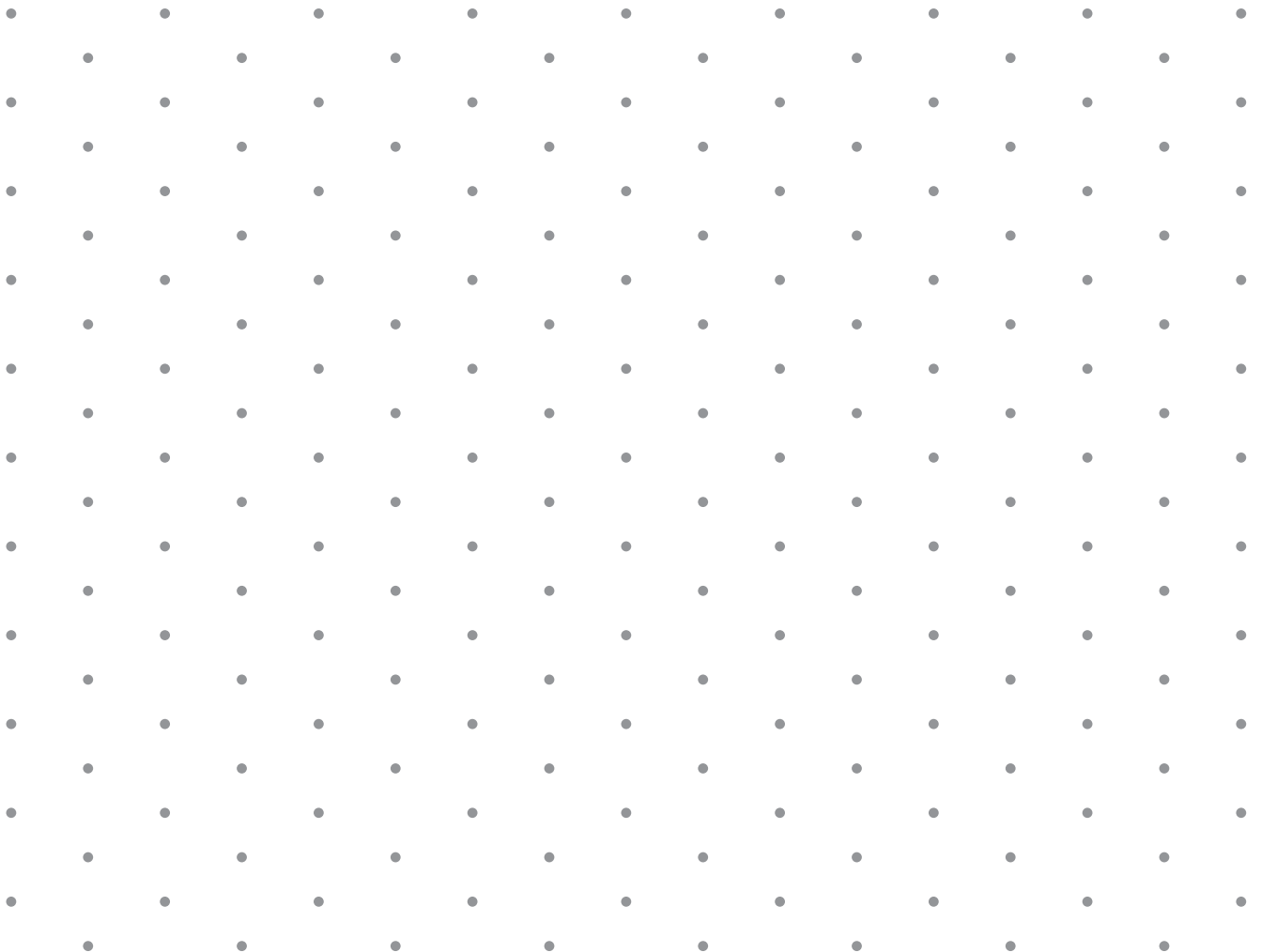
29 Chen chooses a 3D shape.

Chen says,



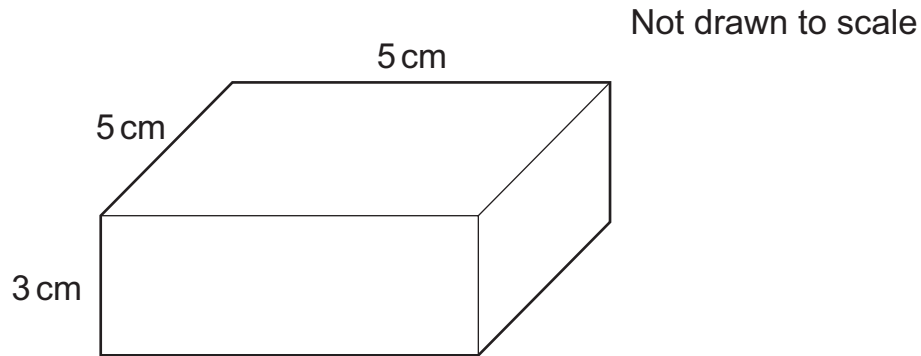
My shape has 2 triangular faces and 3 rectangular faces.

Sketch a shape that Chen could choose.



[1]

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



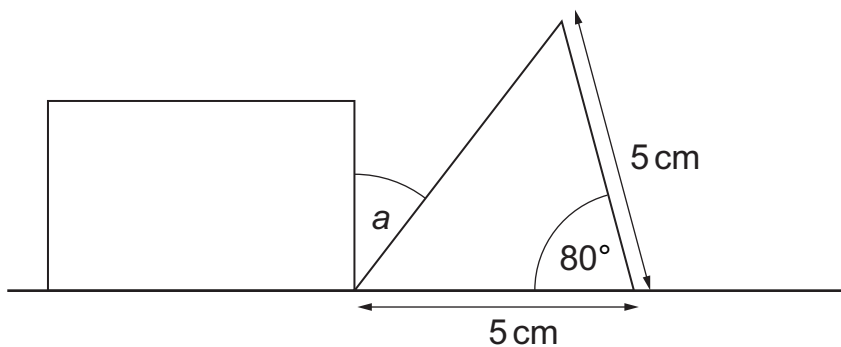
Each square has an area of 25 cm^2 .
Each rectangle has an area of 15 cm^2 .

Calculate the surface area of the cuboid.

..... cm^2 [2]

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

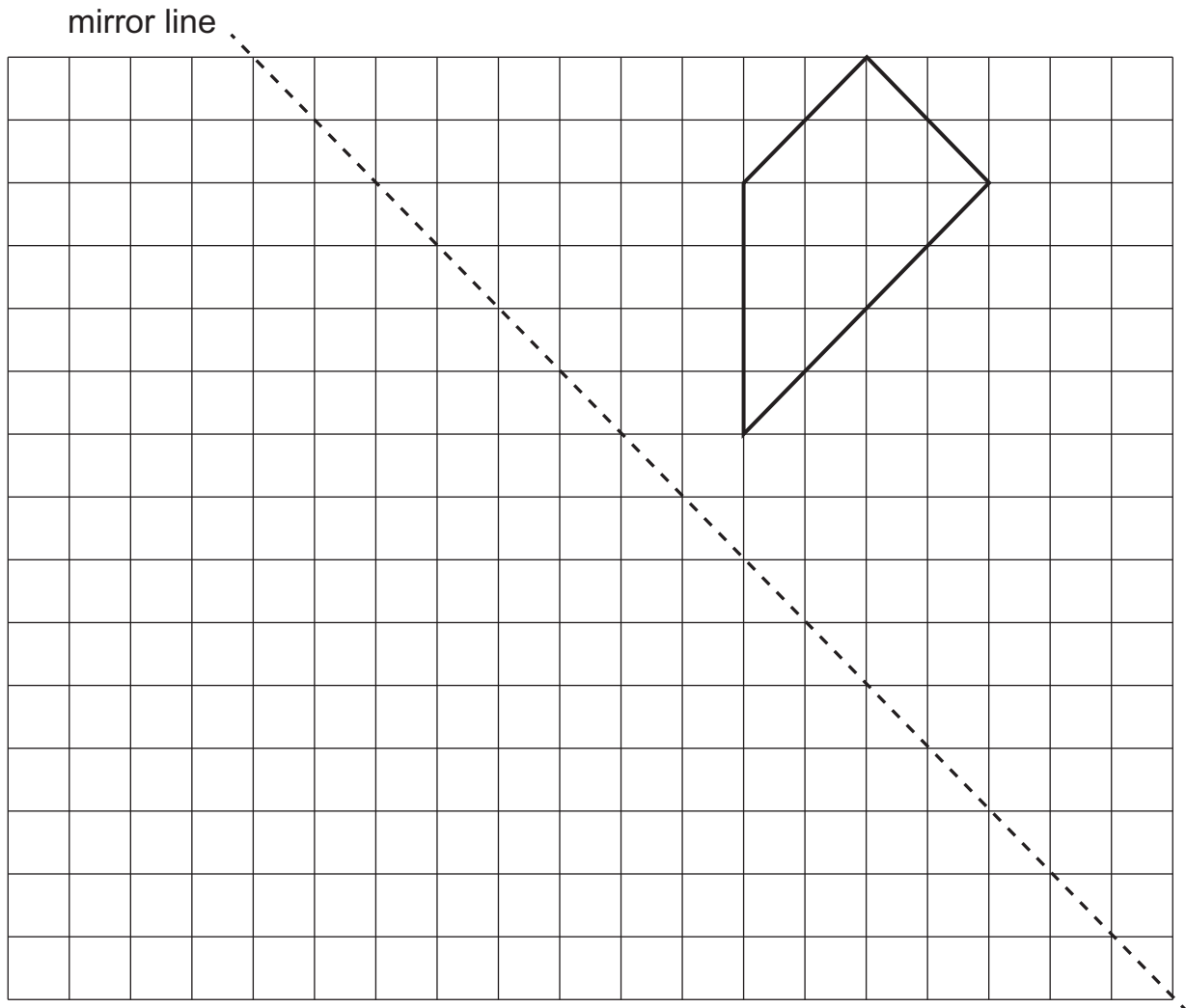
Not drawn to scale



Calculate the value of the angle marked a .

..... $^\circ$ [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

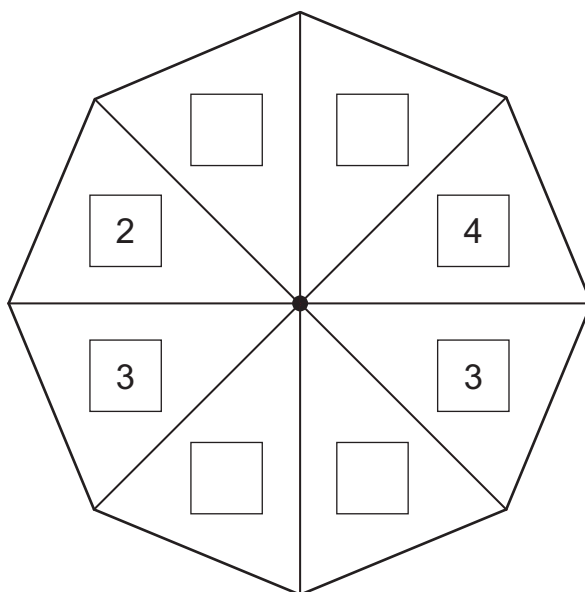
[2]

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]

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MATHEMATICS

0096/02

Paper 2

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 may 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 [].

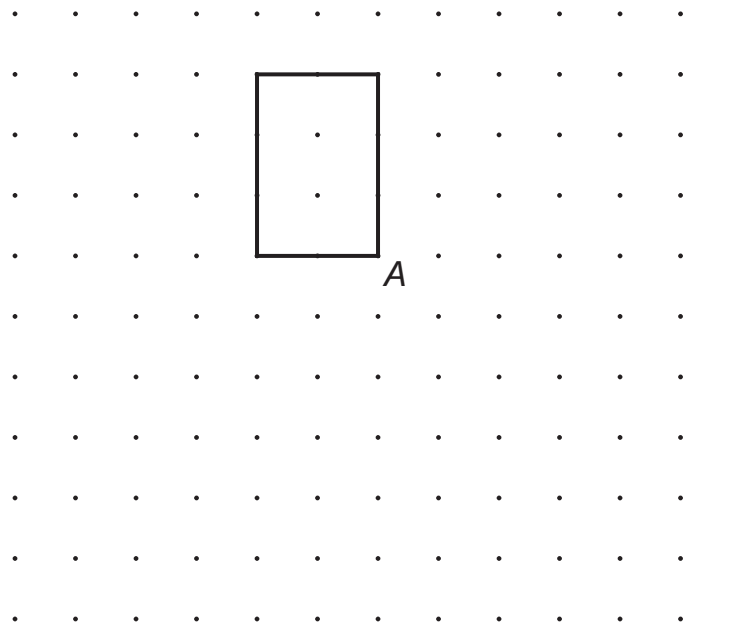
This document has **20** pages.

1 Calculate.

$$\frac{1}{3} - \frac{1}{5}$$

..... [1]

2 Here is a rectangle drawn on a dotted grid of squares.
One of the vertices is labelled A.



The rectangle is rotated 90 degrees clockwise around vertex A.

Draw the rectangle in its new position.

[1]

3 Here are some numbers.

$$\frac{3}{4}$$

45%

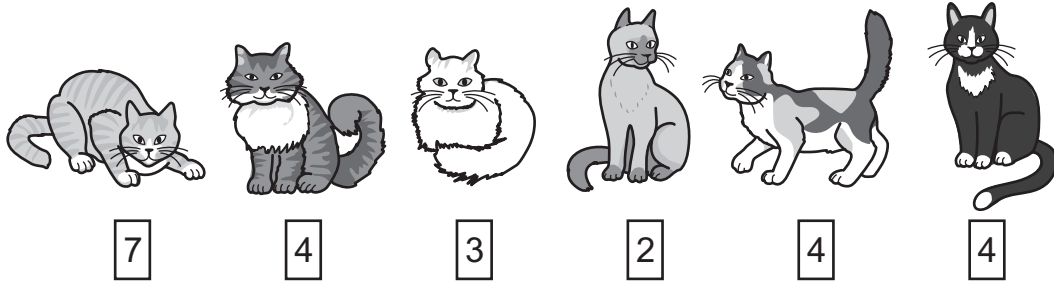
0.6

Write each number in a box to make the statement correct.

	<		<	
--	---	--	---	--

[1]

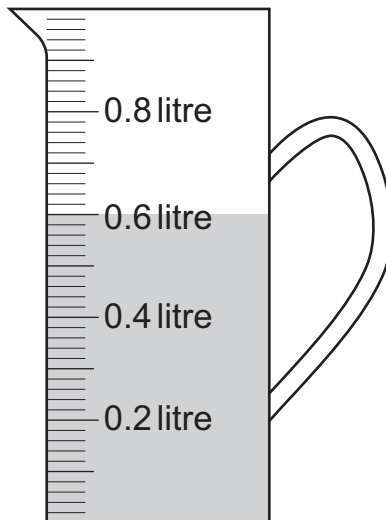
- 4 Pierre has six cats.
The cards show the age of each cat in years.



Write the range of the ages of the cats.

..... years [1]

- 5 Here is a picture of a jug with water inside.



Write the word **capacity** or **volume** in each space to complete the sentences.

The of the jug is greater than the of water.

The of water is 0.6 litre.

The of the jug is 1 litre.

[1]

- 6 Here is some data about the number of books the children in two classes read in a month.

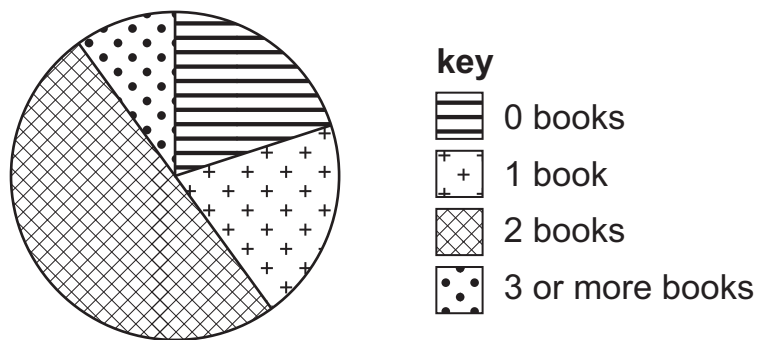
Data from Class R is recorded in a table.

Number of books read by children in Class R

Number of books read	0	1	2	3 or more
Number of children	3	8	12	7

Data from Class T is recorded in a pie chart.

Number of books read by children in Class T

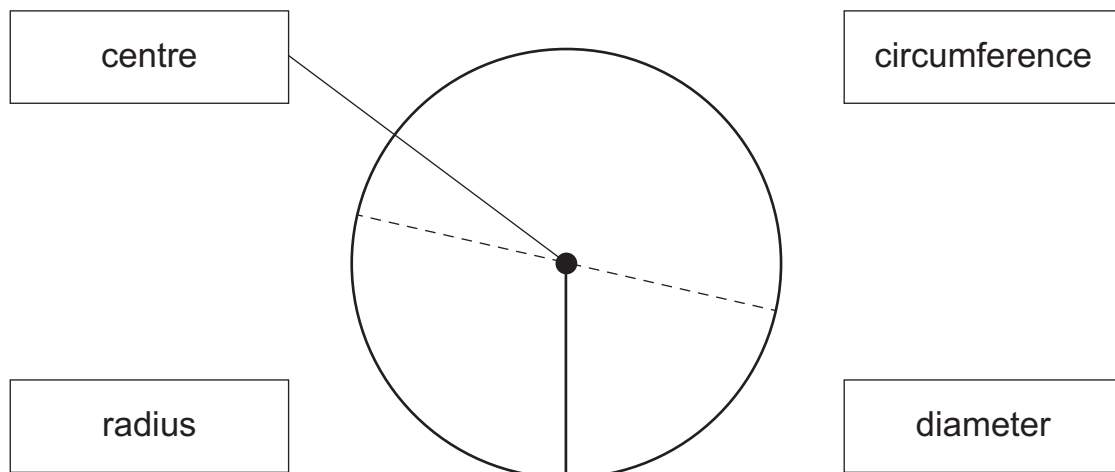


Gabriella wants to compare the number of children in each class who read 2 books in a month.

Write **one** extra piece of information Gabriella needs to know.

..... [1]

- 7 Here is a circle.
The centre is marked.



Draw a line to match each label to the correct part of the circle.

[1]

8 Write the correct number in each box to complete the calculation.

$$46 \times 34 = 46 \times \boxed{} + \boxed{} \times 4$$

[1]

9 Some children try to describe pairs of mutually exclusive events.

☐		I arrive early for school. I arrive late for school.
☐		I walk forwards. I walk quickly.
☐		I finish my homework. I do not finish my homework.
☐		I can walk. I can talk.

Tick (✓) **all** the children who correctly describe mutually exclusive events.

[1]

10 Write a two-digit number ending in 7 that is a prime number.

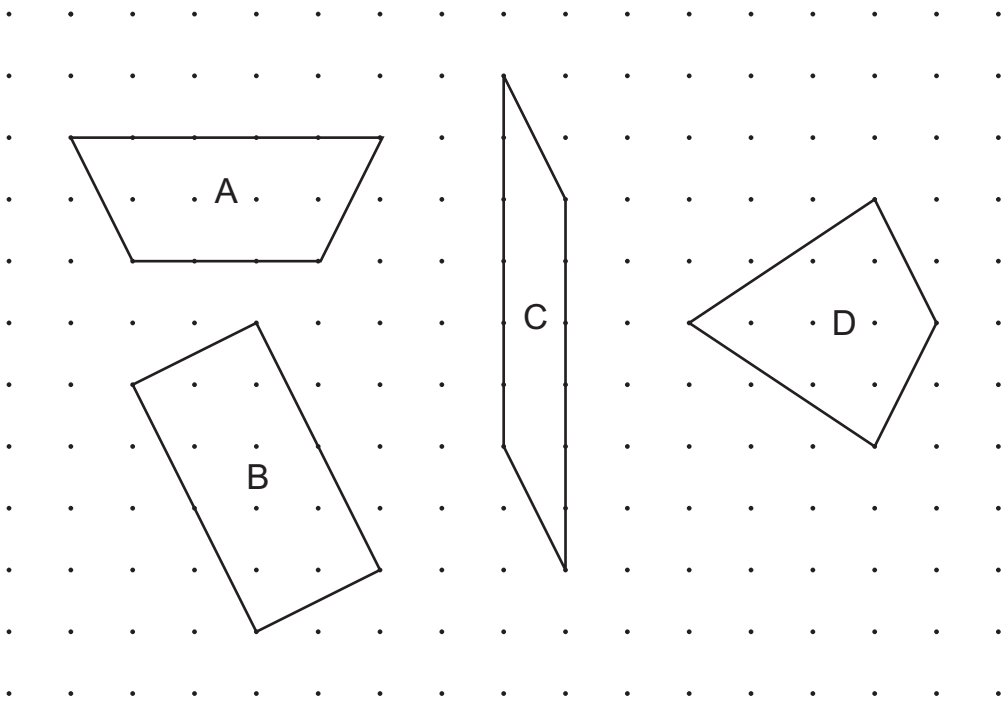
.....

Write a two-digit number ending in 7 that is **not** a prime number.

.....

[1]

11 Here are four quadrilaterals drawn on a dotted grid of squares.



The quadrilaterals are labelled A, B, C and D.

Write the letter of the correct quadrilateral next to each statement.

The shape has no lines of symmetry.	
The shape has no parallel lines.	
The shape has 1 pair of parallel lines.	

[1]

12 Safia collects information about each child in her class.

(a) Draw a ring around the set of data that does **not** have a median.

number of days until next birthday

colour of eyes

height in centimetres

number of pets

[1]

(b) Here is Safia's data about number of pets.

1 1 3 1 1 4 3 0 5 1

Calculate the mean number of pets.

..... [1]

13 Tick (✓) **all** the statements that are equivalent to 42.573

42 ones and 573 thousandths

☐

425 tenths and 73 hundredths

☐

4 tens, 2 ones, 57 hundredths and 3 thousandths

☐

42 ones, 57 tenths and 3 thousandths

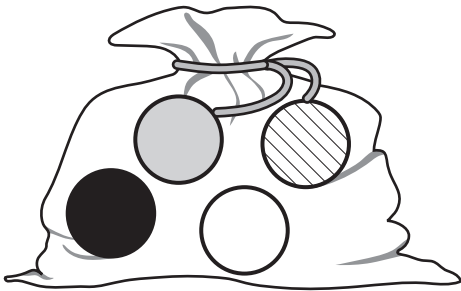
☐

4 tens, 2 ones, 5 tenths, 7 hundredths and 3 thousandths

☐

[2]

14 A bag contains exactly 1 white ball, 1 grey ball, 1 black ball and 1 striped ball.



Eva picks one ball at random.
Draw a line to match each event to the correct probability.

Event	Probability
The ball is white.	75%
The ball is not striped.	0%
The ball is either grey or white.	1 out of 4
The ball is yellow.	1 out of 2

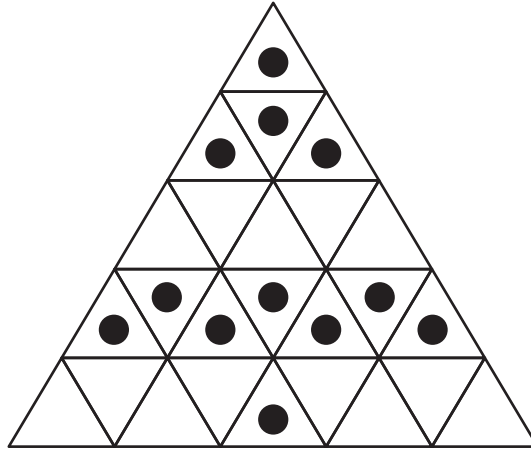
[1]

15 Two horses need 36 000 kg of hay each year.

Calculate the amount of hay that seven horses need each year.

..... kg [1]

16 Here are 25 small triangles.



A fraction of the small triangles have a dot inside.

Draw a ring around **each** number that is equivalent to this fraction.

0.48

12%

0.12

$\frac{12}{13}$

48%

$\frac{12}{25}$

[2]

17 Hassan makes a sequence by halving square numbers.
He records the numbers in a position-to-term table.

Position	Term
1st	$\frac{1}{2}$
2nd	2
3rd	$4\frac{1}{2}$
4th	8

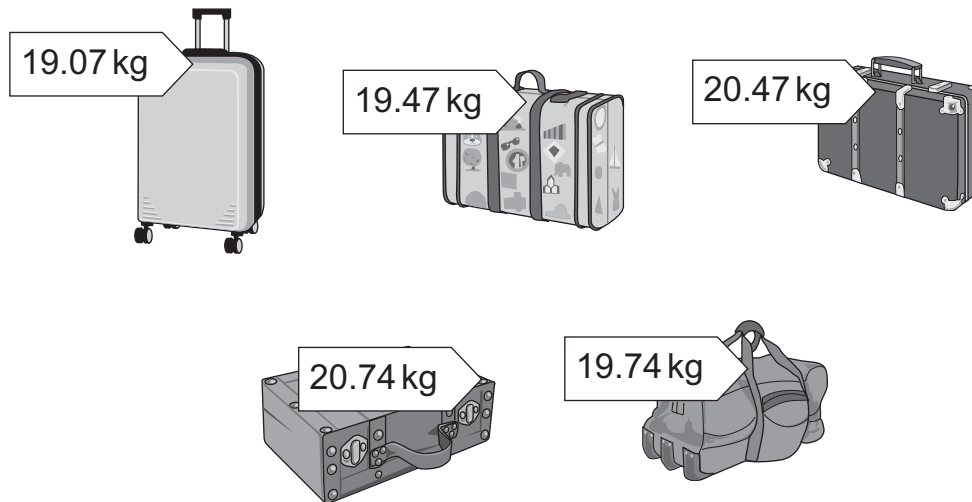
Write the 8th term in the sequence.

..... [1]

18 Write **two** common multiples of 12 and 30

..... [1]

19 Here are some suitcases.

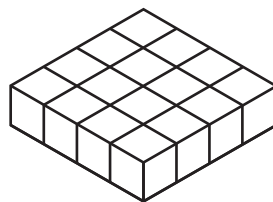


The mass of each suitcase is shown on the label.

Oliver rounds each mass to the nearest kilogram.

Draw a ring around **each** suitcase with a mass that rounds to 20 kilograms. [1]

20 Here is a drawing of a cuboid made from 16 small cubes.

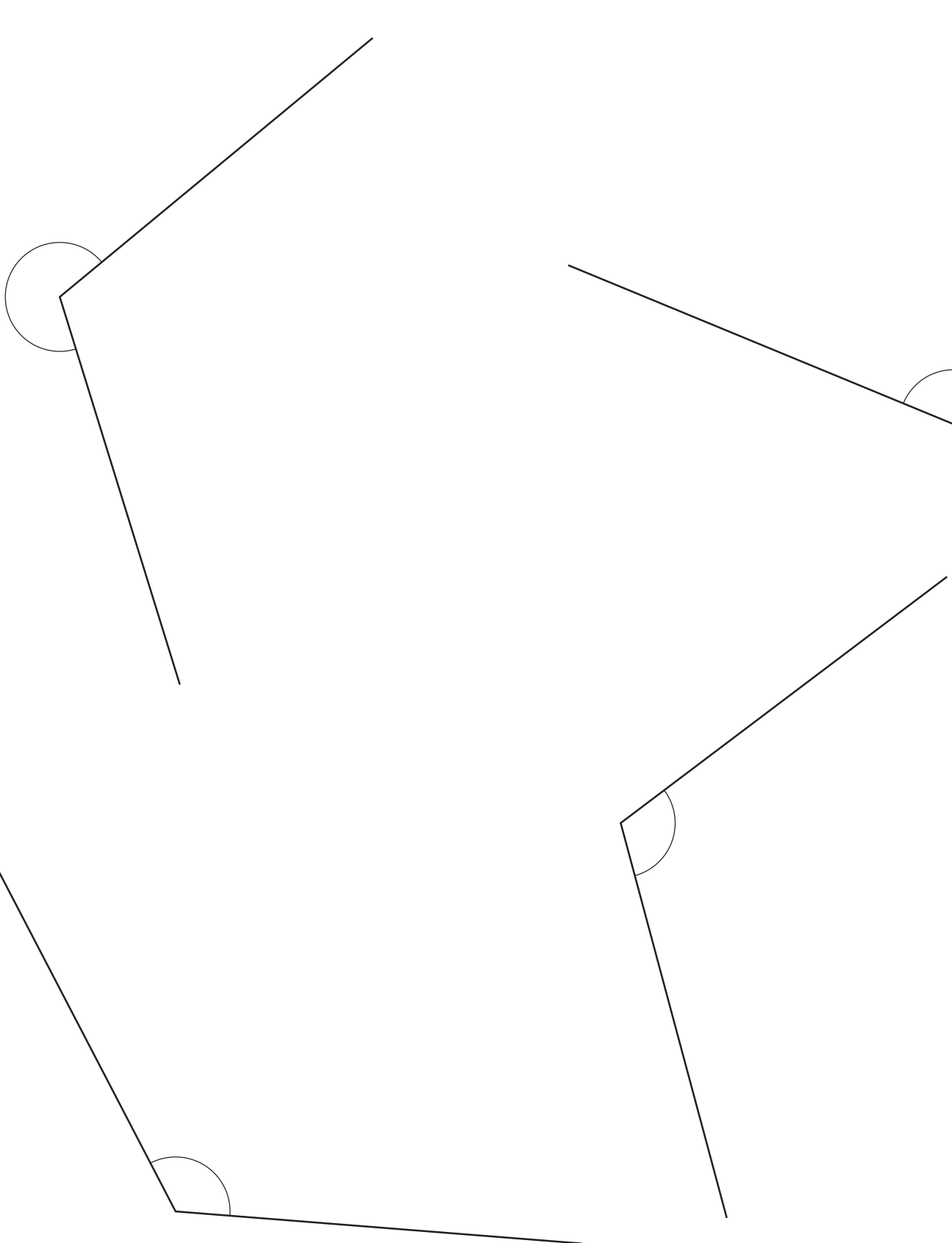


Youssef uses a number of these **cuboids** to make a cube.

Write the total number of **cuboids** that Youssef uses to make the cube.

..... [1]

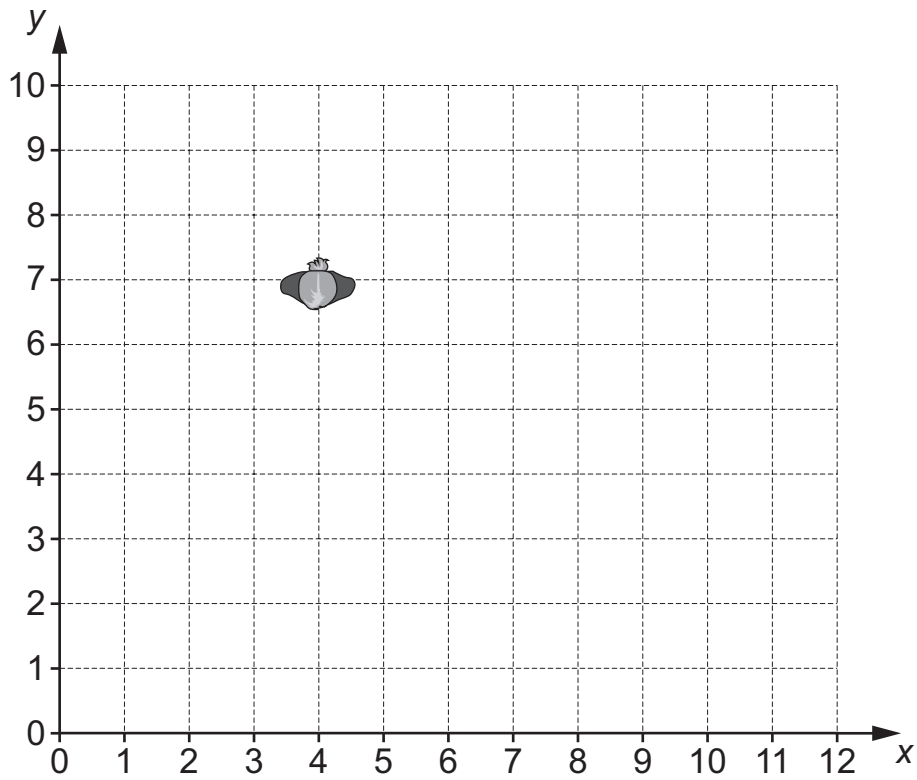
21 Here are some angles.



Draw a ring around the angle that is 112° .

[1]

22 A coordinate grid is drawn on the playground at Mia's school.



Mia walks in straight lines between points on the grid.
The straight lines can be joined to make a square.

Complete the instructions for her walk.

Start at (4, 7).

Go to (4, 3).

Go to (8, 3).

Go to (..... ,).

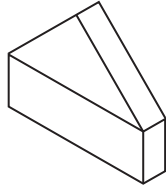
Go to (4, 7).

[1]

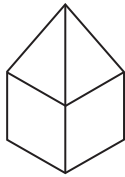
23 Lily makes some models.

She uses a cuboid and one other 3D shape for each model.

(a) Draw a line to match each model to the name of the **other** 3D shape she uses.



triangular
prism

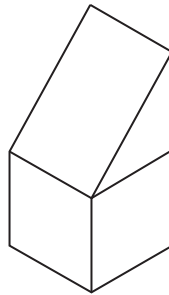


square-based
pyramid

triangle-based
pyramid

[1]

(b) Lily makes a new model.

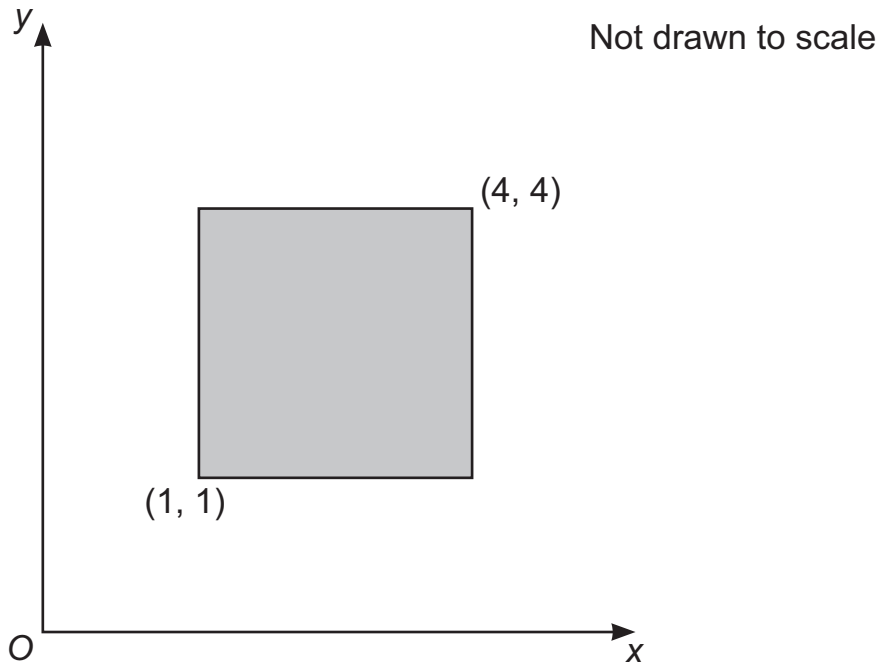


Complete the table to show the properties of the new model.
One has been done for you.

number of edges	12
number of faces	.....
number of vertices	.....

[1]

- 24** Anastasia draws a square on a coordinate grid. She marks two of the vertices.



Write the coordinates of a point that is **inside** the square.

(..... ,) [1]

- 25** Here are four cups with black and white balls inside.



Cup A



Cup B



Cup C



Cup D

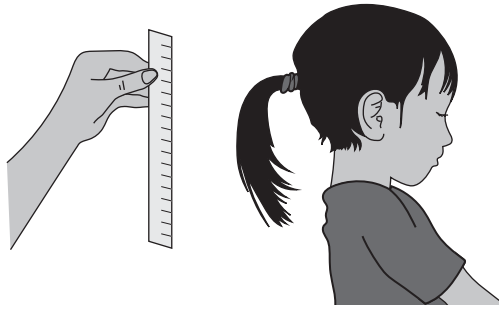
Samira picks **two** of the cups.
She puts all the balls from her two cups into an empty bag.

Samira says, 'I have an even chance of picking a black ball from my bag.'

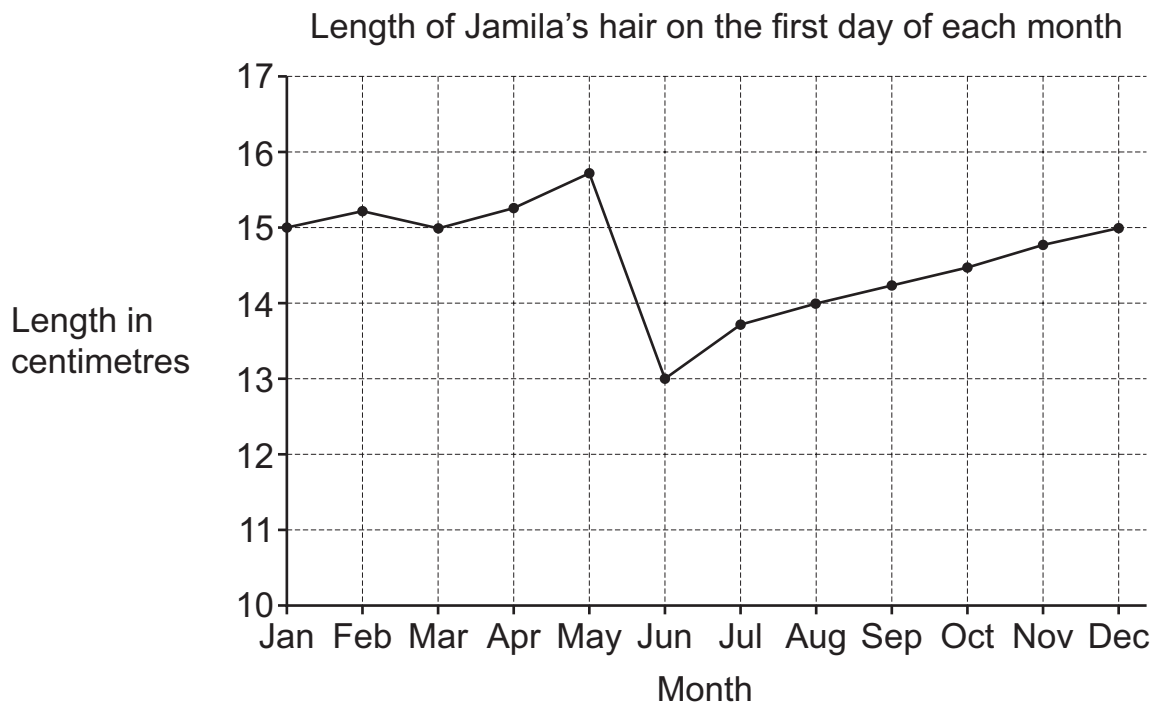
Write the names of the two cups that Samira picks.

..... and [1]

26 Jamila measures the length of her hair on the first day of each month.



Here is a graph that shows her measurements.



Tick (✓) the statements that are true about the information shown on the graph.

The difference in the length of Jamila's hair between each measurement is the same.

☐

Jamila's hair is 2 centimetres longer at the start of January than at the start of December.

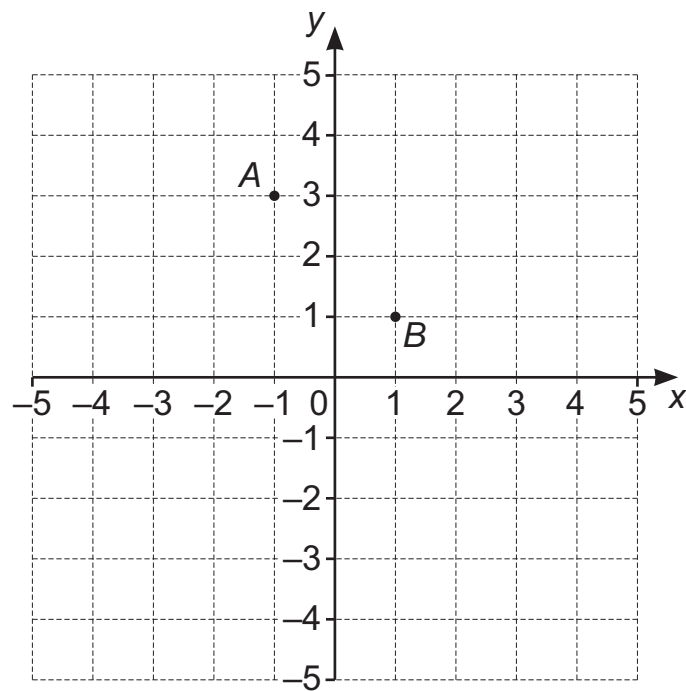
☐

Jamila's hair is 1 centimetre longer at the start of August than at the start of June.

☐

[1]

27 Here is a coordinate grid.



Mike draws a line on the grid.
Points A , B and C are on the line.
The coordinates of A are $(-1, 3)$.
The coordinates of B are $(1, 1)$.

Draw a ring around **all** the coordinates Mike could use for C .

$(1, 2)$

$(3, -1)$

$(-2, 3)$

$(5, 3)$

$(0, 2)$

[1]

28 Yuri has \$240

He spends $\frac{5}{8}$ of his money on a new bicycle.

Hassan has \$120

He wants to buy a bicycle that costs $1\frac{1}{2}$ times the amount of money he has.

Calculate the difference between the prices of the two bicycles.

\$ [2]

29 Safia writes a sequence by counting in steps of 3

The 8th term in her sequence is 32

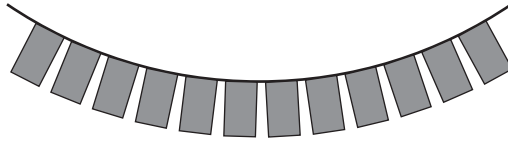
Gabriella writes a different sequence by counting in steps of 5

The 8th term in her sequence is 64

Write the difference between the first terms in their sequences.

..... [2]

30 Carlos makes flags to decorate his house.



He uses one-quarter of a metre of material to make 15 flags.

Calculate the amount of material he uses to make 75 flags.

..... metres [1]

31 A number line is marked in steps of constant size.

Write the correct number in each box.



[1]

32 Chen joins **three** squares to make a rectangle.

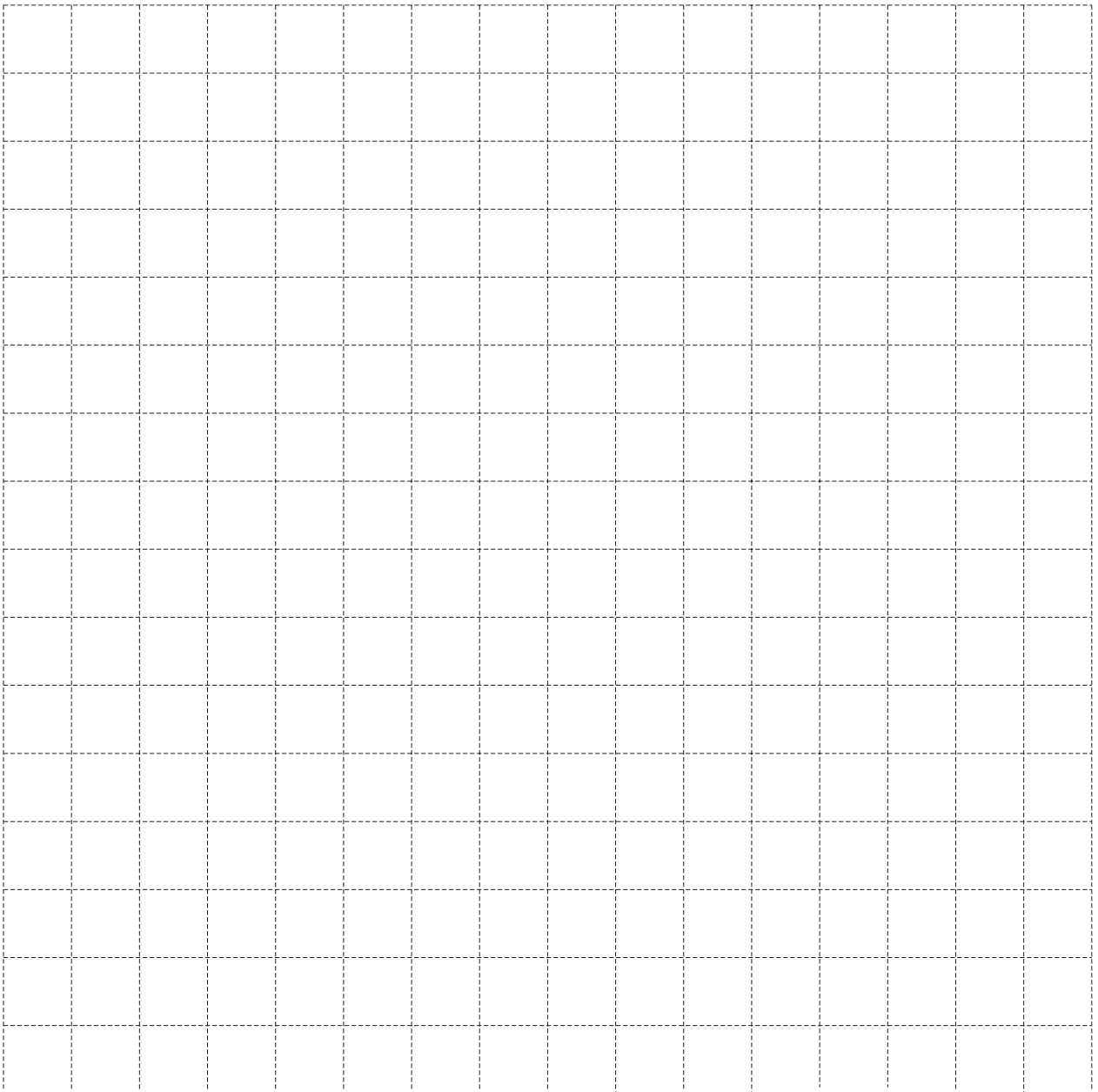


Not drawn to scale

The perimeter of the rectangle is 8 cm.

Chen adds three **more** squares to make a new shape.
The perimeter of the new shape is 12 cm.

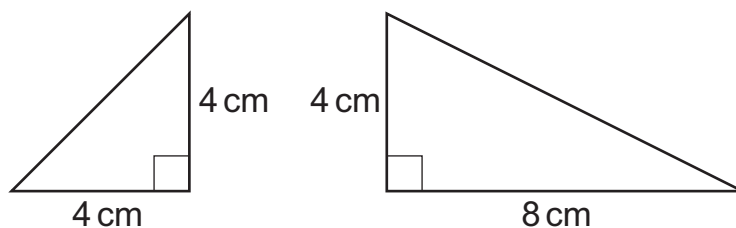
Sketch **two** new shapes that Chen could make.



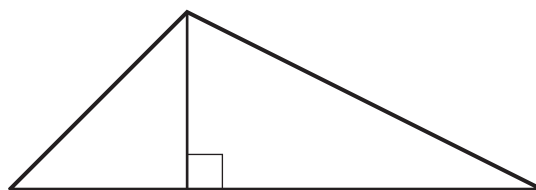
[2]

33 Here are two right-angled triangles.

Not drawn to scale



The triangles are joined together to make a large triangle.



Calculate the area of the large triangle.

..... cm^2 [1]

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MATHEMATICS

0096/01

Paper 1

October 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. Any blank pages are indicated.

1 Calculate

$$(3 + 2) \times 5$$

..... [1]

2 Chen subtracts $\frac{3}{10}$ from 7.5

Write his answer as a decimal.

..... [1]

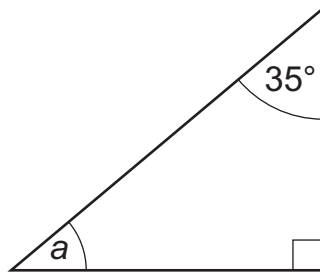
3 Complete the calculations.

$$0.07 \times 1000 =$$

$$216.3 \div 100 =$$

[1]

- 4 Here is a right-angled triangle.



Not drawn to scale

Calculate the size of the angle a .

..... ° [1]

- 5 Calculate

$$34.17 \div 17$$

..... [1]

- 6 A shop sells ribbons.

The length of each ribbon is 3.87 metres.

Calculate the **total** length of 6 ribbons.

..... metres [1]

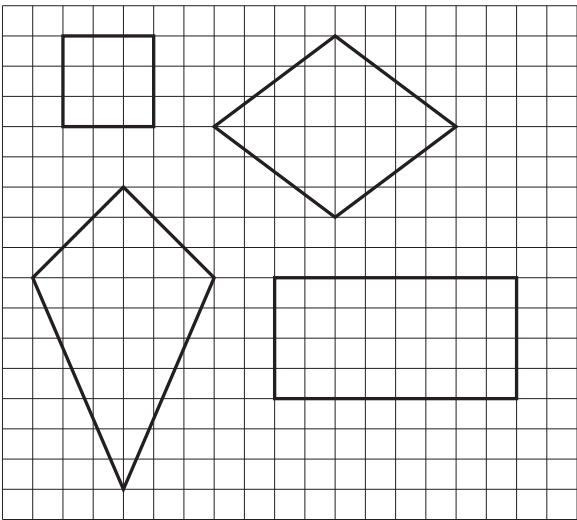
7 Here are four digits.

1 1 2 6

Use **all** the digits to write a four-digit number that is divisible by 4

..... [1]

8 Here are four shapes on a grid of squares.



Write the correct order of rotational symmetry for each shape in the table.

Shape	Order of rotational symmetry
square	
rhombus	
kite	
rectangle	

[2]

9 Eva has \$50

She puts 20% of her money in the bank.

Calculate how much money Eva puts in the bank.

\$ [1]

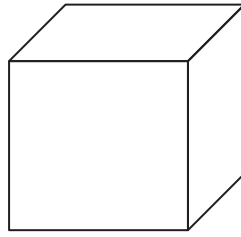
10 The table shows spelling test results for Oliver, Mike, Pierre and Carlos.

	Spelling test results				
Oliver	3	7	5		
Mike	5	5	6		
Pierre	1	0	5	2	1
Carlos	5	5	9	5	10

Draw a ring around the name of **each** child with a median score of 5

[1]

11 Here is a cube.



The area of one face of the cube is 10 cm^2 .

Calculate the surface area of the cube.

..... cm^2 [1]

12 Draw a ring around **each** of the numbers that are factors of 2664

2 3 4 5 6 8 9 10

[2]

13 Jamila plays a game of football.

She counts the number of goals she scores.

A, B, C, D and E are different events.

A	Jamila does not score a goal
B	Jamila scores exactly 1 goal
C	Jamila scores 2 goals or fewer
D	Jamila scores exactly 2 goals
E	Jamila scores more than 2 goals

Tick (✓) to show if the pairs of events are mutually exclusive or not mutually exclusive.

Pairs of events	Mutually exclusive	Not mutually exclusive
A and B		
B and C		
C and D		
D and E		

[2]

14 Gabriella has a piece of wood 4.2 metres in length.

She cuts off a length of 0.63 metres.

Calculate the length of the remaining piece of wood.

..... metres [1]

15 Tick (✓) to show if each sentence is possible or impossible.

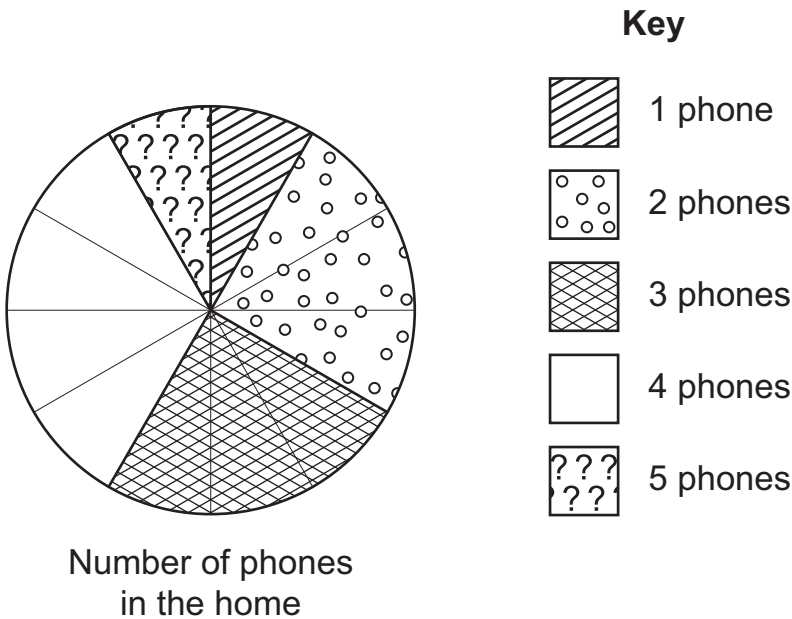
	Possible	Impossible
The volume of water in a jug is 500 ml and the capacity of the jug is 1 litre.		
The volume of water in a jug is 1 litre and the capacity of the jug is 600 ml.		
The volume of water in a jug is 600 ml and the capacity of the jug is 600 ml.		

[1]

16 Oliver predicts that half of his friends each have more than 3 phones in their home.

He asks his friends how many phones are in their homes.

He records the data in a pie chart with 12 equal sections.



Tick (✓) to show if Oliver’s prediction that half of his friends each have more than 3 phones in their home is correct.

☐ Yes

☐ No

Explain how you know.

[1]

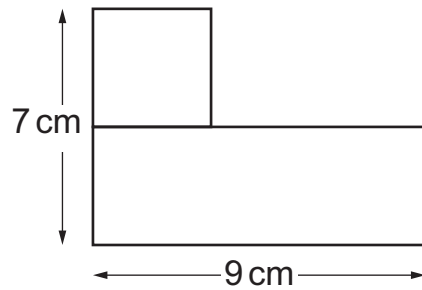
17 Ahmed can balance on one leg for 1.5 minutes.

Yuri can balance on one leg for 2.1 minutes.

Calculate how much longer Yuri can balance on one leg than Ahmed.
Write your answer in seconds.

..... seconds [1]

18 A square and a rectangle are joined to make a new shape.



Not drawn
to scale

Calculate the perimeter of the new shape.

..... centimetres [1]

- 19** Oranges are stored in trays.
There are 240 oranges in each tray.

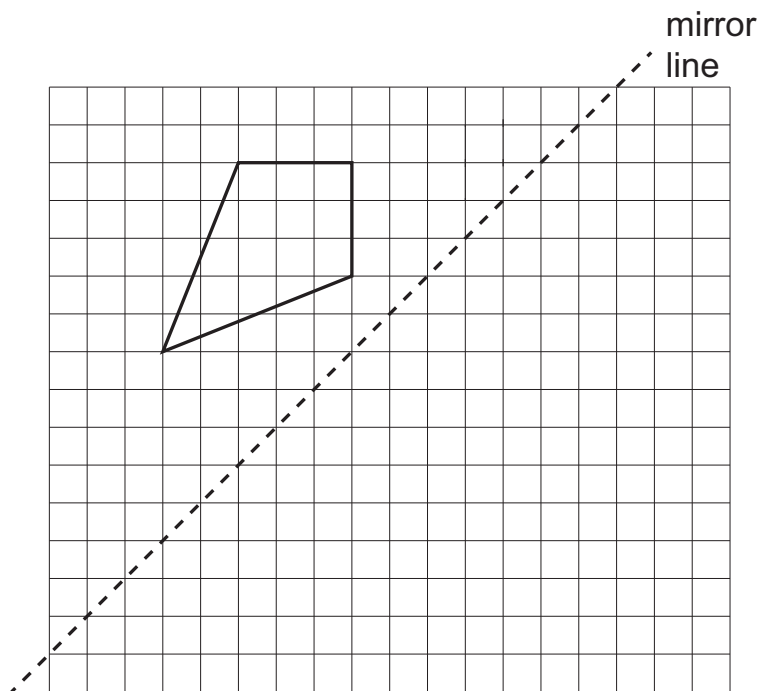
The trays are packed in boxes.
There are 5 trays in each box.

A shopkeeper buys 14 boxes.

Calculate the number of oranges the shopkeeper buys.
Show your working.

..... oranges [2]

- 20** Here is a shape drawn on a grid of squares.

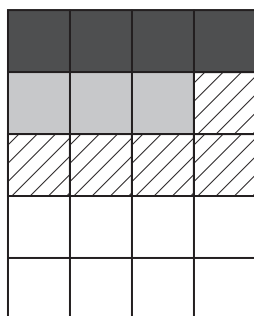


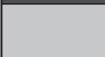
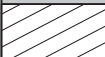
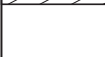
The shape is reflected in the mirror line.

Draw the reflection of the shape in the mirror line.

[1]

- 21** Here is a waffle diagram that shows the number of T-shirts of different colours in a shop.



Key	
	red
	yellow
	green
	blue

Draw a ring around the frequency table that shows the same information as the waffle diagram.

Colour of T-shirts	Frequency
red	4
yellow	6
green	5
blue	8

Colour of T-shirts	Frequency
red	8
yellow	6
green	5
blue	16

Colour of T-shirts	Frequency
red	4
yellow	3
green	5
blue	10

Colour of T-shirts	Frequency
red	8
yellow	6
green	10
blue	16

[1]

22 Pierre has some boxes of cakes.

There are 8 cakes in each box.

His friends eat $\frac{7}{2}$ boxes of cakes.

Calculate the number of cakes his friends eat.

..... cakes [1]

23 Draw a line to match each calculation to the correct length.

$\frac{1}{10}$ of 600 metres

$\frac{3}{10}$ of 100 metres

$\frac{5}{10}$ of 80 metres

$\frac{7}{10}$ of 100 metres

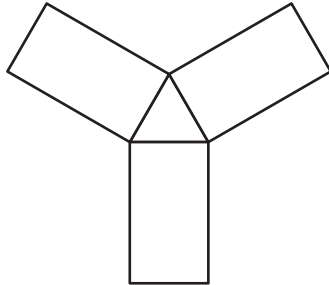
less than 50 metres

greater than 50
metres

[1]

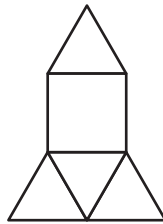
24 Angelique wants to sketch the nets of some 3D shapes.

(a) Complete the sketch of the net for a triangular prism.



[1]

(b) Here is the net for a 3D shape.



Write the name of the shape.

..... [1]

25 Four children in Class 6 collect data for their projects.

Each child shows their data using a **different** representation.

Draw a line to match the data collected to the correct representation.

Data collected	Representation
the temperature in the classroom measured every hour	dot plot
the heights of children in Class 6	line graph
the ages and heights of children in Class 6	scatter graph
the number of hours each child in Class 6 spends doing homework	frequency diagram for continuous data

[2]

26 Write the correct number in the box.

--

 $\div 10 \times 10 \times 100 \div 10 \times 10 = 870$

[1]

27 Calculate

$$\frac{6}{15} \div 3$$

..... [1]

28 Lily and Samira count on in steps of constant size.

They both start at the **same** number.

Here is part of Lily's sequence.

1st number	2nd number	3rd number	4th number
	7		15

Here is part of Samira's sequence.

1st number	2nd number	3rd number	4th number
		6	

Write the 4th number in Samira's sequence.

..... [1]

29 Here are three words.

always

sometimes

never

Choose the correct word to complete each sentence.

You may use each word once, more than once or not at all.

Two right angles make a half turn.

Two obtuse angles make a full turn.

Two acute angles make a right angle.

[1]

30 Write a number in each box to make the calculation correct.

$$\frac{\square}{3} + \frac{\square}{5} = \frac{16}{15}$$

[1]

31 Here is a number statement.

$$1.7 \times 8.47 + 8.3 \times 8.47$$

Write the answer.

..... [1]

32 Four bags contain only black and white balls.

Mia picks a ball at random from one of the bags.

Draw a line to match each probability to the correct bag.

25% chance Mia picks a white ball

2 out of 3 chance Mia picks a white ball



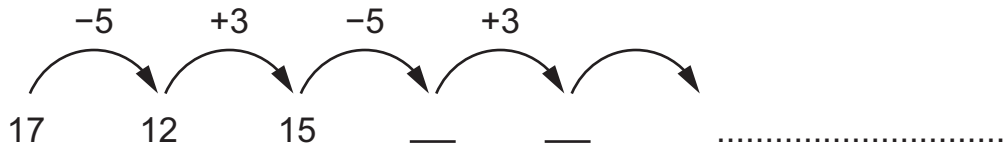
[1]

33 Rajiv counts from 17

He subtracts 5 to find the next number.

Then he adds 3 to find the next number.

The sequence continues in the same way.



Rajiv says, 'The number -2 is in my sequence.'

Tick (✓) to show if Rajiv is correct.

☐

Yes

☐

No

Explain how you know.

.....

.....

.....

[1]

34 Youssef plots the points $(-3, 2)$ and $(3, 2)$ on a coordinate grid.

He joins the points to make a straight line.

Tick ($\checkmark$) to show if the four points in the table are above Youssef's line, below his line or on his line.

Points	Above his line	Below his line	On his line
$(-3, 3)$			
$(2, 2)$			
$(3, -2)$			

[1]

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MATHEMATICS

0096/02

Paper 2

October 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 may 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 **24** pages. Any blank pages are indicated.

- 1 Round 15.21 to the nearest tenth.

..... [1]

- 2 Draw a line to match each fraction to the correct division.

	$11 \div 4$
$\frac{3}{4}$	$4 \div 3$
	$3 \div 4$
$1\frac{1}{4}$	$5 \div 4$
	$4 \div 5$

[1]

- 3 Mike rolls a fair 1 to 6 dice.

Here are two pairs of events.

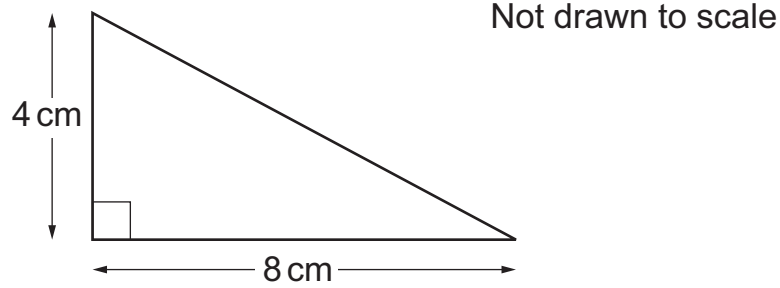
Mike rolls a 3 or Mike rolls an even number

Mike rolls a number less than 5 or Mike rolls a number greater than 5

Draw a ring around the most likely event in each pair.

[1]

- 4 Here is a right-angled triangle.

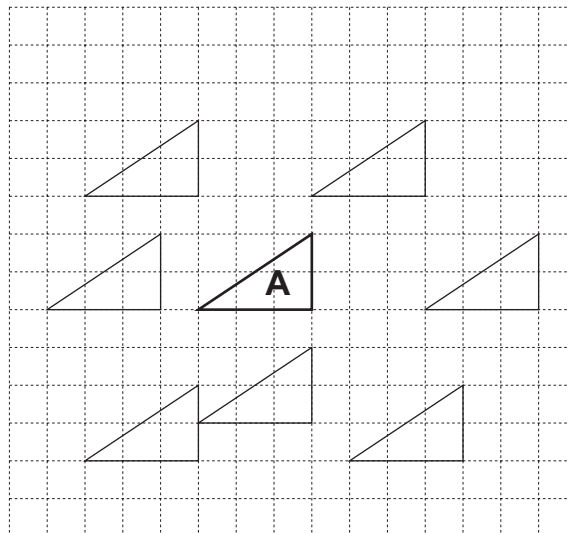


Calculate the area of the triangle.

..... cm^2 [1]

- 5 Here is a grid of squares.

Triangle A is translated horizontally on the grid.



Draw a ring around **all** the triangles which show possible new positions of triangle A.

[1]

- 6 Anastasia thinks of a number.

The number has

3 tens
2 ones
0 tenths
5 hundredths
1 thousandth

Write Anastasia's number.

..... [1]

- 7 Here are the heights of four children.

The heights are measured in centimetres.

134 140 142 144

- (a) Calculate the range of the heights.

..... centimetres [1]

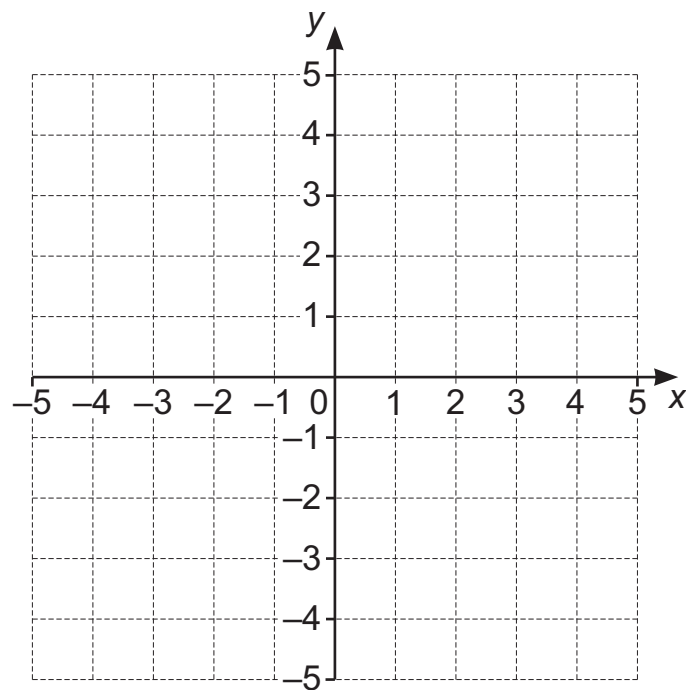
- (b) Calculate the mean height.

..... centimetres [1]

- 8 Write **two** fractions with a total of $\frac{6}{7}$

..... and [1]

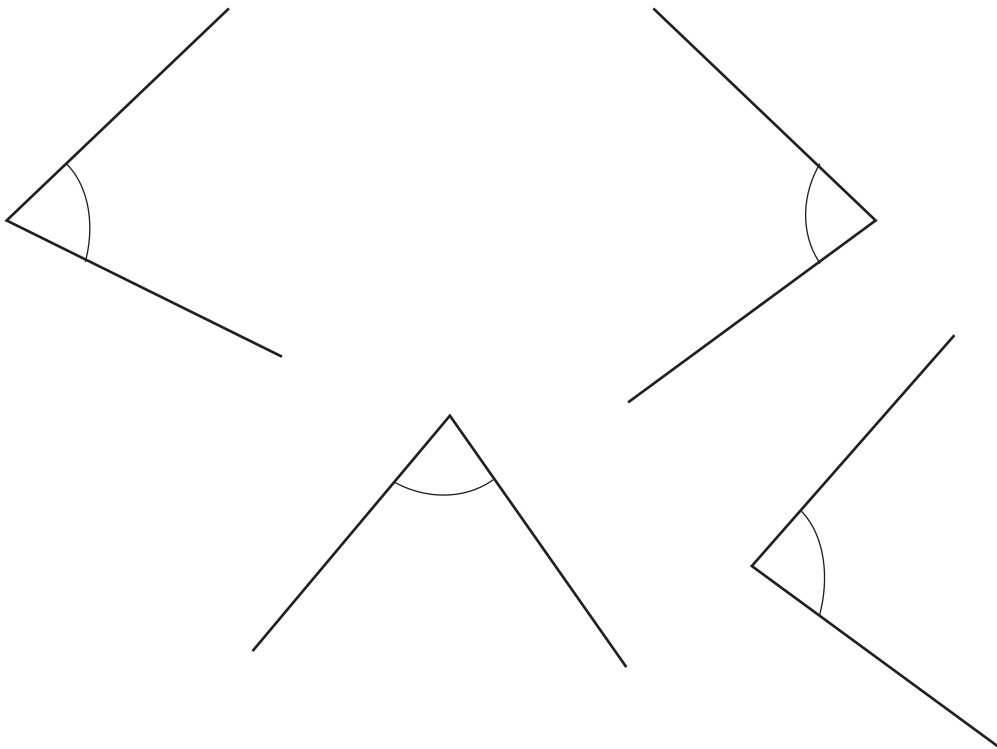
- 9 Here is a coordinate grid.



Plot the point $(-4, 3)$.

[1]

10 (a) Here are four angles.



Draw a ring around the angle that measures 75° .

[1]

(b) Draw an angle that measures 120° .
Label the angle.

[1]

11 Here are three symbols.

> < =

Write the correct symbol in each box.

You may use each symbol once, more than once or not at all.

$\frac{3}{5}$ 30%

60% 0.07

0.15 $\frac{1}{5}$

[2]

12 Yuri calculates $6 + 4 \times 2$

Yuri says,



Yuri is **not** correct.
He has used an incorrect method.

Explain the correct **method**.

.....
..... [1]

- 13** The temperature in Oslo is -4°C .
The temperature in Harbin is -14°C .

(a) Write the difference in temperature between Oslo and Harbin.

..... $^{\circ}\text{C}$ [1]

- (b)** The temperature in Helsinki is halfway between the temperatures in Oslo and Harbin.

Write the temperature in Helsinki.

..... $^{\circ}\text{C}$ [1]

- 14** Here is part of a number sequence.

The sequence continues in the same way.

	4	3.25	2.5	
--	---	------	-----	--

Write the correct numbers in the boxes to complete the sequence.

[1]

15 Safia and Hassan each grow a sunflower.

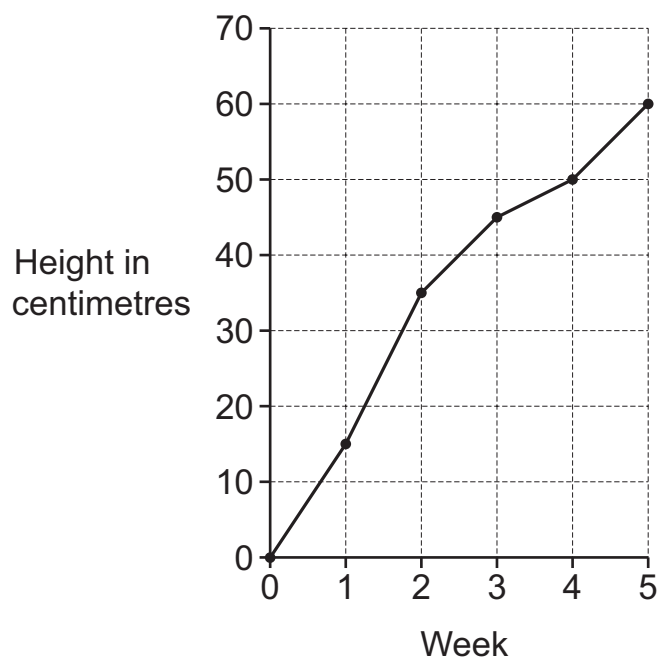
They measure the heights of their sunflowers at the beginning of each week.

(a) Here is Safia's data.

Safia's sunflower	
Week	Height in centimetres
0	0
1	15
2	35
3	40
4	50
5	60

Safia plots her data in a line graph.

Height of Safia's sunflower



One of her points is incorrect.

Draw a ring around the incorrect point on her graph.

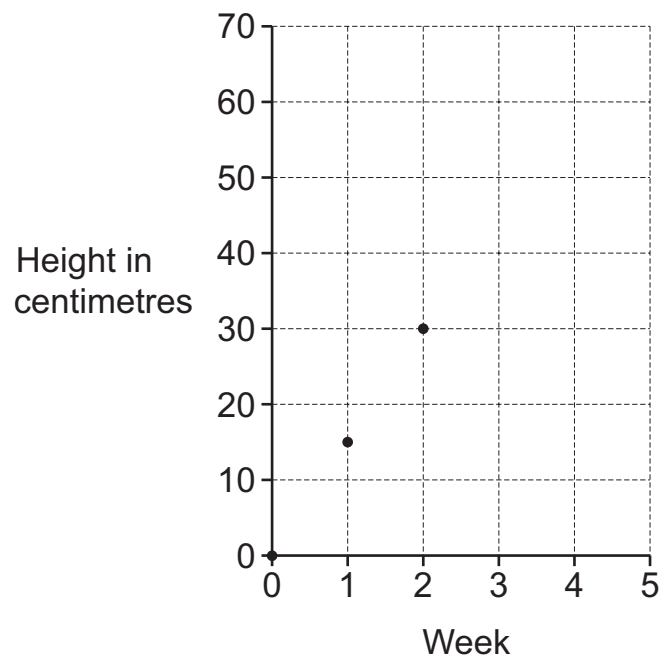
[1]

(b) Here is Hassan's data.

Hassan's sunflower	
Week	Height in centimetres
0	0
1	15
2	30
3	40
4	60
5	70

Complete the line graph for Hassan's sunflower.

Height of Hassan's sunflower



[1]

16 Ahmed says,



Tick (✓) to show if Ahmed is correct.

☐

Yes

☐

No

Explain how you know.

.....

..... [1]

17 Here are some statements about a circle.

	True	False
The circumference is longer than the radius.		
The diameter is longer than the circumference.		
The radius is twice as long as the diameter.		
The diameter is longer than the radius.		
The circumference is a straight line.		

Tick (✓) to show if the statements are true or false.

[2]

18 Gabriella has yellow sweets and red sweets.

1 in every 4 sweets is yellow.

She has 8 yellow sweets.

Calculate the number of red sweets Gabriella has.

..... [1]

19 (a) Write the **largest** number that is a factor of both 36 and 48

.....

[1]

(b) Write the **smallest** number that is a multiple of both 36 and 48

.....

[1]

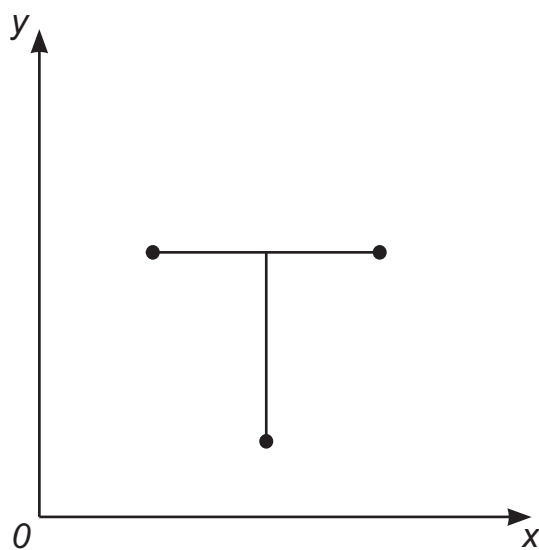
20 Tick (✓) **all** the expressions that are equivalent to 13.024

13 ones + 24 thousandths	
13 ones + 2 tenths + 4 thousandths	
$10 + 3 + 0.02 + 0.004$	

[1]

21 Naomi plots three points on a coordinate grid.

She joins the points to make the letter T.



Tick (✓) to show the set of Naomi's coordinates.

(3,7)	(6,2)	(9,7)	
(3,7)	(6,7)	(9,7)	
(3,7)	(6,9)	(9,7)	
(7,3)	(2,6)	(7,9)	
(7,3)	(7,6)	(7,9)	
(7,3)	(9,6)	(7,9)	

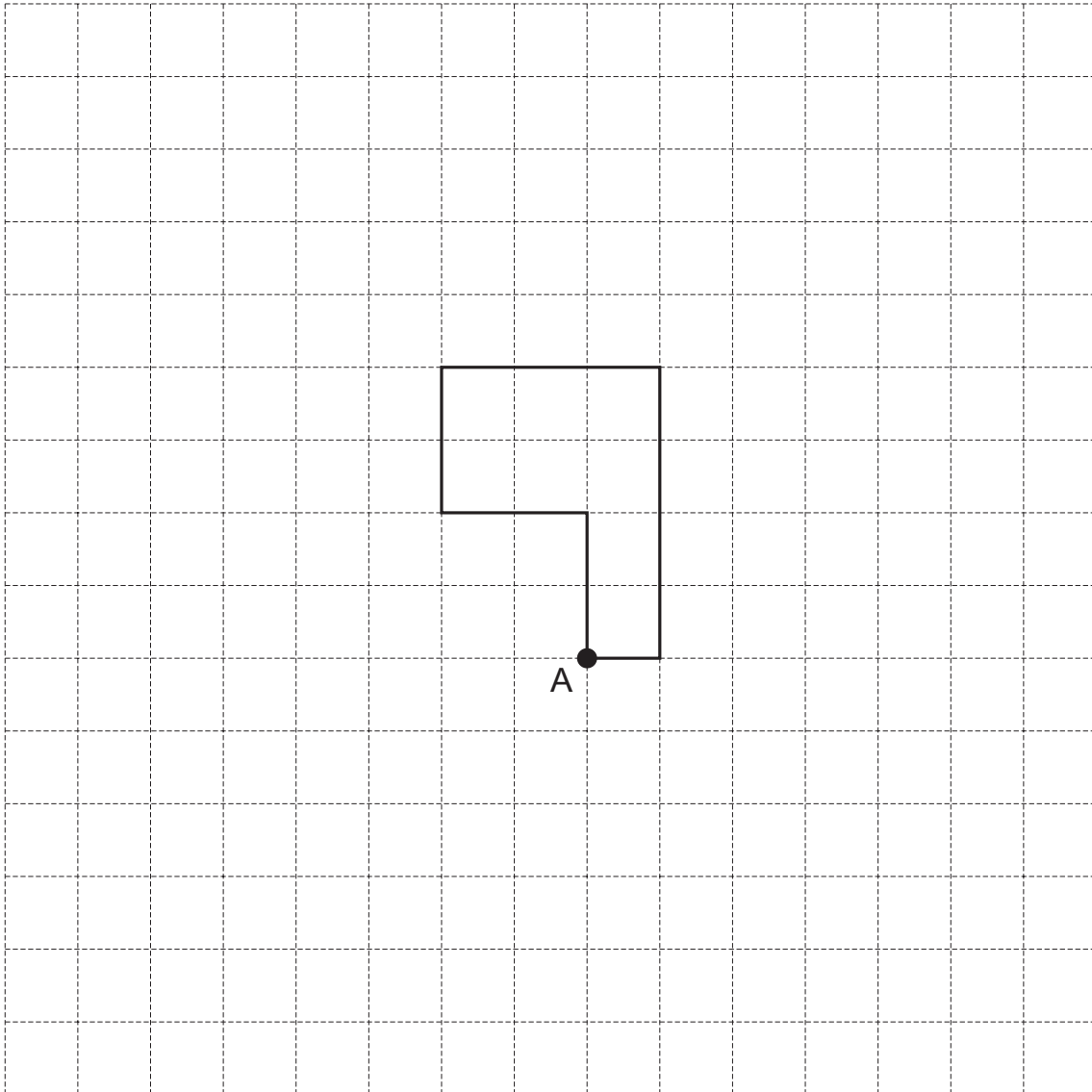
[1]

22 Draw **accurately** the set of points that are exactly 6 cm from point P.

• P

[1]

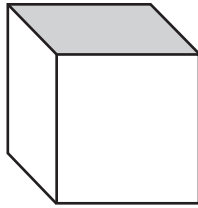
23 Here is a shape drawn on a grid of squares.



Rotate the shape 90° clockwise about the point A.

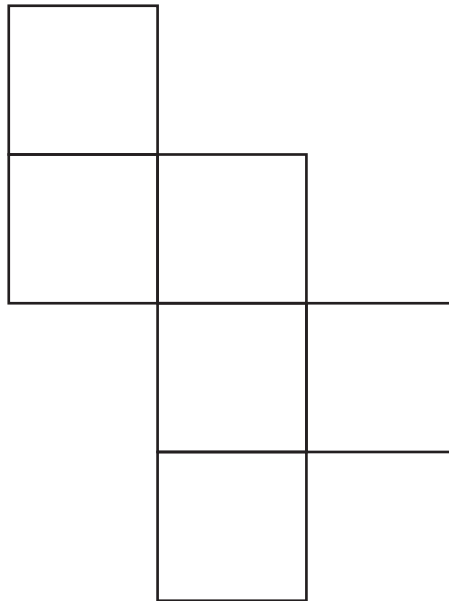
[1]

24 Here is a cube.



The top and bottom faces are grey.
The other faces are white.

Shade **two** faces to complete the net of this cube.



[1]

25 Oliver draws four different quadrilaterals.

Here are the names of his quadrilaterals.

kite

rectangle

rhombus

trapezium

Write each name **once** to complete the table.

Description of Oliver's quadrilateral	Name of Oliver's quadrilateral
exactly 4 right angles exactly 2 lines of symmetry	
exactly 1 right angle no parallel sides	
exactly 2 right angles diagonals are not equal lengths	
no right angles diagonals are not equal lengths	

[2]

26 Carlos chooses two **different** numbers.

Each number has two digits.

Each number rounds to 4 when rounded to the nearest whole number.

Carlos adds his two numbers.

The total rounds to 9 when rounded to the nearest whole number.

Write **two** possible numbers that he chooses.

..... and [1]

27 Pierre has some \$1 notes **and** some \$2 notes.

The total value of the notes is \$50

g represents the number of \$1 notes Pierre has.

h represents the number of \$2 notes Pierre has.

(a) Write the value of **g** when **h** is 10

..... [1]

(b) Write the largest possible value of **h**.

..... [1]

28 Lily rolls two dice.

She looks at both numbers.

She calculates the difference between the two numbers.

She does this 100 times.

Here are the results.

Differences	Frequency
0	17
1	30
2	22
3	16
4	10
5	5

Write the correct number in each space to complete the sentences.

The probability of a difference of 5 is half the probability of a difference of

..... .

There is almost a 50% chance of getting a difference of
or less.

The probability of a difference of is about the same as the
probability of a difference of

[2]

29 Jamila writes the sequence of square numbers.

1 4 9 ...

She makes a **new** sequence by squaring each number in the sequence.

1 16 81 ...

Write the 7th term in her **new** sequence.

..... [1]

30 Mia has some 10 cent coins and some 50 cent coins in a jar.

She has a total of 20 coins.

For every two 10 cent coins she has three 50 cent coins.

Calculate the total amount of money in the jar.

..... cents [1]

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MATHEMATICS

0096/01

Paper 1

April 2023

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 **16** pages. Any blank pages are indicated.

1 Calculate.

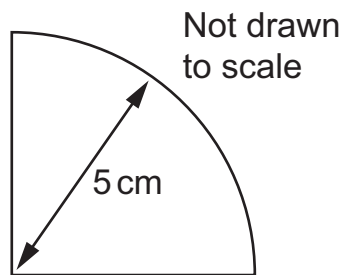
(a) $75 \times 5 \times 2 + 65$

..... [1]

(b) $8 + (3 + 2) \times 7$

..... [1]

2 Youssef folds a paper circle to make a new shape.



Write the length of the diameter of the circle.

..... cm [1]

3 Write 2.5 hours in minutes.

..... minutes [1]

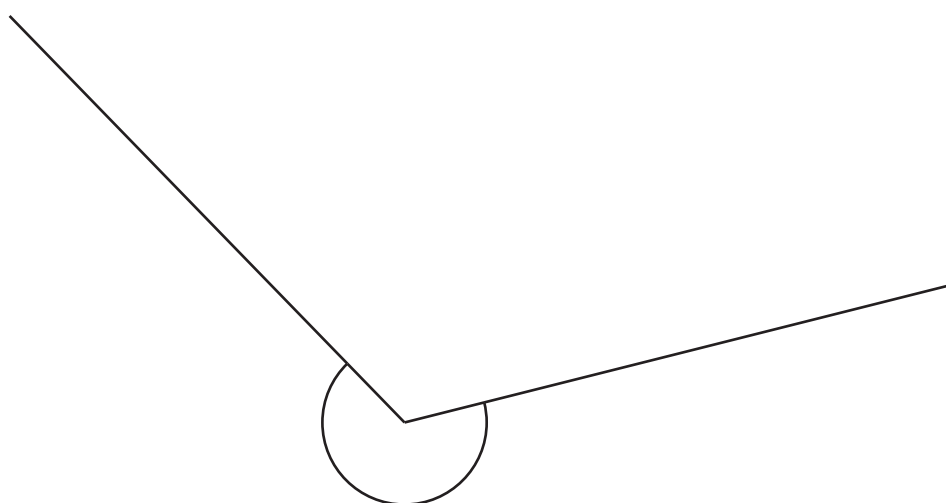
4 Complete the calculation.

$$\frac{1}{2} \div 3 = \boxed{}$$

[1]

5 Use a protractor to measure the size of the marked angle.

Write the answer.



.....° [1]

6 (a) Here is a list of numbers.

1 3 7 11 13 17 21 23 27

Draw a ring around a common **multiple** of 3 and 7

[1]

(b) Here is a list of numbers.

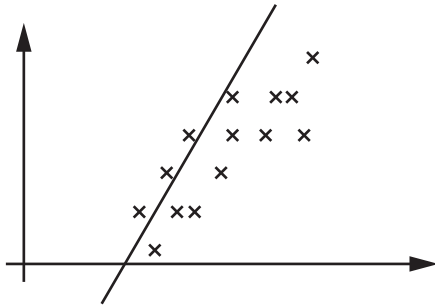
2 4 6 22 24 26 32 34 36

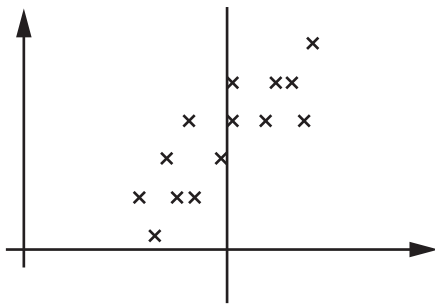
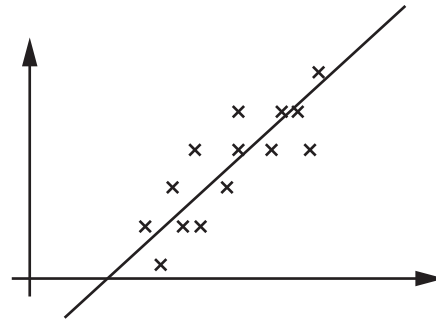
Draw a ring around a common **factor** of 4 and 6

[1]

7 Anastasia draws a line of best fit on a scatter graph.

(a) Tick (✓) the graph with the correct line of best fit.


☐

☐

☐

☐

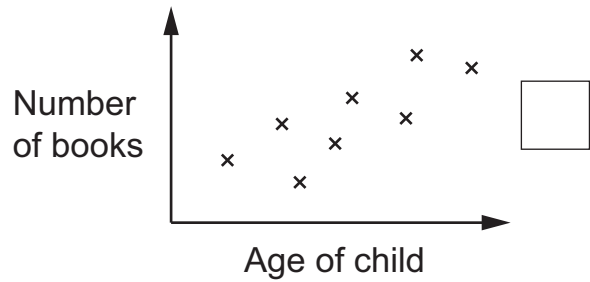
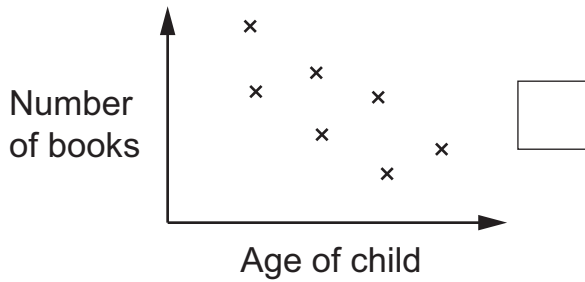
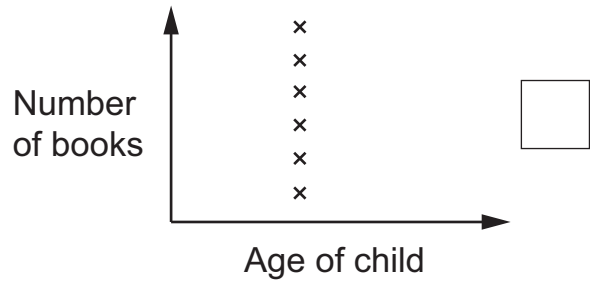
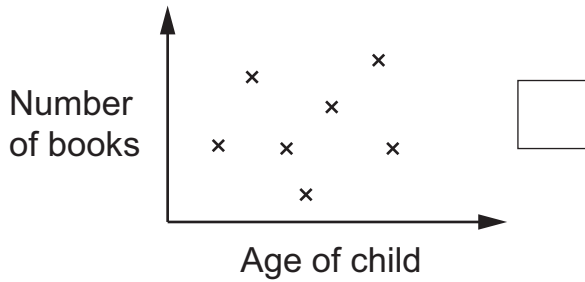
[1]

(b) Jamila draws a different scatter graph.

She plots the age of each child in her class against the number of books they read.

She thinks there is **not** a connection between age and the number of books each child reads.

Tick (✓) the scatter graph that supports Jamila's idea.



[1]

8 Here are two negative numbers.

-25

-10

Add the two numbers.

Write the answer.

..... [1]

9 Calculate.

(a) $\frac{2}{3}$ of 18

..... [1]

(b) $\frac{3}{2}$ of 24

..... [1]

10 Complete.

(a) $141.56 + 13.213 =$

[1]

(b) $17.512 -$ $= 4.3$

[1]

11 Here are six number cards.

10	100	1000
10	100	1000

Use **three** cards to complete the statement.

$$6.2 \div \boxed{} \div \boxed{} = 6.2 \times 10 \div \boxed{}$$

[1]

12 Pierre wants to produce a representation of his data.

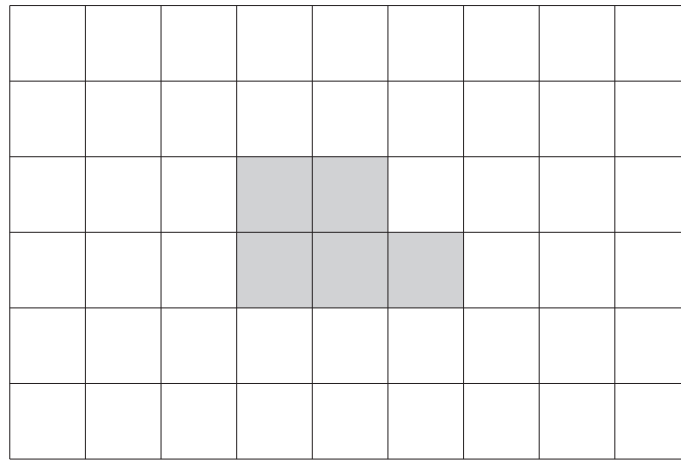
Draw a line to match the data to the correct representation.

Number of plants in gardens	
Heights of people	bar chart
Number of cars in car parks	
Colour of cars in car parks	frequency diagram
Length of people's feet	

[2]

13 Shade the **smallest** number of squares to create a shape that has

- rotational symmetry of order 2
- no lines of symmetry.



[1]

14 Eva and Lily each have some flowers.

The number of flowers that Eva has is represented by the letter A.

The number of flowers that Lily has is represented by the letter B.

Eva has more flowers than Lily.

They have 20 flowers altogether.

Tick (✓) all the correct pairs of numbers.

A	B	
17	3	☐
14	12	☐
24	-4	☐
11	9	☐
8	12	☐

[2]

- 15** Write the calculations in order of the size of the answer.
Start with the **smallest**.

123×70

1234×7

12×700

.....

smallest

.....

.....

largest

[1]

- 16** Hassan draws a straight line joining the points (1, 2) and (9, 2).

Draw a ring around **all** the points that are on his line.

(2, 1)

(7, 2)

(2, 2)

(8, 2)

(2, 6)

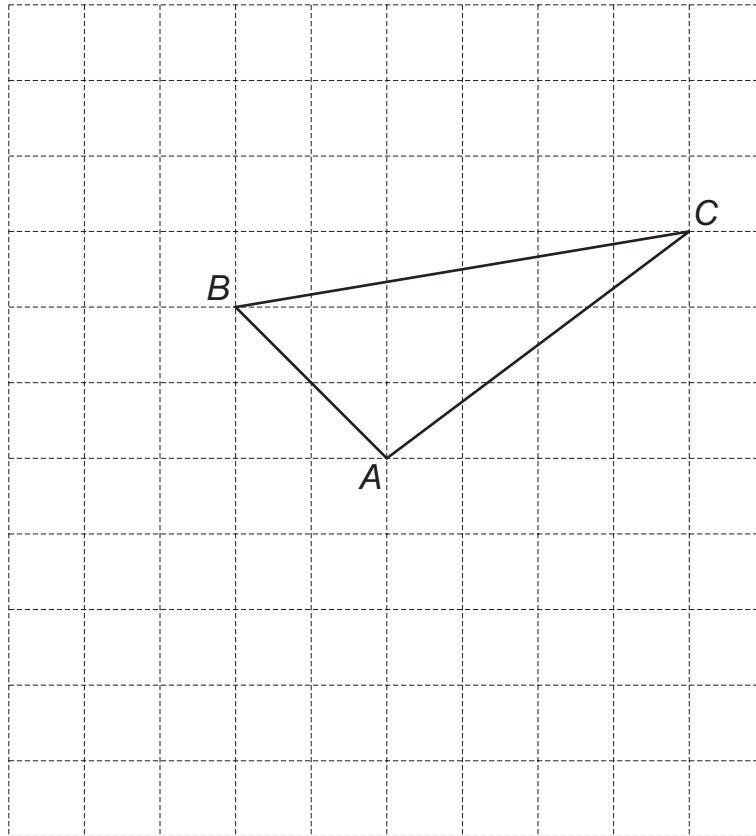
[1]

- 17** Safia starts at 52 and counts backwards in sevens.
Mia starts at -10 and counts forwards in nines.

Write the number that they both say.

..... [1]

18 Here is a grid of squares.



Rotate the triangle 90° **anticlockwise** about point A.

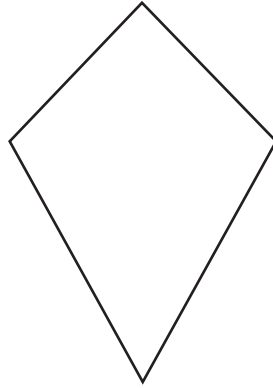
[2]

19 Calculate.

$$32.723 + \frac{60}{1000}$$

..... [1]

20 Here is a diagram of a kite.



Tick (✓) **all** of the correct statements.

This kite can be made with

2 identical scalene triangles

☐

2 identical equilateral triangles

☐

2 different isosceles triangles

☐

2 different equilateral triangles

☐

[1]

21 Give an example of a data collection that is best represented by a line graph.

.....

..... [1]

22 Naomi thinks of a number.

The number rounds **up** when rounded to the nearest tenth.

The number rounds **down** when rounded to the nearest whole number.

Complete Naomi's number.

3	.		
---	---	--	--

[1]

23 Here is part of a sequence.

.....	1.6	.....	0.4	.....
	2nd term		6th term	

The sequence is made by subtracting a constant amount from the previous term.

Write the 8th term.

Show your working.

..... [2]

24 Yuri uses a computer to model the roll of **two** dice 1000 times.
He records the results when the computer program rolls a 6 on either dice.
Here are his results.

Number on one dice	Number on other dice	Frequency
6	1	56
6	2	57
6	3	57
6	4	58
6	5	59
6	6	28

(a) Yuri adds the numbers on his two dice.

Complete the sentence.

When Yuri rolls a 6 the **total** on the dice that occurs least often is [1]

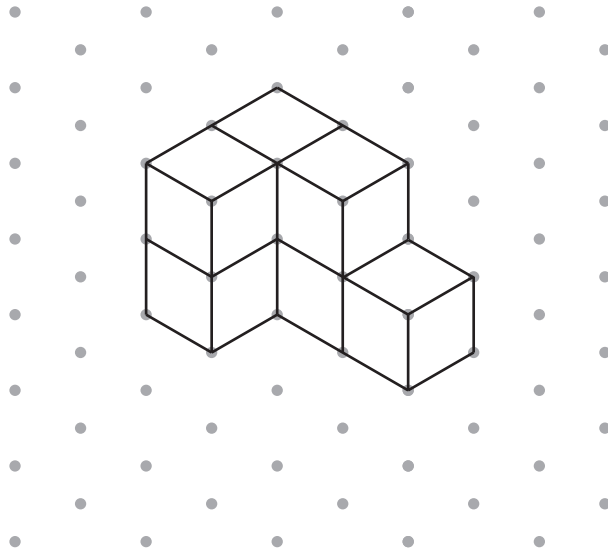
(b) Yuri uses this data to predict the likelihood of rolling a 1 on **both** dice.

Draw a ring around the word that correctly describes this likelihood.

impossible unlikely even chance likely certain

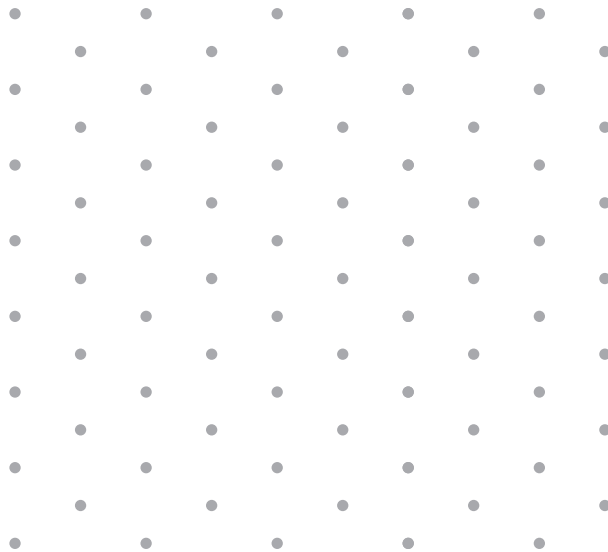
[1]

- 25** Here is a drawing of a shape on isometric paper.
The shape is made of seven cubes joined together.



Angelique draws another shape.
She joins the two shapes to make the smallest cuboid that she can.

Draw **Angelique's** shape.



[2]

- 26** Chen has four digit cards.
He says,

'All the numbers I could make with my four cards are 4-digit numbers that are divisible by 6'

Write four numbers that Chen could have on his cards.

--	--	--	--

[1]

- 27** Rajiv and Carlos each choose a set of three prime numbers.
The total of each set of numbers is 30

(a) Write three numbers that Rajiv could choose.

.....

[1]

(b) Write the number that both Rajiv and Carlos **must** have in their set.

.....

Explain your answer.

.....

 [1]

28 Here are six digit cards.

1	3	5	6	7	8
---	---	---	---	---	---

Use the digit cards to write the calculation with the largest even answer.

			-				= largest even answer
--	--	--	---	--	--	--	-----------------------

[1]

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MATHEMATICS

0096/02

Paper 2

April 2025

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 may 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 Write a number in the box to make this statement correct.

$$\frac{\boxed{}}{100} = 0.25$$

[1]

- 2 Here are the first four terms of a sequence.
The sequence continues in the same way.

1 4 9 16

Write the 8th term of this sequence.

..... [1]

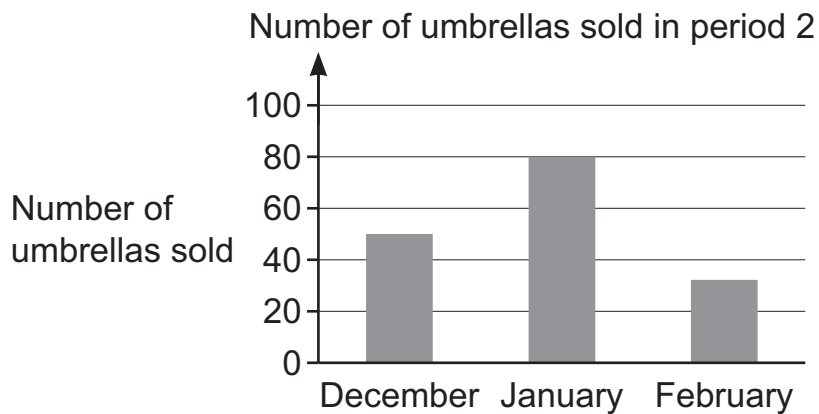
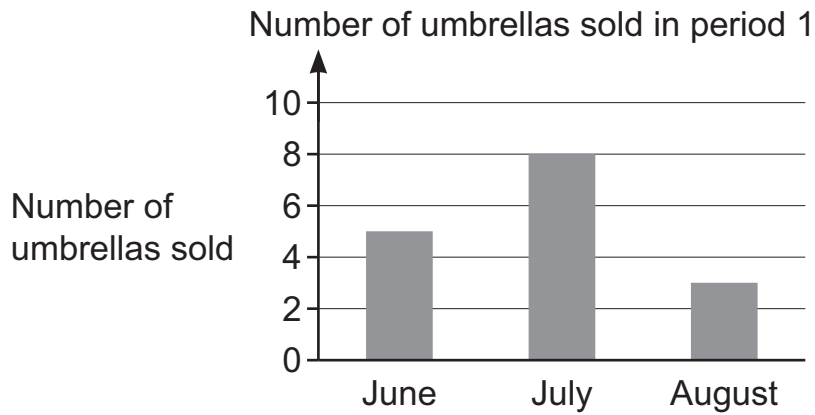
- 3 The mass of a chair is 30 kilograms.

The mass of a bookcase is $\frac{5}{3}$ of the mass of the chair.

Calculate the mass of the bookcase.

..... kilograms [1]

- 4 A shopkeeper records the number of umbrellas she sells each month. The bar charts show the data for two different time periods of three months.



The shopkeeper says, 'I sell the same number of umbrellas in period 1 as I sell in period 2.'

The shopkeeper is **not** correct.

Explain how you know **without** calculating the number sold.

.....

.....

..... [1]

- 5 Here are some numbers.

11.50

11.55

10.05

10.95

11.05

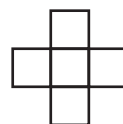
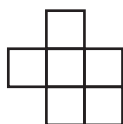
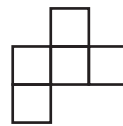
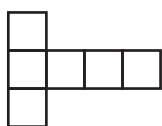
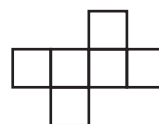
Write these numbers in order of size, starting with the smallest.

.....
smallest

.....
largest

[1]

- 6 Draw a ring around **each** of the diagrams that are a net of a closed cube.



[1]

- 7 A bag contains 5 green sweets, 3 yellow sweets and 2 pink sweets.
Chen picks a sweet from the bag.

Complete the sentence.

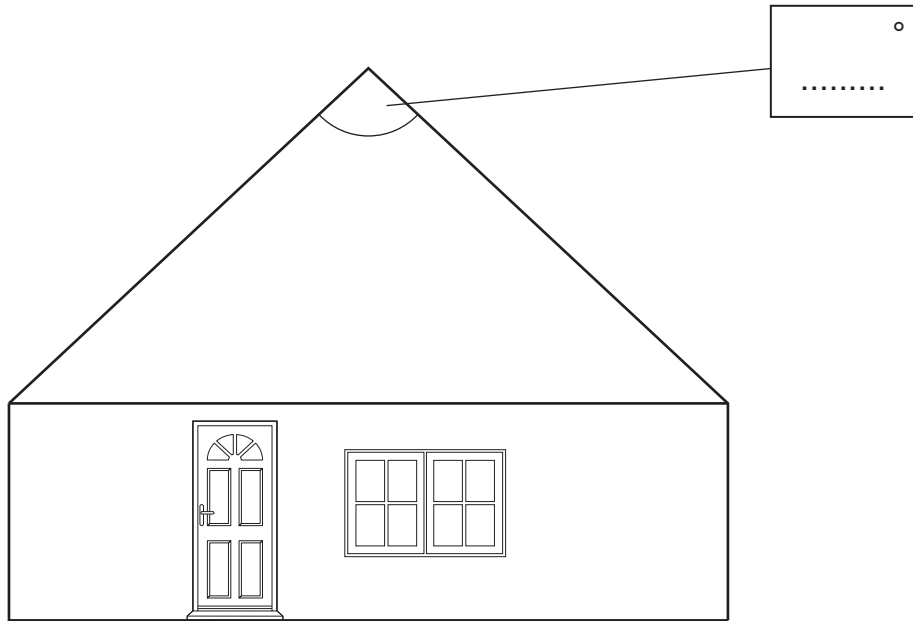
The chance that Chen picks a yellow sweet is out of [1]

- 8 Insert **one** pair of brackets to make the calculation correct.

$$25 + 5 \times 2 = 60$$

[1]

- 9 (a) Here is a drawing of a house.



Measure the angle at the top of the house.
Write your answer in the box.

[1]

- (b) Here is a drawing of a different house.

Not drawn to scale

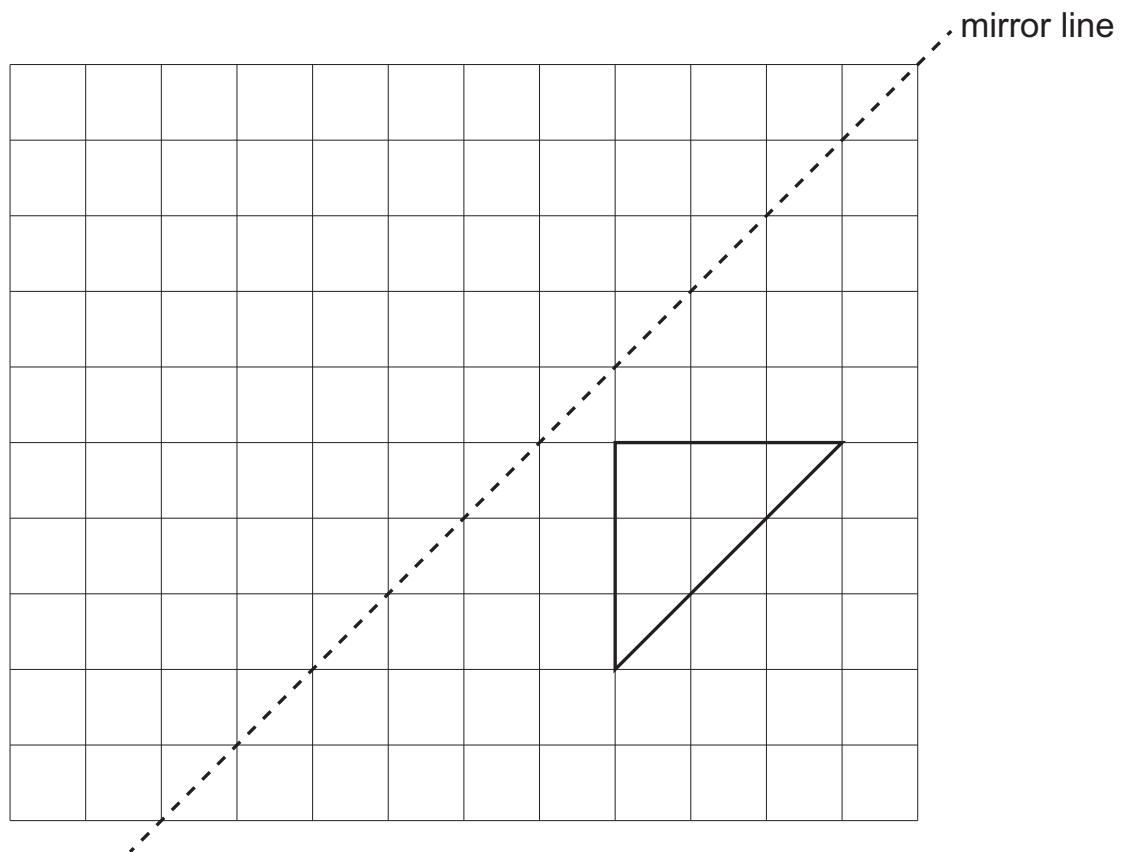


The drawing of the house has one line of symmetry.
The angle at the top of the house is 100° .

Write the sizes of the **two** marked angles in the boxes.

[1]

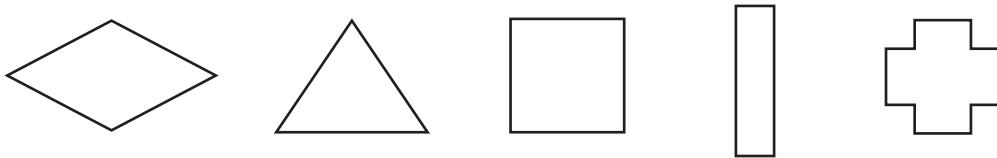
10 Here is a triangle drawn on a grid of squares.



Reflect the triangle in the mirror line.
Draw the reflection.

[1]

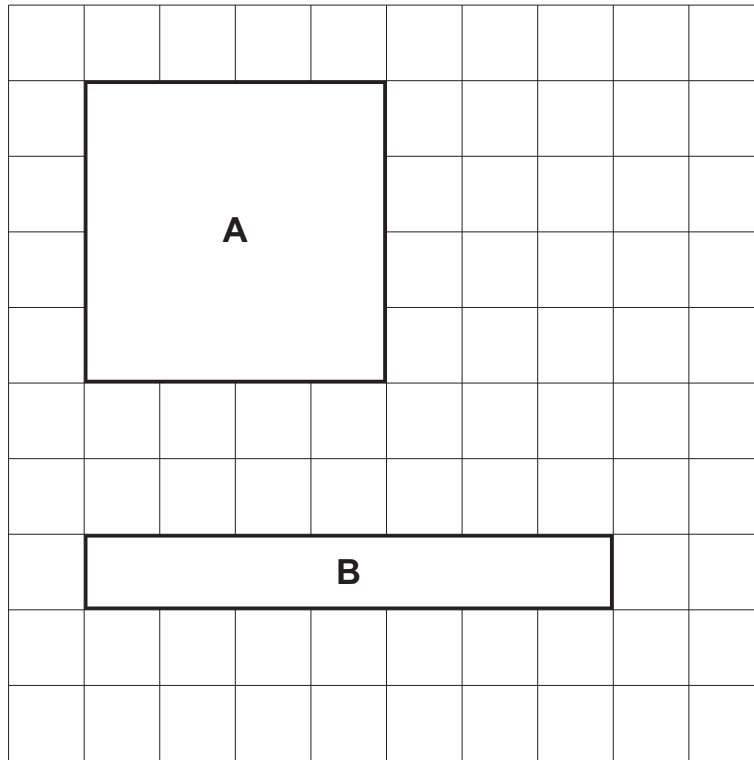
11 Here are some 2D shapes.



Draw a ring around **each** shape with rotational symmetry of order 2

[1]

- 12** Here are two shapes drawn on a grid of 1 cm squares.
The shapes are labelled A and B.



Use the symbol $<$ or $=$ or $>$ to make each of these statements correct.

area of A area of B

perimeter of A perimeter of B

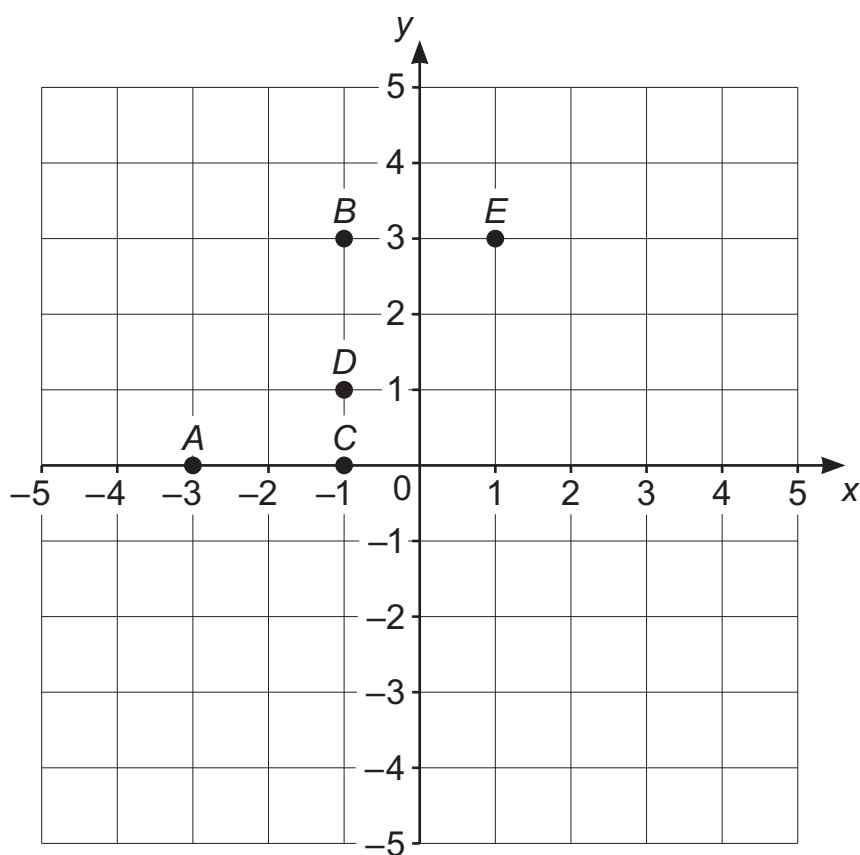
[1]

- 13** Write a number in the box to make the statement correct.

$$4^{\boxed{}} = 64$$

[1]

14 Here is a centimetre coordinate grid.



Mia plots points A , B , C , D and E on the grid.

(a) Write the coordinates of point D .

(..... ,) [1]

(b) Mia draws a circle with centre D and radius 2 cm.
One of the points is on the circumference of the circle.

Write the letter of the point that is on the circumference of the circle.

..... [1]

- 15** Angelique has a 2 litre bottle.
She pours 1 litre of water into her bottle.

Complete the sentence using **two** of these options.

bottle

water

1 litre

3 litres

The **volume** of Angelique's is
[1]

- 16** Here are some pairs of activities.

	Mutually exclusive	Not mutually exclusive
dream and sleep		
read and sleep		
move and sleep		
cook and sleep		

Tick (✓) to show if each pair of activities is mutually exclusive or not mutually exclusive.

[1]

- 17** A race starts at 9 am.
Carlos crosses the finish line 4.25 hours later.

Write the time when Carlos crosses the finish line.

..... [1]

- 18** Draw a ring around **each** number that rounds to 5.0 when rounded to the nearest tenth.

4.45

5.50

5.01

5.11

4.95

4.55

[1]

- 19** Gabriella wants to find out if the children in Class R have a greater number of pets than the children in Class S.
She asks each child, 'What pets do you have?'

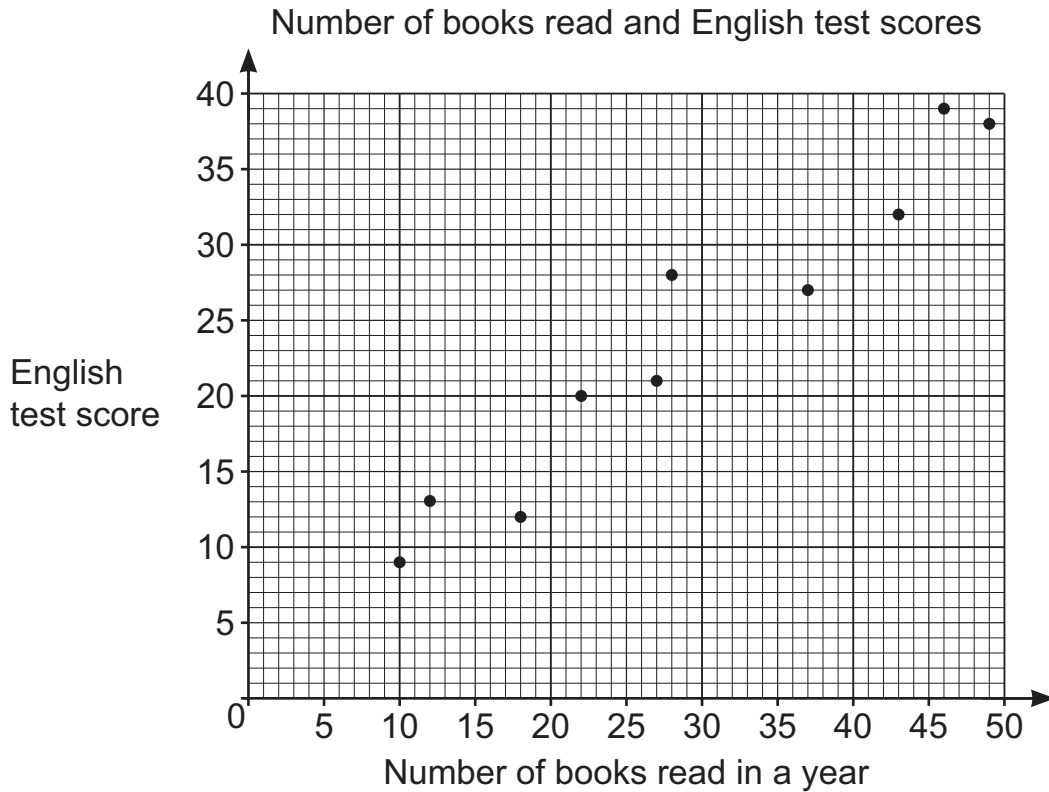
Explain **one** disadvantage of Gabriella's question.

.....
.....
..... [1]

- 20** A teacher wants to know if there is a connection between the number of books that a child reads and their English test score.

He asks some children how many books they read in a year.
He records their English test scores.

He creates a scatter graph from the data he collects.



- (a)** Ahmed reads 30 books and scores 35 on the English test.

Plot a point on the graph to show this information.

[1]

- (b)** Complete the sentence.

The data shows that as the number of books read in a year increases
the English test score tends to

[1]

21 Draw lines to match the values with the correct digit in the number 5555.555

5 hundredths

5 tens

5 ones

5 thousandths

5	5	5	5	.	5	5	5
---	---	---	---	---	---	---	---

[1]

22 An orange costs 60 cents.
An apple costs 15% less.

Calculate the price of an apple.
Show your working.

..... cents [2]

23 Here is a data set.

3 5 5 5 7 8 9

Draw a line to the correct number to complete **each** sentence.

The mode is...

5

The median is...

6

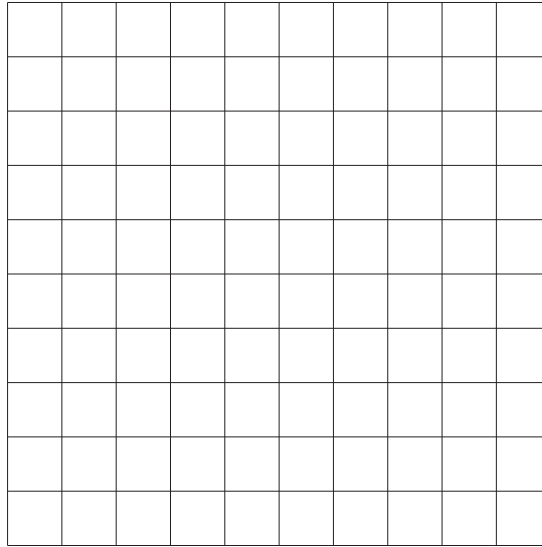
The mean is...

7

The range is...

[2]

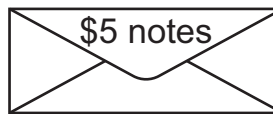
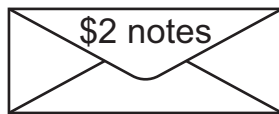
24 Here is a grid of squares.



Draw a quadrilateral with exactly **one** line of symmetry.
Use a ruler.

[1]

25 Eva has some \$2 notes and some \$5 notes.
She keeps them in two separate envelopes.



A represents the **total amount** in the envelope that contains the \$2 notes.
B represents the **total amount** in the envelope that contains the \$5 notes.

$$A + B = \$25$$

Write a possible pair of values for A and B.

A = \$

B = \$

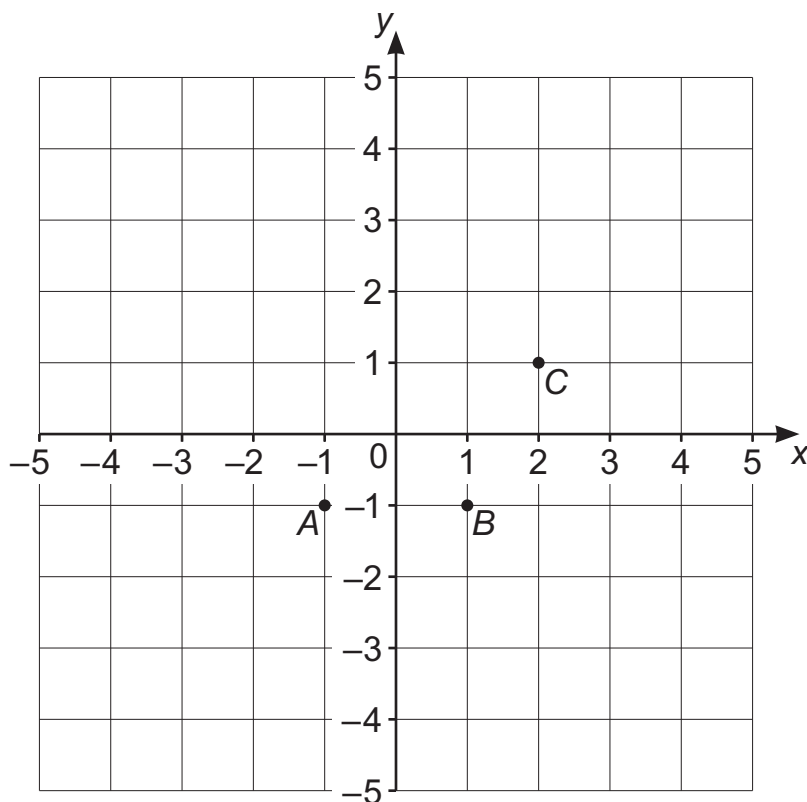
[1]

26 Complete the table.

	Common factor	Common multiple
4 and 10	.....	.....
..... and	5	30

[2]

27 Here is a coordinate grid.

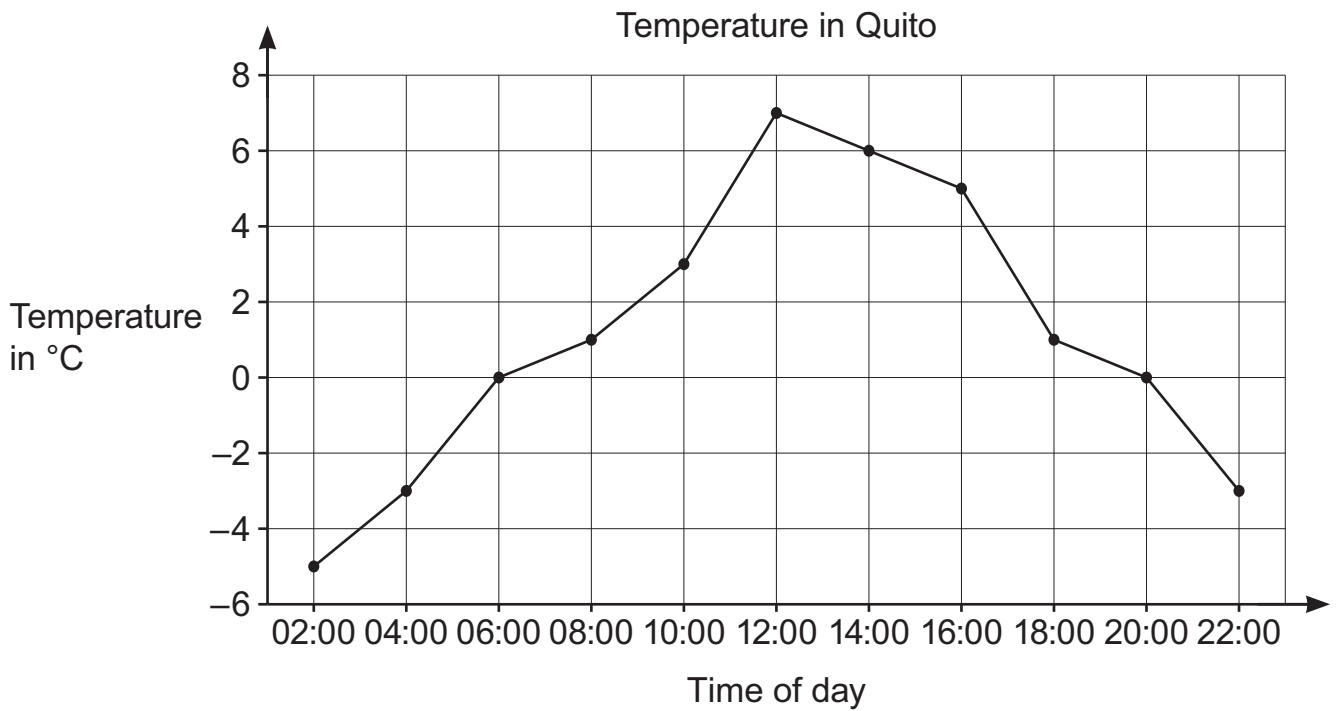


Points *A*, *B* and *C* are three vertices of a parallelogram.
Point *D* completes the parallelogram *ABCD*.

Write the possible coordinates of point *D*.

$D = (\text{.....} , \text{.....})$ [1]

28 Here is a graph which shows the temperature in Quito during part of a day.



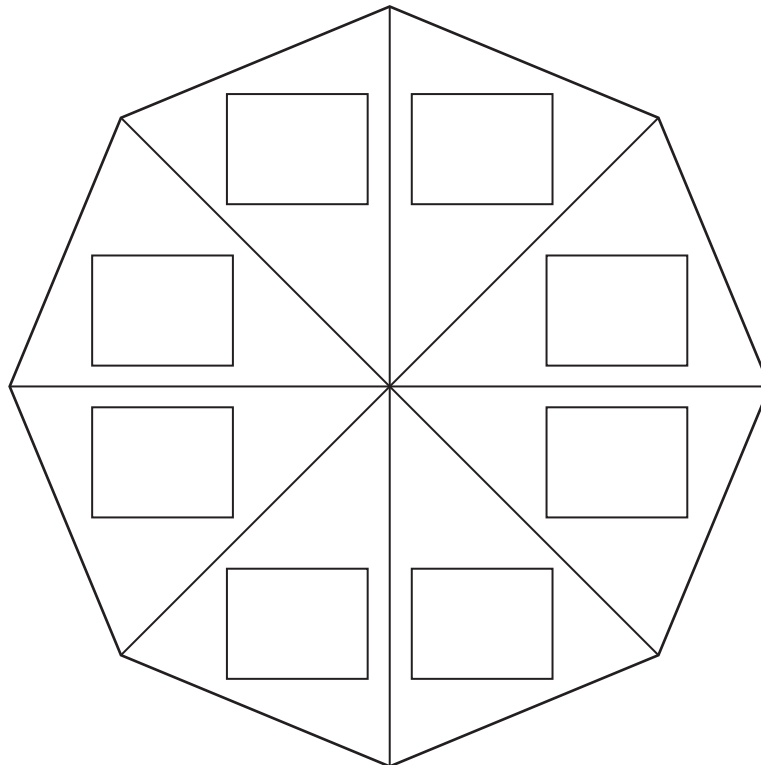
Write the number of hours it takes for the temperature to decrease from 7°C to 0°C .

..... hours [1]

- 29** Naomi makes a spinner.
She uses the numbers 1, 2, 3 and 4

Naomi says,

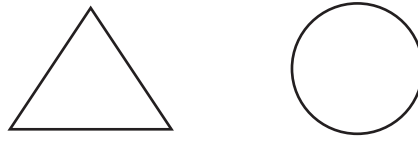
1 and 2 are equally likely outcomes for my spinner.
3 is the most likely outcome for my spinner.
4 is the least likely outcome for my spinner.



Write the numbers 1, 2, 3 and 4 in the boxes on the spinner to make Naomi's statements correct.

[1]

30 Here are two shapes.



Each shape represents a whole number between 1 and 10

Yuri writes this statement.

$$\triangle + \triangle + \triangle + \bigcirc = 27$$

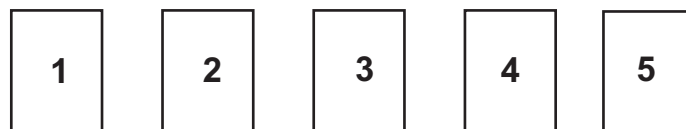
Write a value for each shape so that Yuri's statement is correct.

$$\triangle = \dots\dots\dots$$

$$\bigcirc = \dots\dots\dots$$

[1]

31 Here are five number cards.

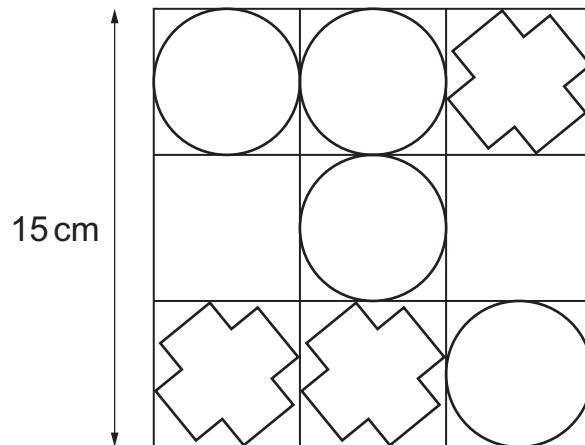


Use **three** of the number cards to make this calculation correct.
Each card can only be used once.

$$\square + \square \times \square = 16$$

[1]

- 32** Here is a picture of a pattern.
It contains four identical circles and three identical crosses.



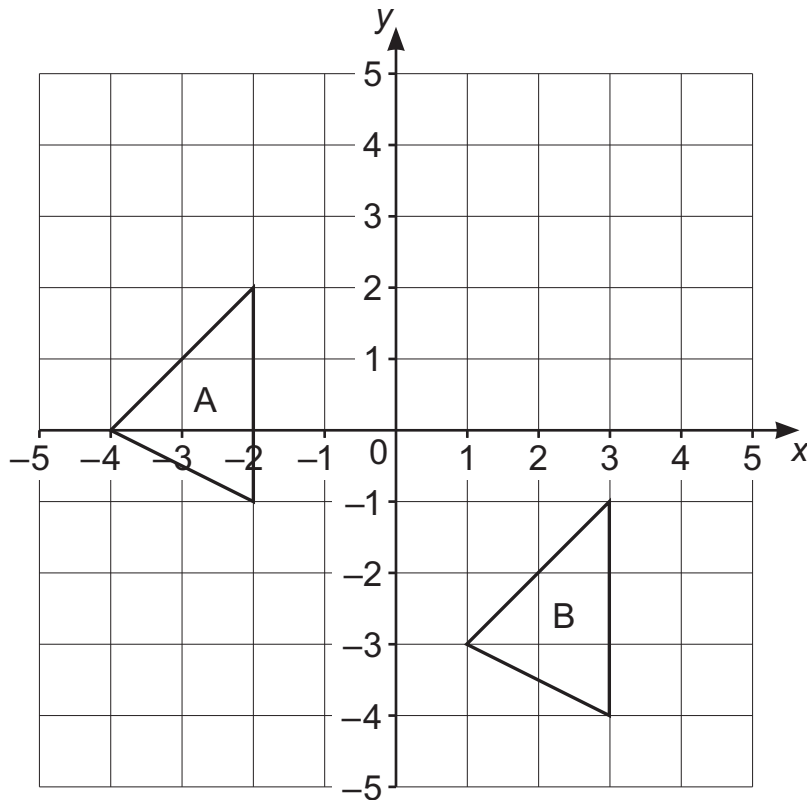
Not drawn to scale

The side of the pattern is 15 cm.

Calculate the diameter of each circle.

..... cm [1]

- 33 Pierre draws triangle A on a coordinate grid. He translates triangle A to triangle B.

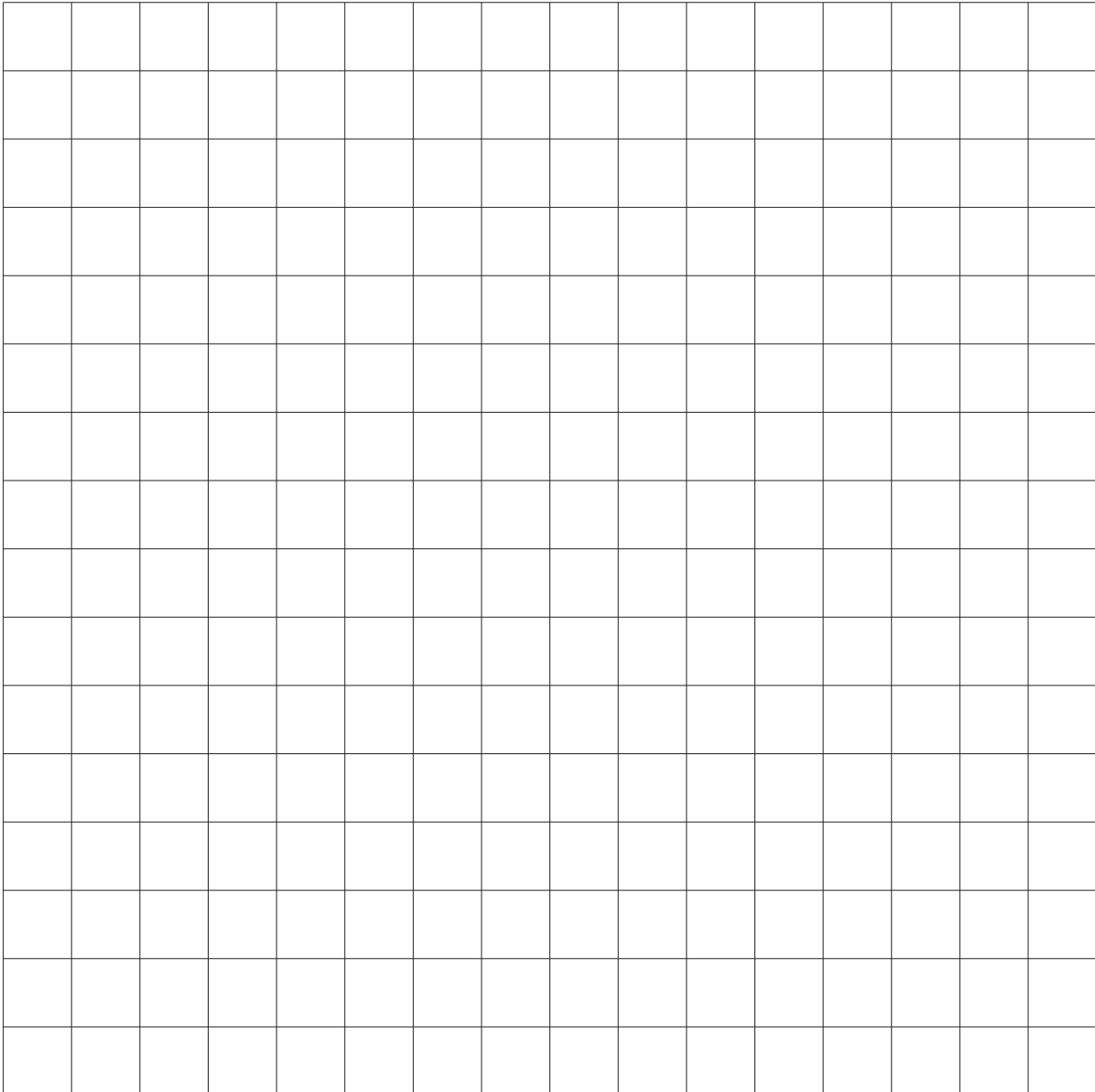


Write numbers to complete the sentence.

Pierre translates triangle A squares right
and squares down.

[1]

34 Here is a grid of 1 cm squares.



Draw on the grid a right-angled triangle that has an area of 8 cm^2 .

[1]

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MATHEMATICS

0096/01

Paper 1

October 2025

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 [].

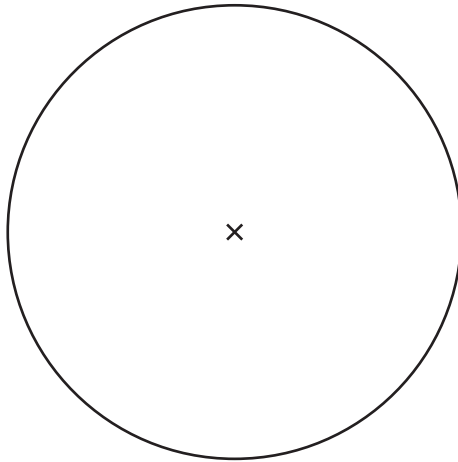
This document has **20** pages. Any blank pages are indicated.

1 Calculate.

$$847 \div 7$$

..... [1]

2 Here is a circle with a cross at its centre.



Measure the radius of the circle.
Give your answer in centimetres.

..... cm [1]

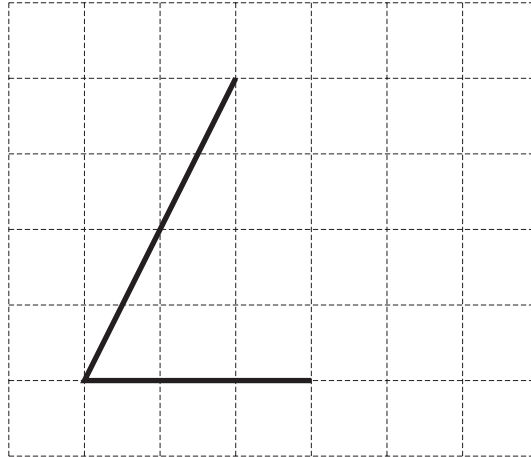
3 Calculate.

$$7.3 + 6.28$$

..... [1]

- 4 Here are two lines drawn on a grid of squares.

The lines are two sides of a parallelogram.



Draw **two** more lines to complete the parallelogram.
Use a ruler.

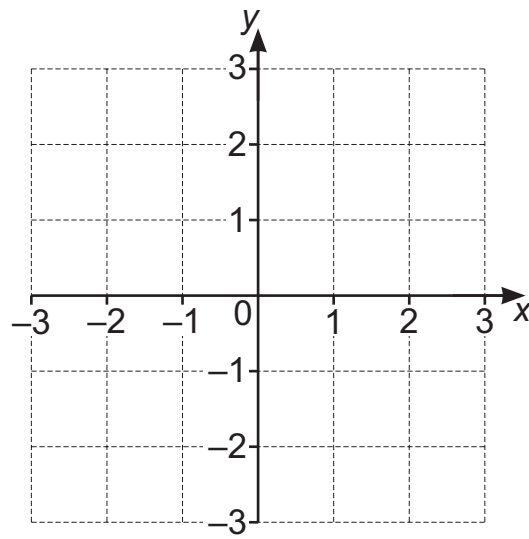
[1]

- 5 Calculate.

$$\frac{6}{7} \div 2$$

..... [1]

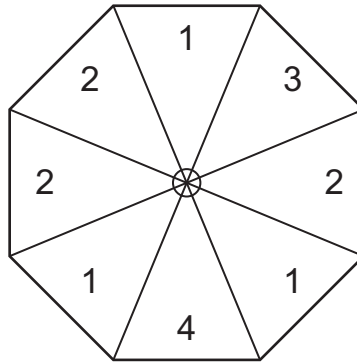
6 Here is a coordinate grid.



Plot the point with coordinates $(-1, 2)$.

[1]

7 Here is a spinner with 8 equal sections.



The spinner is spun once.

Tick (✓) to show if each statement is true or false.

There is a 2 out of 8 chance of spinning a 2

There is an even chance of spinning an odd number.

Spinning a 2 is more likely than spinning a 1

Spinning a 5 is impossible.

True

False

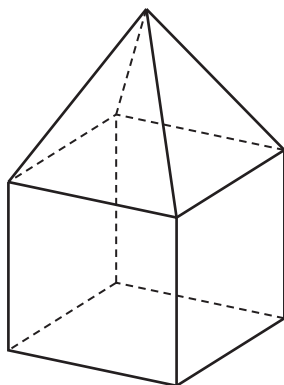
☐
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☐
☐
☐
☐
☐

[2]

8 Write 4.5 minutes in seconds.

..... seconds [1]

- 9 Here is a picture of a solid wooden object.



The object is made from a cube joined to another 3D shape.

- (a) Write the name of the other 3D shape.

..... [1]

- (b) Write the number of faces the solid wooden object has.

..... faces [1]

- 10 Calculate.

$$5 + 5 \times 26 \times 2$$

..... [1]

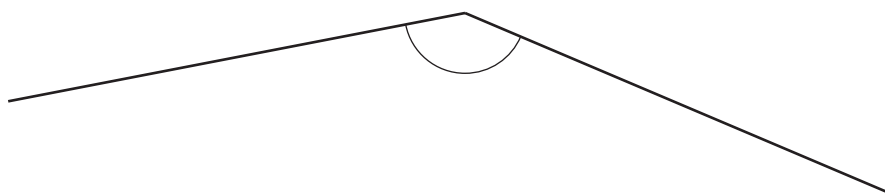
11 (a) Write 17% as a fraction.

..... [1]

(b) Write $2\frac{3}{10}$ as a decimal.

..... [1]

12 Measure the size of the marked angle.



..... ° [1]

13 Write a number in each box to complete these calculations.

$$4560 \div 100 = \boxed{}$$

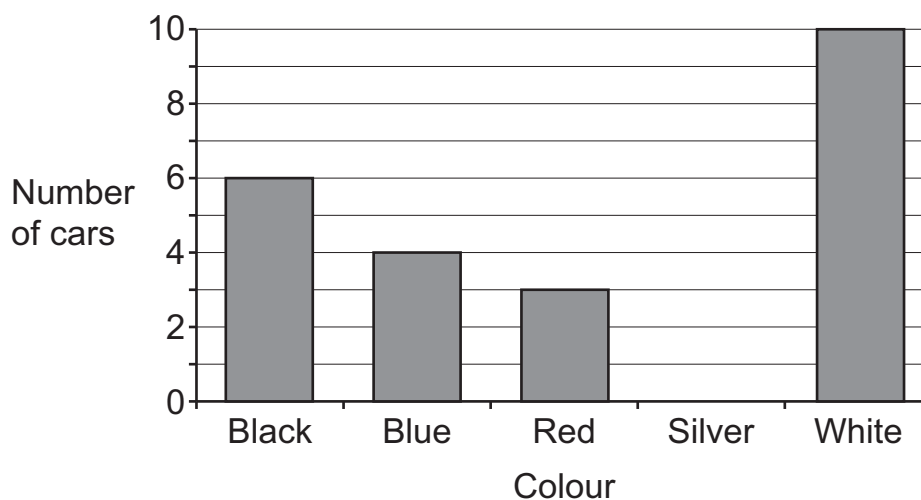
$$6.51 \times 1000 = \boxed{}$$

[2]

14 Naomi makes a tally chart to show the colours of cars parked on a street.

Colour	Tally
Black	|||| |
Blue	||||
Red	|||
Silver	|||| ||
White	|||| |||

Naomi makes this bar chart to show the data.



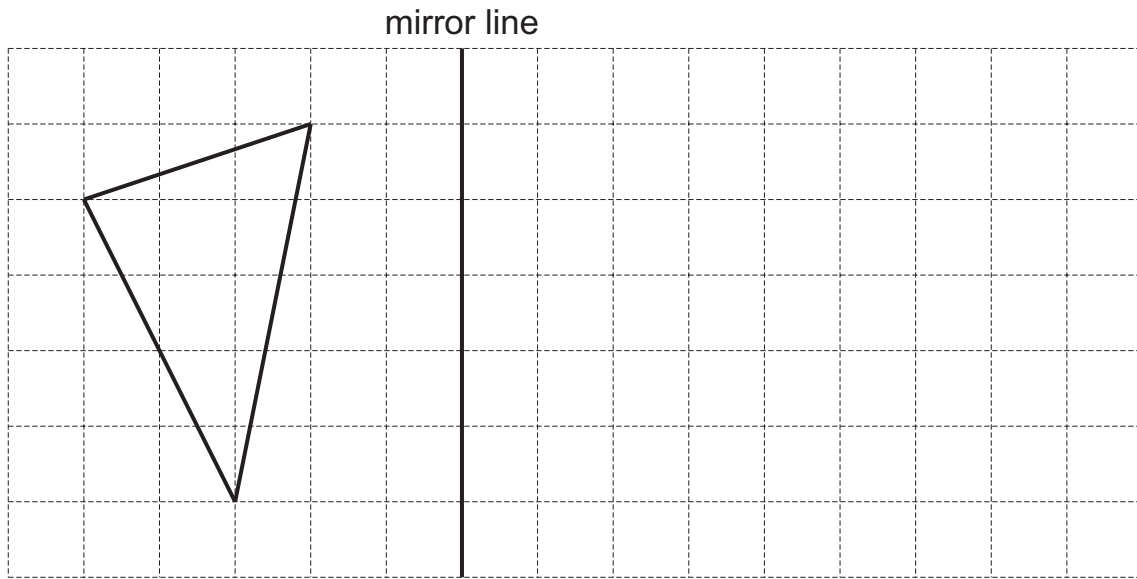
- (a)** Draw the missing bar.
Use a ruler.

[1]

- (b)** Write how many more black cars than red cars are parked on the street.

..... [1]

15 Here is a triangle drawn on a grid of squares.



Draw the reflection of the triangle in the mirror line.
Use a ruler.

[1]

16 Write $<$, $=$ or $>$ in each box to make correct statements.

$$\frac{3}{7} \quad \square \quad \frac{2}{7}$$

$$0.3 \quad \square \quad 3\%$$

$$40\% \quad \square \quad \frac{2}{5}$$

[2]

17 Here are three digits of a 4-digit number.

4		3	9
---	--	---	---

The number is divisible by 9.

Write a digit in the box to complete the number.

[1]

18 Convert this fraction to a mixed number.
Write your answer in its simplest form.

$$\frac{33}{12} = \boxed{} \frac{\boxed{}}{\boxed{}}$$

[1]

19 Calculate.

$$0.84 \div 6$$

[1]

20 Eva calculates 6.14×23

Tick (✓) the answer with the decimal point in the correct place.

☐

14.122

☐

141.22

☐

1412.2

☐

14122.00

[1]

21 Calculate 35% of 300

..... [1]

22 Ahmed has 600 ml of water in a jug.



He pours 250 ml of water out of the jug.

Then he adds 450 ml more water into the jug.

The jug is now full.

Write the capacity of the jug.

..... ml [1]

23 Here are the first five terms in a sequence.

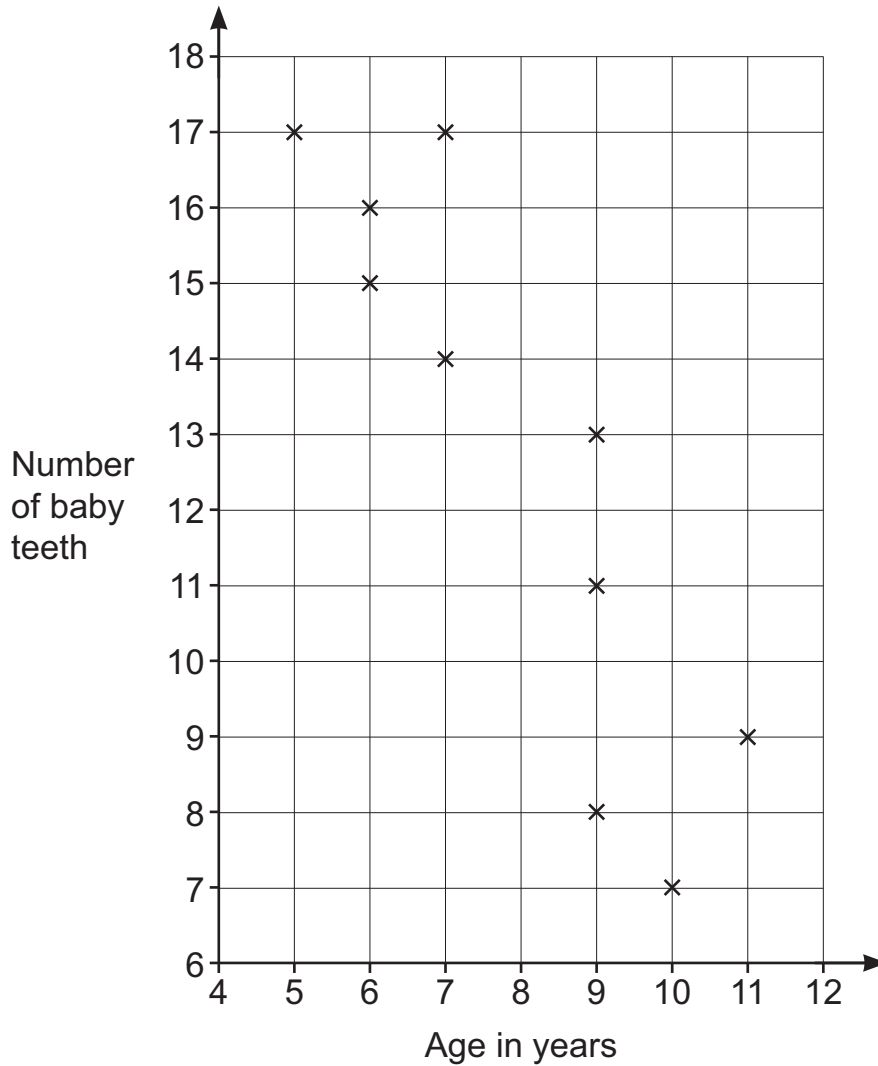
2 4 6 8 10

The sequence continues in the same way.

Work out the 302nd term in the sequence.

..... [1]

- 24 Here is a scatter graph showing the number of baby teeth and ages of some children.



Write a number in each box to make the statements correct.

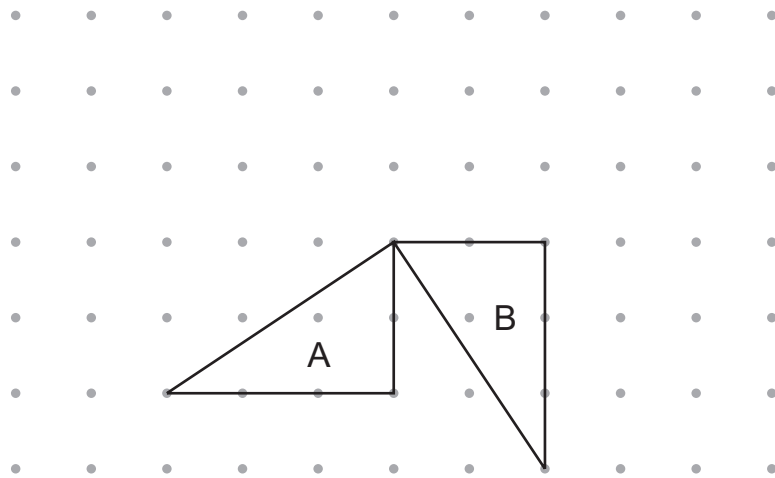
The age of the youngest child is years old.

The number of children with more than 10 baby teeth is

[2]

25 Rajiv draws triangle A on a dotted square grid.

He rotates triangle A around a vertex.
He labels the rotated triangle B.



(a) Draw a cross (x) on the diagram to show the vertex Rajiv uses for the rotation.

[1]

(b) Write the angle of the rotation.

..... ° [1]

26 (a) Safia thinks of a prime number.

Write the number of factors of Safia's number.

..... [1]

(b) Carlos thinks of two different prime numbers.

He multiplies them together to get a new number.

Write the number of factors of the new number.

..... [1]

27 Tick (✓) to show if each statement is true or false.

	True	False
All numbers that are divisible by 8 are even.	☐	☐
All numbers that are divisible by 8 are divisible by 1	☐	☐
All numbers that are divisible by 8 are factors of 16	☐	☐
All numbers that are divisible by 8 are divisible by 4	☐	☐

[2]

28 Find five whole numbers **greater than 0** that have

- median 6
- mode 8
- sum 27

Write the numbers in the boxes in order from smallest to largest.

smallest				largest

[2]

29 City A, City B and City C are in different time zones.

The time in City B is always 3 hours **behind** the time in City A.

The time in City C is always 7 hours **ahead** of the time in City B.

Anastasia says,



Explain why Anastasia is wrong.

.....

.....

..... [1]

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MATHEMATICS

0096/02

Paper 2

October 2025

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 may 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. Any blank pages are indicated.

- 1 Draw a ring around what the 2 represents in the number 5.204

2 hundredths

2 tens

2 tenths

2 thousandths

2 ones

[1]

- 2 8 people share 3 identical pizzas equally.

Write the fraction of a pizza that each person gets.

	of a pizza
---	------------

[1]

- 3 Here are the first four shapes in a sequence.

Each shape is made of dots.



The sequence continues in the same way.

Write the number of dots in the 7th shape in the sequence.

..... dots [1]

4 (a) Write a common multiple of 6 and 15

..... [1]

(b) Write a common factor of 8 and 12

..... [1]

5 Calculate $\frac{2}{5}$ of 40

..... [1]

- 6 When a drawing pin is dropped there are two different ways it can land.



Point up



Point down

Five students each do an experiment to investigate the probability that the pin lands point up.

The table shows the number of times each student drops the pin.

Name	Number of pin drops
Hassan	5
Mike	2
Oliver	45
Pierre	1
Youssef	10

Write the name of the student who is most likely to get a reliable estimate of the probability.

..... [1]

- 7 Complete the statement by writing a number.

$$0.051 = \boxed{} \text{ thousandths}$$

[1]

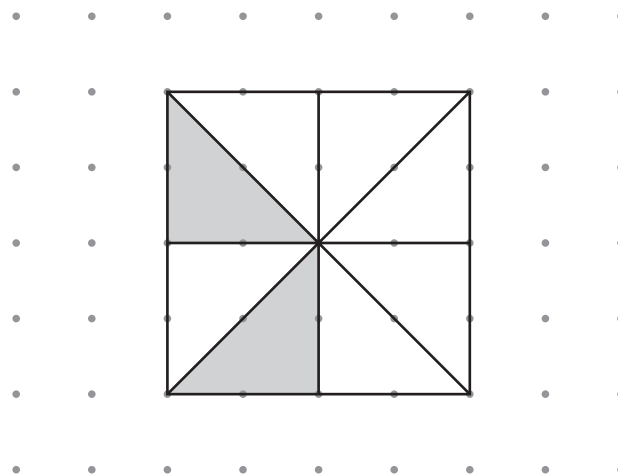
- 8 Angelique writes down the ages of people in her family.

12 46 12 15 10 43

Calculate the mean age.

..... [1]

- 9 Here is a shape drawn on a dotted grid of squares.



Write the percentage of the shape that is shaded.

..... % [1]

10 Here is a part of a sequence.

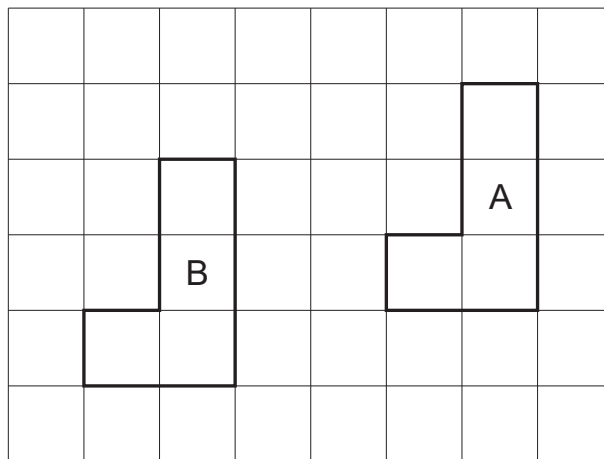
-25 -19 -13 -7

The sequence continues in the same way.

Write the next **two** numbers in the sequence.

[1]

11 Here are two shapes on a grid of squares.



Gabriella says, 'If you translate shape A left 2 squares and down 1 square, you get shape B'.

Tick (✓) to show if Gabriella is correct.

Yes ☐ No ☐

Explain how you know.

.....

 [1]

12 Samira wants to know if there is a connection between arm length and leg length.

She records the arm length and leg length of each student in her class.

Draw a ring around the most suitable way to show her data.

line graph

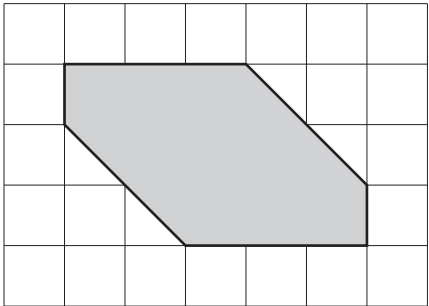
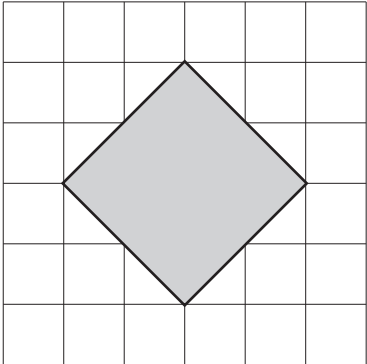
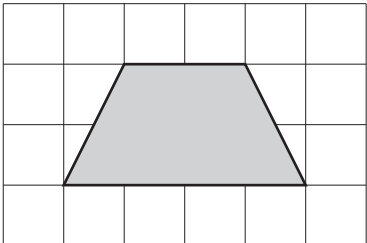
scatter graph

frequency diagram

dot plot

[1]

13 Here are three shapes drawn on grids of squares.

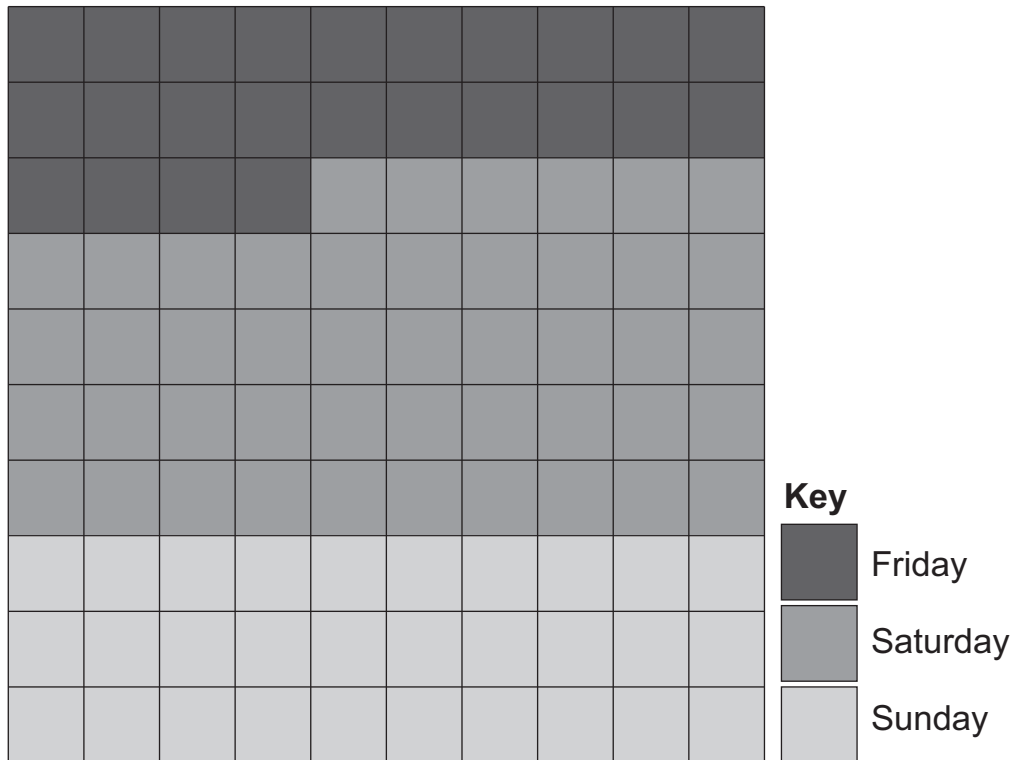
Shape	Order of rotational symmetry
	
	
	

Complete the table to show the order of rotational symmetry for each shape.

[2]

14 1000 people choose their favourite day of the week.

The waffle diagram shows the results.



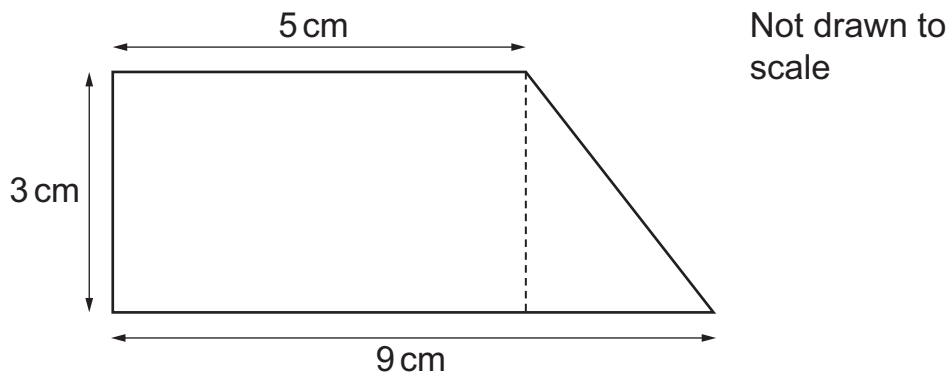
(a) Write the number of people represented by each small square.

..... people [1]

(b) Write the fraction of people whose favourite day is Saturday.

..... [1]

15 Here is a shape made by joining a rectangle to a right-angled triangle.



Calculate the area of the shape.

..... cm^2 [2]

16 A and B are whole numbers greater than zero.

$$A + A + B = 11$$

Write a possible pair of values for A and B.

$$A = \boxed{}$$

$$B = \boxed{}$$

[1]

17 Draw a ring around the number that is **both** a square number and a cube number.

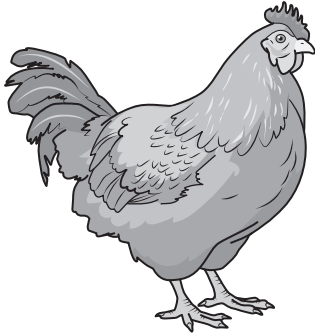
1 8 16 27 36

[1]

18 There are 123 chickens on a farm.

Each chicken has 2 feet.

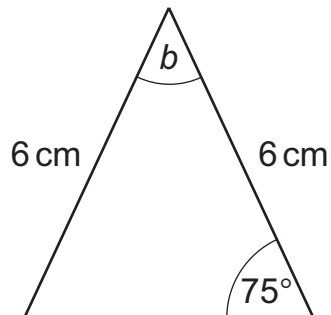
Each foot has 4 toes.



Write the total number of toes of **all** the chickens on the farm.

..... [1]

19 Here is an isosceles triangle.



Not drawn to
scale

Calculate angle b .

.....[°] [1]

- 20** Mia has a fair 6-sided dice.
It has the numbers 1 to 6 on it.

Mia does a probability experiment.

She rolls the dice 30 times.

Tick (✓) to show if each statement is true or false.

It is certain that she rolls a 5 the same number of times as a 6

True

☐

False

☐

It is possible that she does not roll a 1

☐
☐

[1]

- 21** Jamila adds two fractions.

Here is the first line of her working.
It is correct.

$$\frac{4}{9} + \frac{5}{18} = \frac{72}{162} + \frac{45}{162}$$

- (a)** Explain why both $\frac{4}{9}$ and $\frac{5}{18}$ can be rewritten as fractions with denominator 162

.....
..... [1]

- (b)** Show a different way to calculate $\frac{4}{9} + \frac{5}{18}$ using a **smaller** denominator than 162

.....
..... [1]

22 Write these numbers in order of size, starting with the smallest.

0.78 0.8 1.8 0.87 0.08

..... smallest largest

[1]

23 Yuri follows instructions to make a fruit drink.

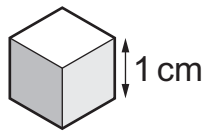
The instructions say, 'Use 4 mangos for every 12 oranges.'

Yuri uses 5 mangos.

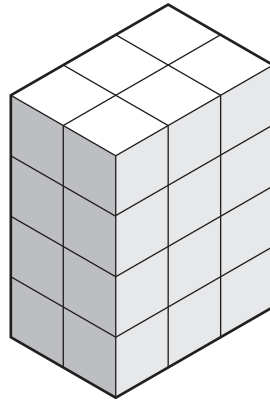
Write the number of oranges he uses.

..... oranges [1]

24 Here is a picture of a 1 centimetre cube.



Here is a picture of a cuboid made from identical 1 cm cubes.

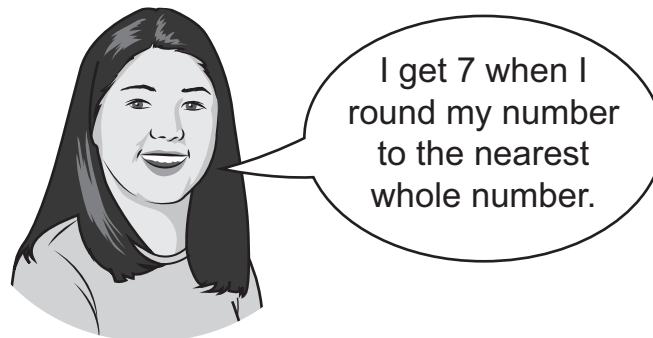


Calculate the total surface area of the cuboid.

..... cm^2 [1]

- 25** Lily thinks of a number.
It has one decimal place.

Lily says,

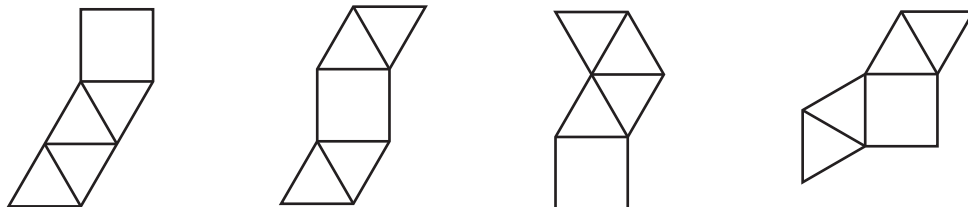


Write a digit in each box to show the largest possible value of Lily's number.

	.	
--	---	--

[1]

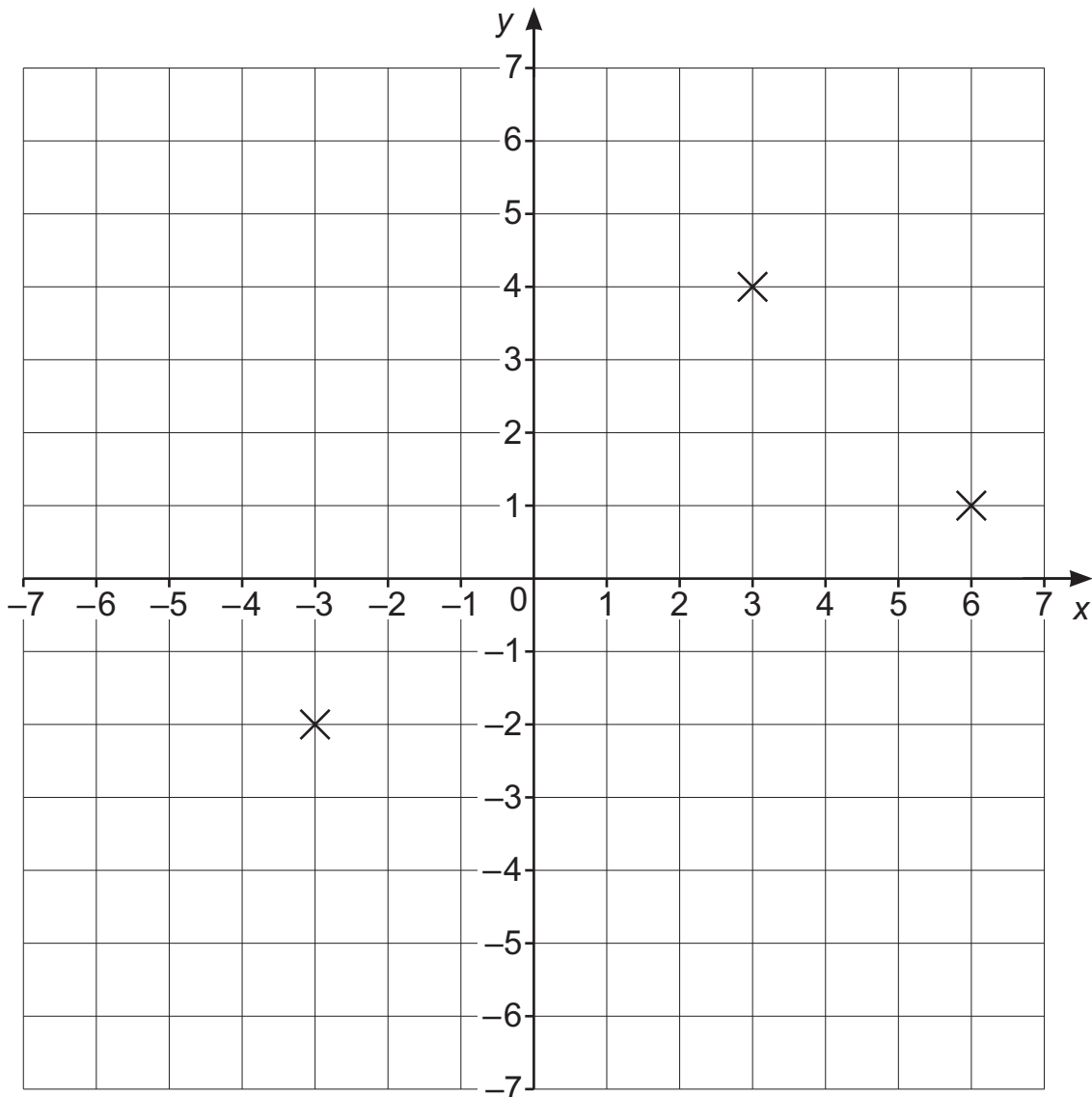
- 26** Three of these shapes are nets of a square-based pyramid.



Draw a ring around the shape that is **not** the net of a square-based pyramid.

[1]

27 Three vertices of a rectangle are drawn on a coordinate grid.



Write the coordinates of the fourth vertex.

(..... ,) [1]

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

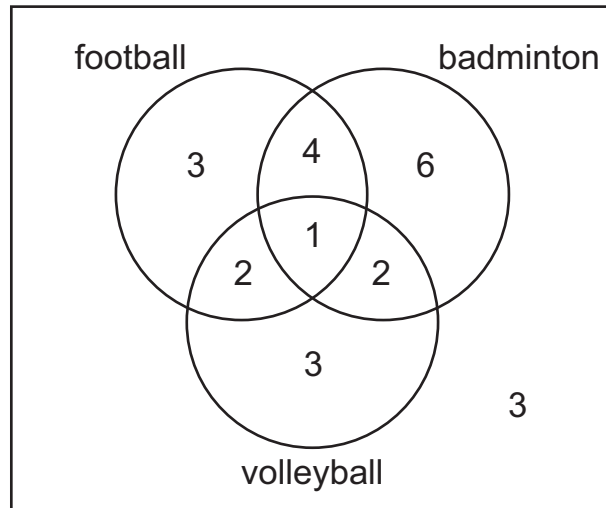
$$6 \times (\square - 7) = 30$$

[1]

29 A teacher asks all of the 24 students in his class three questions:

- Do you play football?
- Do you play volleyball?
- Do you play badminton?

The Venn diagram shows the numbers of students who play each sport.



(a) Write the number of students who do **not** play football.

..... [1]

(b) Write the number of students who play badminton but **not** volleyball.

..... [1]

30 Here is a calculation.

$$14 - \square$$

Write a number in the box to make the answer to the calculation **greater than** 14

[1]

31 A bakery makes loaves and bread rolls each day.

The number of loaves and the number of bread rolls are always in direct proportion.

Here is a table of the numbers of loaves and bread rolls the bakery makes on different days.

Day	Number of loaves	Number of bread rolls
Monday	20	50
Tuesday	30	75
Wednesday	70	.....
Thursday	.....	150

Write the missing values in the table.

[2]

32 Tick (✓) to show if each type of triangle can have a right angle.

One has been done for you.

Type of triangle	Always	Sometimes	Never
Right-angled	✓		
Equilateral			
Isosceles			
Scalene			

[2]

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Page 225

- 1 Mia counts on in steps of 1
She starts at 0.5

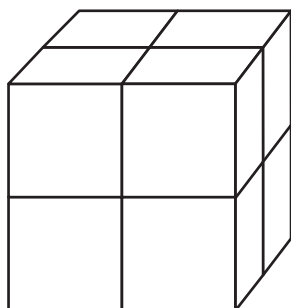
0.5

.....	
-------	-------

Complete the boxes to show the next **two** numbers Mia says.

[1]

- 2 Hassan uses some 1 centimetre cubes to make a larger cube.
Here is a drawing of Hassan's cube.



not to scale

Write the number of 1 centimetre cubes that Hassan uses.

..... [1]

- 3 A chef needs 400 grams of rice for 8 people.

Calculate the mass of rice the chef needs for 16 people.

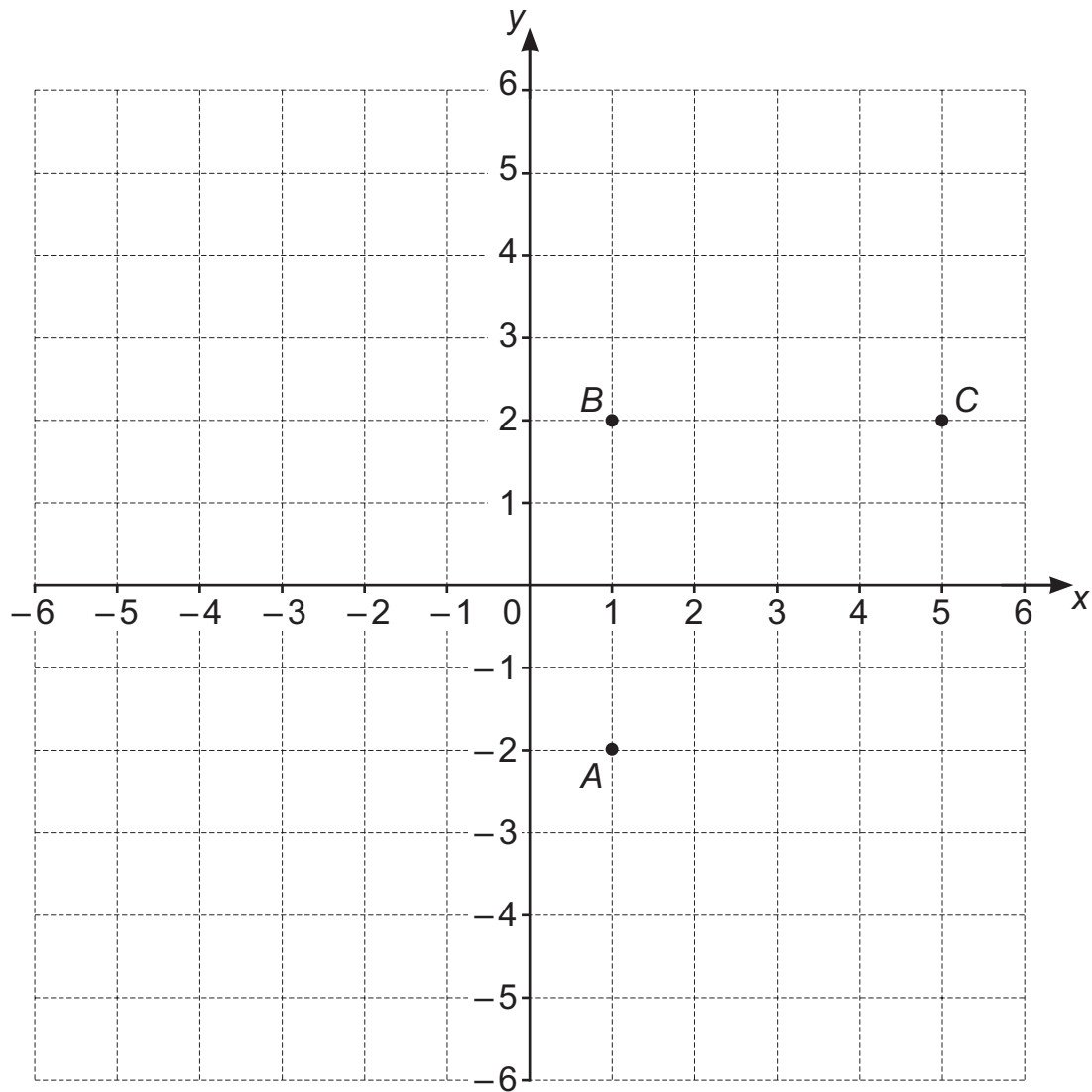
..... grams [1]

4 Calculate.

$$-7 - 4$$

..... [1]

5 Here are points A , B and C plotted on a coordinate grid.



(a) Write the coordinates of point A .

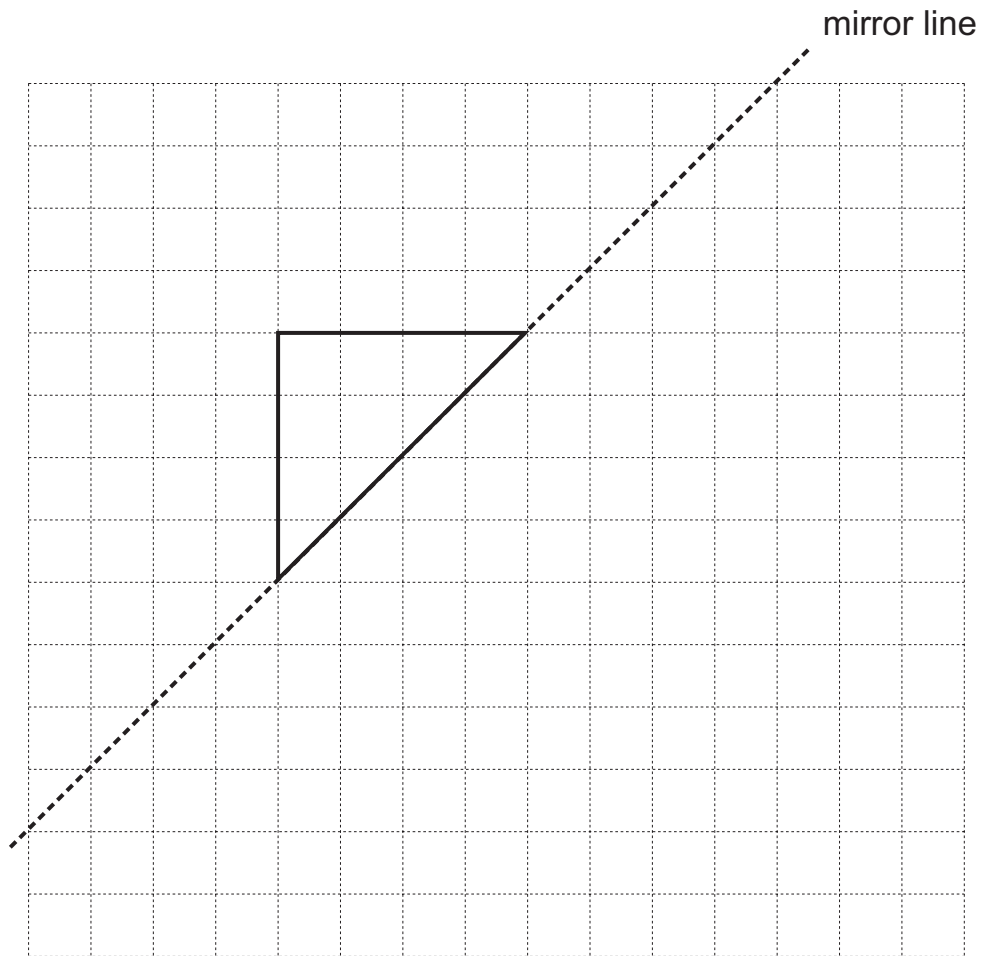
(..... ,) [1]

(b) $ABCD$ is a square.

Plot point D on the grid.

[1]

6 Here is a triangle drawn on a grid of squares.



Draw the reflection of the triangle in the mirror line.

[1]

7 Write numbers in the boxes to complete the calculations.

$$\frac{2}{5} \times 2 = \frac{\boxed{}}{\boxed{}}$$

$$\frac{6}{10} \div 2 = \frac{\boxed{}}{\boxed{}}$$

[2]

- 8 A postman delivers 2250 letters each day for 3 days.

Calculate the **total** number of letters the postman delivers.

..... letters [1]

- 9 Tick (✓) **all** the number sentences that are equal to 62.122

$62 + 122$	
$62 + 0.122$	
$60 + 2 + 0.122$	
$62 + 0.12 + 2$	

[1]

- 10 Write $1\frac{75}{100}$ as a decimal.

..... [1]

11 Chen has four triangles.

Match the description of each triangle to the correct type of triangle.

description

it has no lines of symmetry

it has 1 line of symmetry

it has no equal angles

it has 2 equal angles

type

isosceles triangle

scalene triangle

[1]

12 Calculate.

$$165 \div 15$$

..... [1]

13 Here is a calculation.

$$15 + 5 \times 25 \times 2$$

Tick (✓) the calculation that gives the same answer.

$20 \times 25 \times 2$	
$15 + 10 \times 25$	
$10 + 15 \times 25$	
$15 + 2 \times 50$	

[1]

14 Here is a fraction.

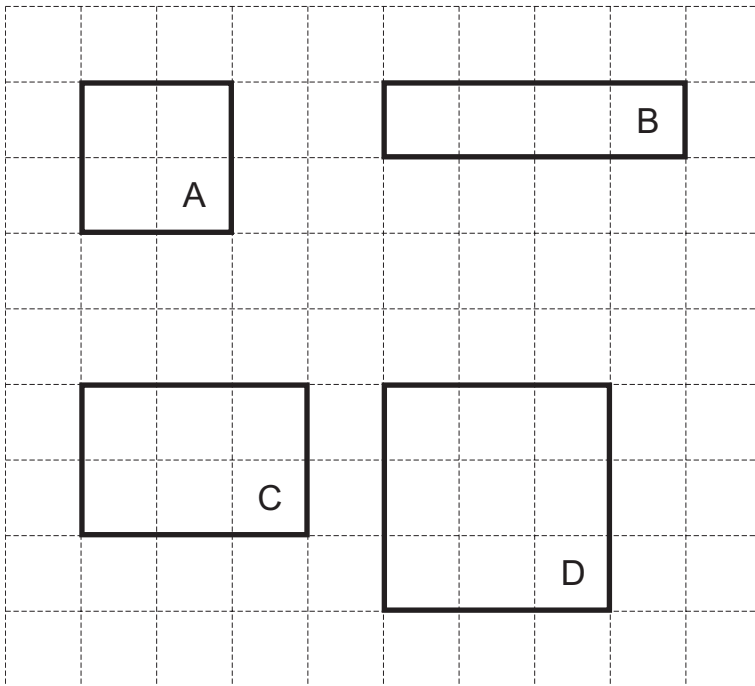
$$\frac{150}{250}$$

Write the fraction in its simplest form.

	/		

[1]

15 Here are some shapes drawn on a grid of squares.



Write letters in the gaps to complete the sentences.

Shape has the same **area** as shape

Shape has the same **perimeter** as shape

[2]

- 16** Oliver wants to investigate the difference between the **highest** temperature and the **lowest** temperature in his garden overnight.

He records the temperature at 8 o'clock in the evening and 8 o'clock the following morning.

State **one** way that Oliver could improve his experiment.

.....

.....

..... [1]

- 17** Naomi draws a circle.
The diameter of her circle is 16 cm.

Calculate the distance between the centre and the circumference of Naomi's circle.

..... cm [1]

- 18** Calculate.

$$\frac{6}{4} + \frac{7}{6}$$

Give your answer as a fraction.

			[1]

19 Calculate.

$$56 \div (12 - 8)$$

..... [1]

20 Draw a ring around **all** the numbers that are divisible by 6

327

408

572

1572

[1]

21 A tin contains 12.5 litres of paint.

Calculate the **total** volume of paint in 18 tins.

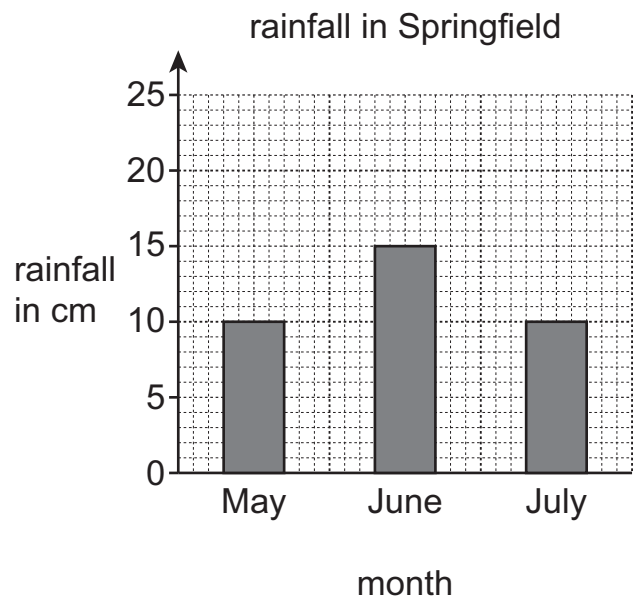
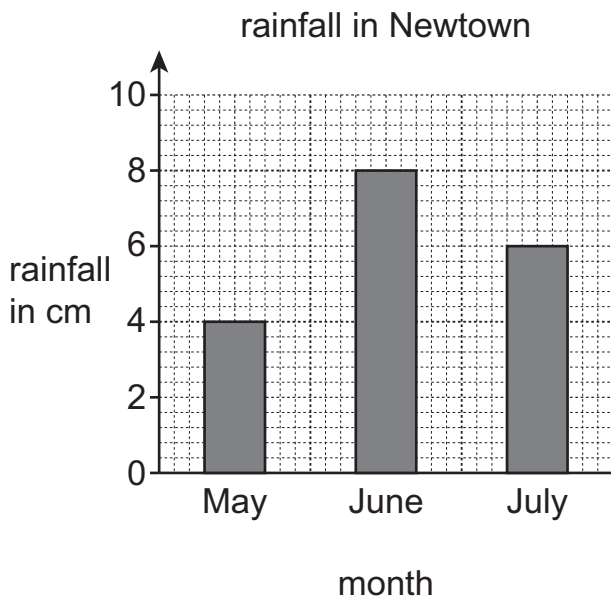
..... litres [1]

22 Calculate.

$$\frac{7}{6} \text{ of } 72$$

..... [1]

23 Here are two bar charts that show the **total** monthly rainfall in Newtown and Springfield.



Lily says,

‘The highest total monthly rainfall was recorded in Newtown in June.’

Lily is **not** correct.

Explain how you know.

.....

.....

..... [1]

- 24** Yuri records the numbers of each type of fruit sold in his shop in one week. Here is his data.

type of fruit	number sold
kiwi	2
banana	8
apple	6
orange	4

Here is a waffle diagram divided into 10 sections.

fruit sold

key

	type of fruit
K	kiwi
B	banana
A	apple
O	orange

Complete the waffle diagram to show Yuri's data.

[2]

- 25** A teacher wants to find out how much time children spend practising during the month before their music examination.

Tick (✓) the question that the teacher asks to collect the data that he needs.

question	
do you usually practise every week	
do you usually practise before school or after school	
how many minutes did you practise yesterday	
how many minutes do you usually practise every week	

[1]

- 26** Write a number in **each** box to complete the calculations.

$$16.4 \times 100 = \boxed{}$$

$$213 \div 1000 = \boxed{}$$

[2]

- 27** Calculate.

$$251.42 - 75.135$$

..... [1]

28 Draw an angle of 210°

Use a protractor and a ruler.
Label the angle.

[1]

29 A builder has 54.9 kilograms of sand.
He divides the sand into 18 equal piles.

Calculate the mass of each pile of sand.

..... kilograms [1]

30 Here are some numbers.

1.1 $\frac{1}{1}$ 1.02 $\frac{3}{4}$ $\frac{7}{10}$

Write the numbers in order of size, starting with the smallest.

..... smallest largest

[1]

31 Carlos has a bag of counters.
Each counter is red, orange or yellow.

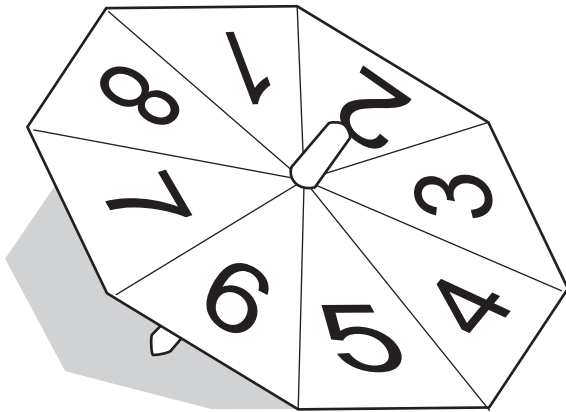
Carlos picks a counter at random.
He has a 1 out of 3 chance of picking a **red** counter.

Complete the table.

counter	number in the bag
red	4
orange	1
yellow	.....

[1]

32 Anastasia has a spinner.



Anastasia spins the spinner **once**.

Tick (✓) to show if each pair of events is mutually exclusive or not mutually exclusive.

pair of events	mutually exclusive	not mutually exclusive
she spins a 4 she spins a number greater than 5		
she spins a 4 she spins an even number		
she spins a 4 she spins a number smaller than 5		
she spins a 4 she spins a prime number		

[2]

33 Priya has some stamps.

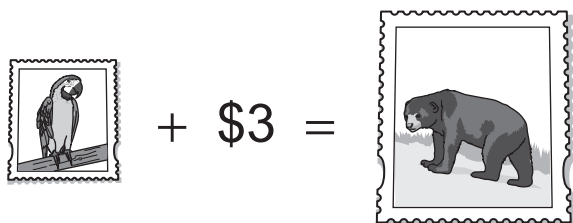


represents the cost of a small stamp in \$

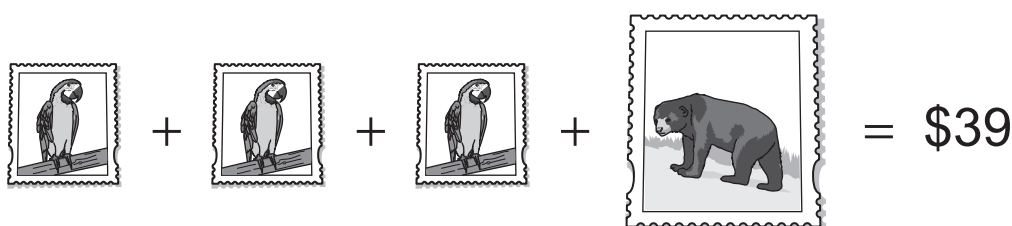


represents the cost of a large stamp in \$

Priya knows that



and



Calculate the cost of each stamp.

Write a number in each gap to complete the statements.



represents \$



represents \$

[2]

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Page 241

1 Complete the sentence.

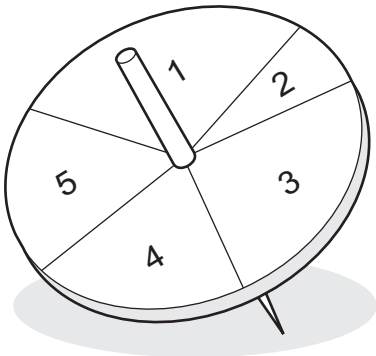
The ratio 2 : 20 is the same as the ratio 10 : [1]

2 Calculate.

$$3^3$$

..... [1]

3 Here is a spinner.



Tick (✓) the best method to find the probability of spinning a 5

spin the spinner 5 times and record the results	
spin the spinner 10 times and record the results	
spin the spinner 100 times and record the results	
spin the spinner 1000 times and record the results	

[1]

- 4 Eva does this calculation.

$$5 + 5 \times 4$$

She starts by adding 5 and 5
Then she multiplies the result by 4

Tick (✓) to show if Eva is correct.

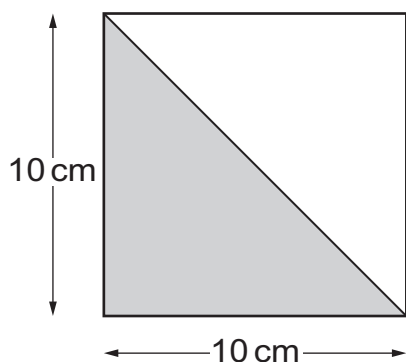
yes ☐

no ☐

Explain your answer.

.....
.....
..... [1]

- 5 Here is a drawing of a square.



not to scale

Calculate the area of the shaded triangle.

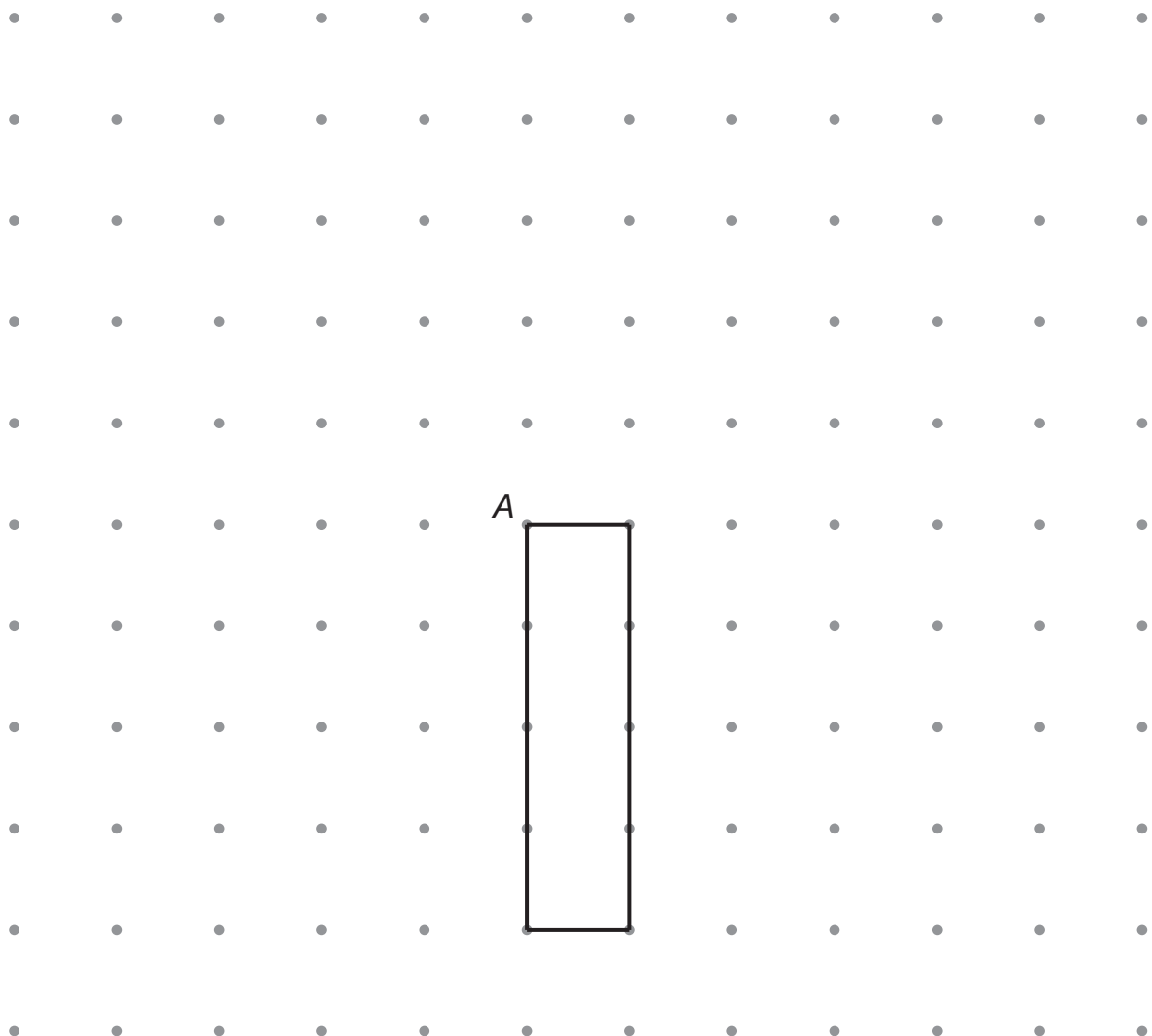
..... cm² [1]

- 6 Write a number in **each** box to complete the calculation.

$$\frac{11}{9} = \boxed{} \div \boxed{}$$

[1]

- 7 Here is a rectangle drawn on a dotted grid of squares.
Vertex *A* of the rectangle is shown.

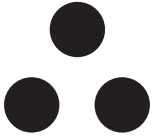


Rotate the rectangle 90° **clockwise** around the vertex *A*.

Draw the new position of the rectangle on the grid.

[1]

- 8 Here is the drawing of the spatial pattern of the 2nd triangular number.



Draw a ring around the expression that gives the number of dots in the spatial pattern of the 4th triangular number.

$3 + 3 + 3$

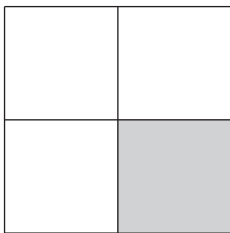
$1 + 2 + 3 + 4$

$1 + 2 + 4 + 8$

$4 + 4 + 4 + 4$

[1]

- 9 (a) Here is a shape divided into four equal squares.



Write the percentage of the shape that is shaded.

.....% [1]

- (b) Here is a rectangle divided into ten equal squares.



Shade 20% of the rectangle.

[1]

10 Here are the terms in the first three positions of a sequence.

The sequence continues in the same way.

position	term
1	6
2	12
3	18

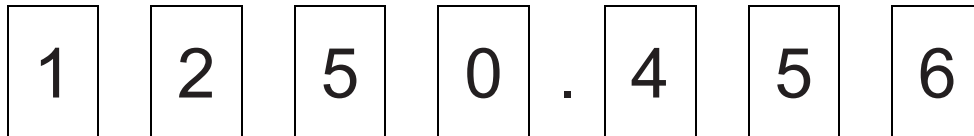
Write a number in each space to complete the sentences.

The term in position 10 is

The term in position is 42

[2]

11 Ahmed chooses a number made from digit cards.



Draw a ring around the card that represents the **thousandths** digit.

[1]

12 Write 1.5 hours in minutes.

..... minutes [1]

13 Jamila has a six-sided dice numbered from 1 to 6



She rolls the dice once.

Tick (✓) **all** the events that are **unlikely**.

event	the event is unlikely
Jamila rolls a 2	
Jamila rolls an odd number	
Jamila rolls an even number	
Jamila rolls a two-digit number	
Jamila rolls a number greater than 5	
Jamila rolls a one-digit number	

[1]

14 A shopkeeper measures the masses of seven pumpkins.

Here are the masses, in kilograms.

2

4

4

5

9

9

9

(a) Calculate the median mass of the pumpkins.

..... kilograms [1]

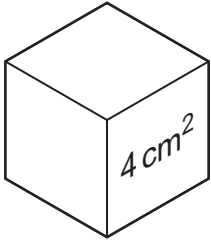
(b) Calculate the mean mass of the pumpkins.

..... kilograms [1]

15 Here is a drawing of a cube.

Each face has an area of 4 cm^2 .

not to scale



Write the **total** surface area of the cube.

..... cm^2 [1]

16 Gabriella makes a pattern from 4 identical squares.

The length of the side of each square is 3 cm.

Here is a drawing of her pattern.



not to scale

Gabriella uses a ruler to measure the perimeter of the pattern.

Suggest a way to find the perimeter **without** measuring.

.....

 [1]

17 Here is a sequence of numbers.

4 8 12 ...

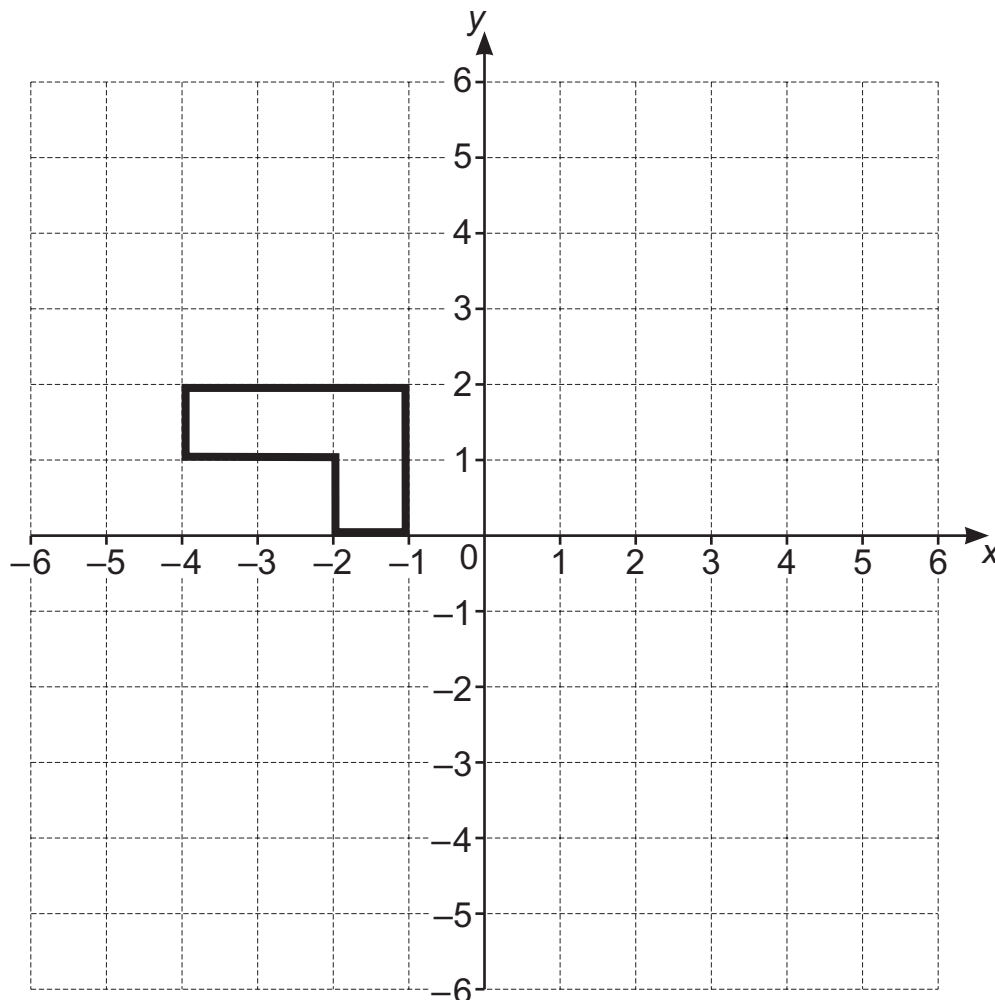
The sequence continues in the same way.

Draw a ring around **all** the numbers that are part of the sequence.

15 32 42 126 804

[1]

18 Here is a 2D shape drawn on a coordinate grid.



Translate the shape 3 squares down and 5 squares to the right.

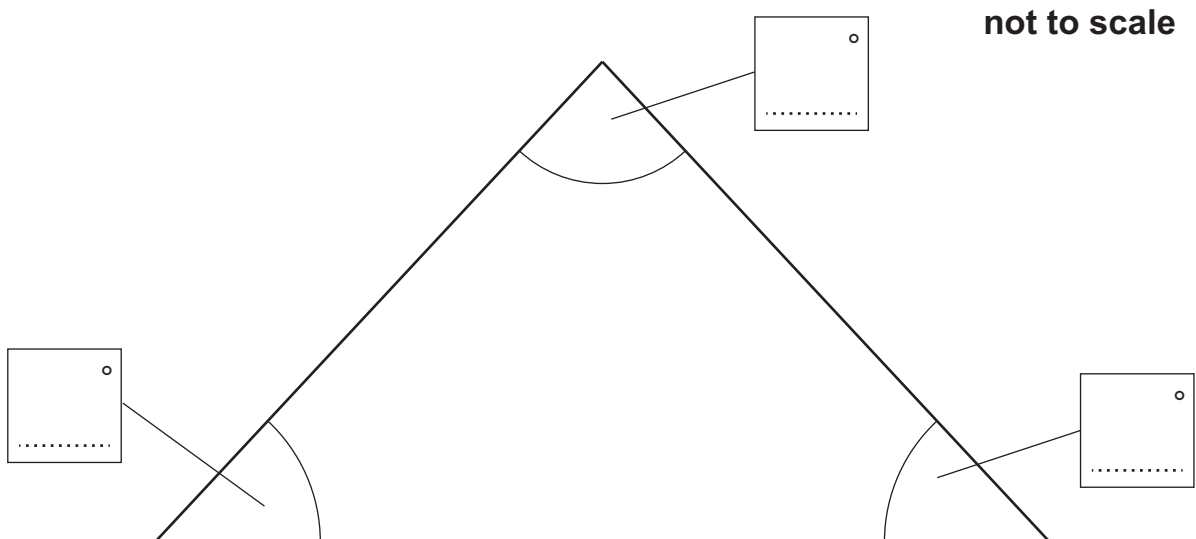
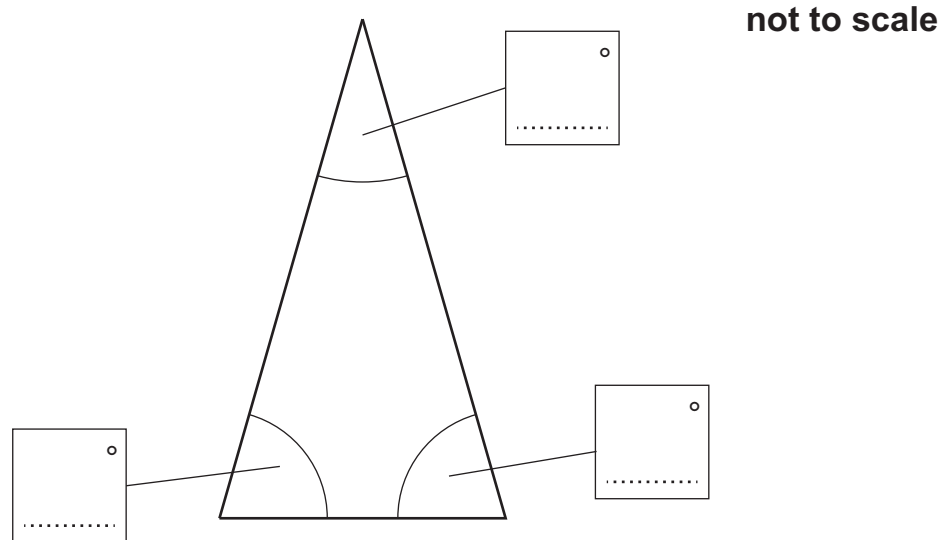
Draw the shape in its new position on the grid.

[1]

19 Rajiv draws isosceles triangles.

He knows that he can draw two **different** isosceles triangles with an angle of 80°

Here are the drawings of his two isosceles triangles.

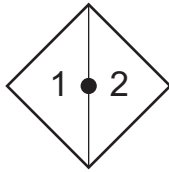


Write numbers in the boxes to show all the angles in the two different isosceles triangles.

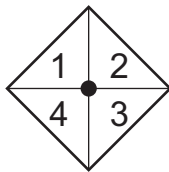
[2]

20 Oliver has four fair spinners.

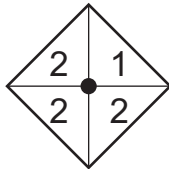
Draw a line to match each spinner with the probability that the spinner lands on 2



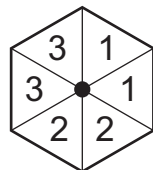
1 out of 3 chances



even chance



25% chance



75% chance

[2]

21 Here are the first three terms from the sequence of square numbers.

1

4

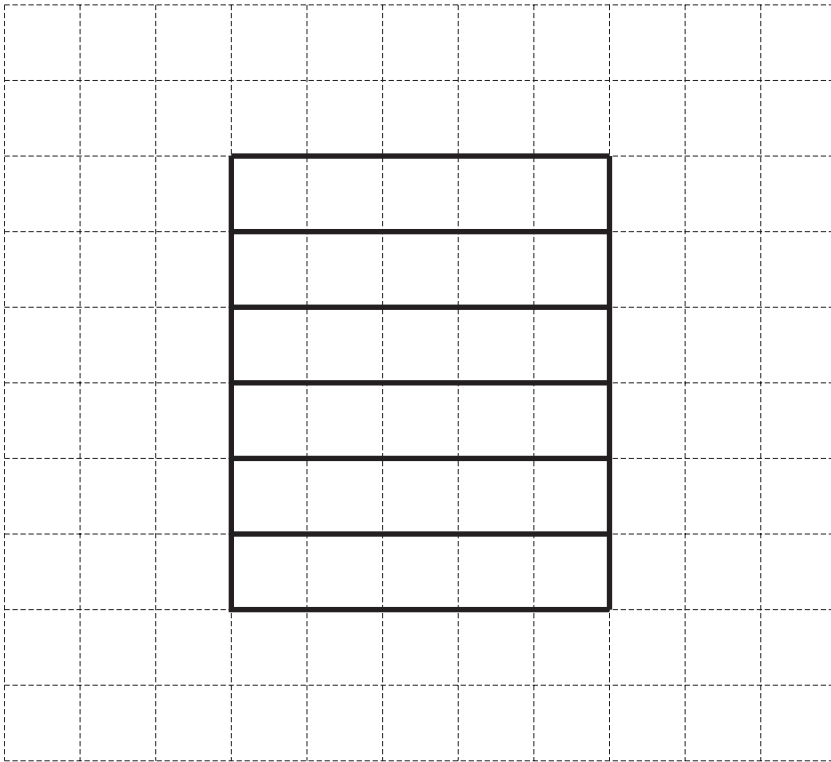
9

Write the 8th term in the sequence.

..... [1]

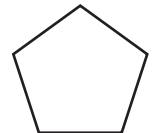
22 Carlos starts to draw the net of a prism.

He draws six shapes.



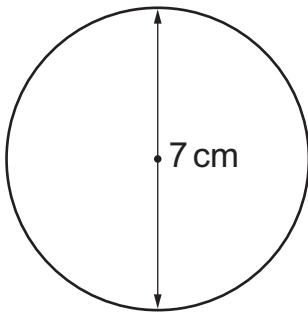
Carlos adds two more shapes to complete his net.

Draw a ring around the **two** shapes that Carlos uses to complete his net.



[1]

23 Here is a drawing of a circle.



not to scale

Draw this circle accurately.
Use a ruler and compasses.

[1]

- 24** Draw a ring around **all** the numbers that round to 100.0 when rounded to the nearest tenth.

95.21

99.59

99.95

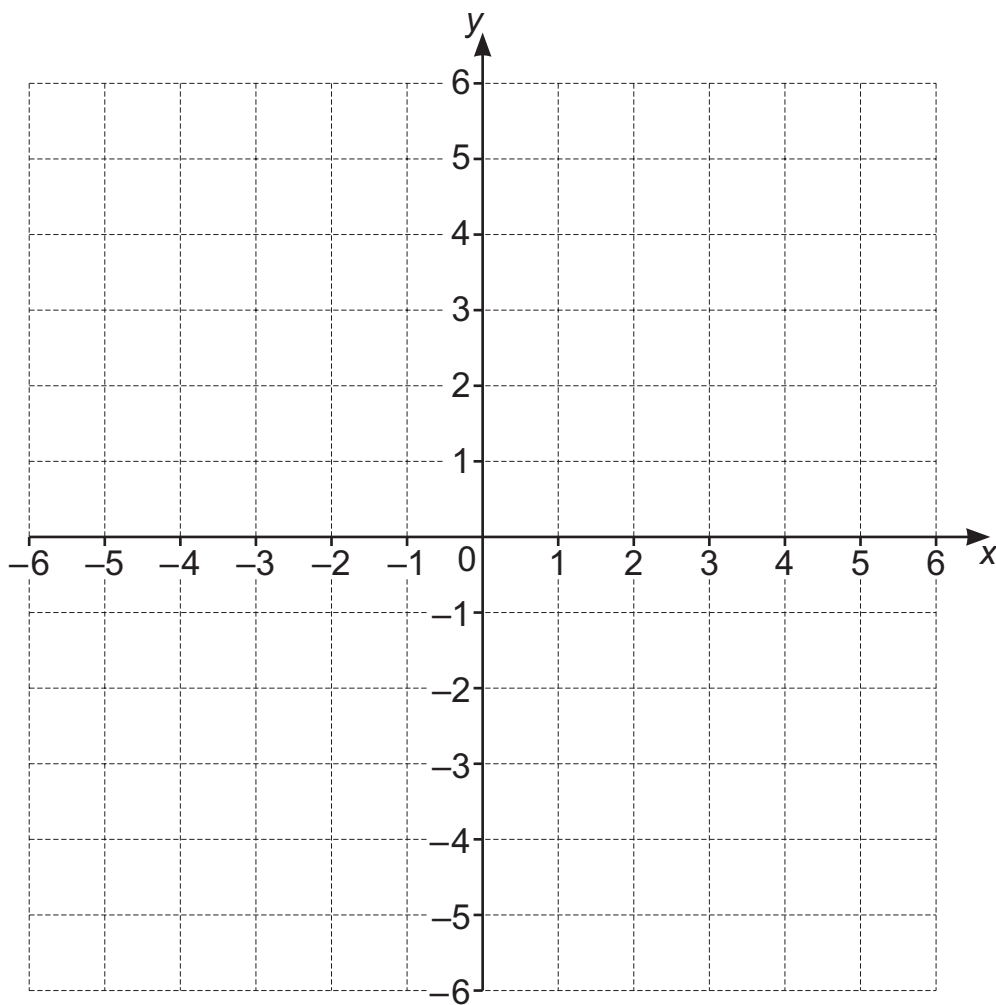
100.02

100.20

102.22

[2]

- 25** Plot point $\left(-\frac{1}{2}, -\frac{5}{2}\right)$ on the coordinate grid.



[1]

- 26** Pierre counts back from 544 in steps of 5
Here are the first five numbers Pierre says.

544

539

534

529

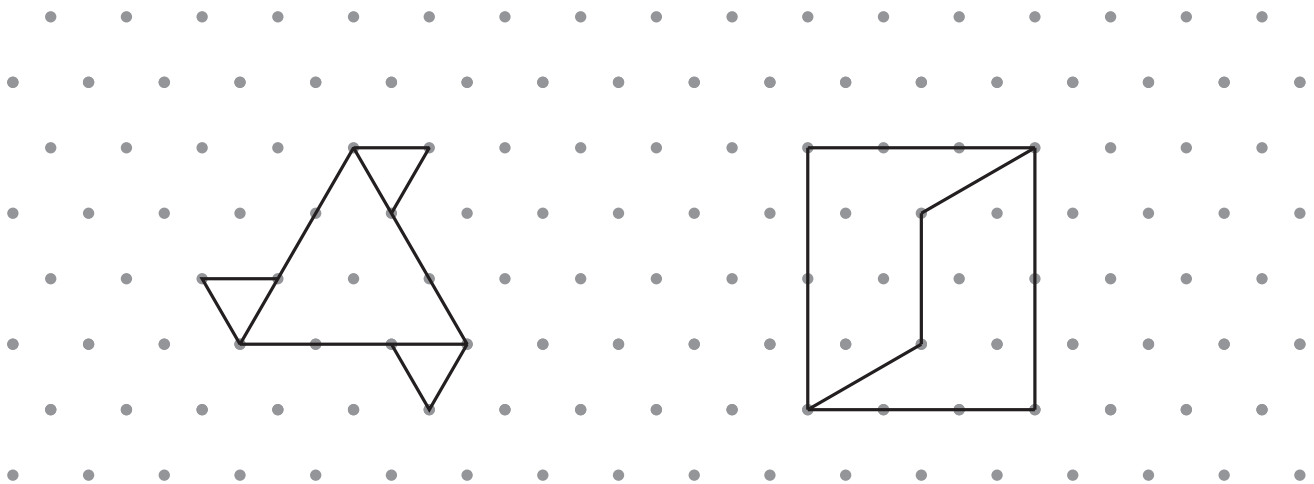
524

Write the first **two** negative numbers Pierre says.

..... and [1]

- 27** Here are two patterns drawn on a dotted grid of equilateral triangles.

Write the order of rotational symmetry for each pattern.



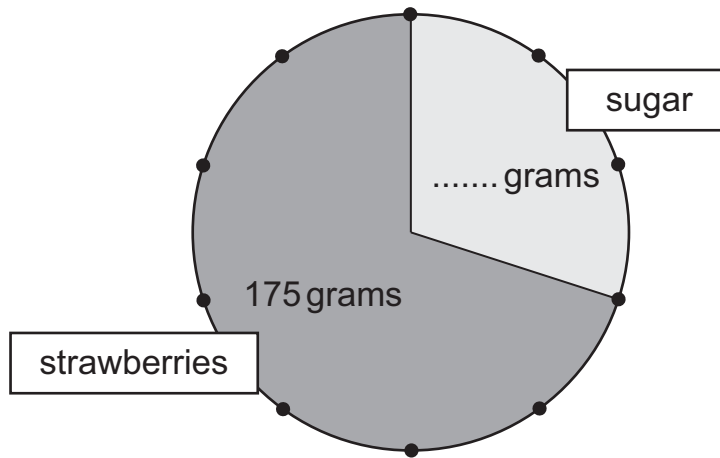
order

order

[2]

28 The pie chart shows the ingredients of strawberry jam.

strawberry jam ingredients in grams



Calculate the mass of sugar in the jam.

Show your working.

..... grams [2]

29 Here are some angles.

50°

50°

55°

60°

60°

65°

70°

70°

75°

75°

Mike joins **three** of these angles to make a straight line.

Draw a ring around **three** angles that Mike could use.

[1]

30 Safia adds two **prime** numbers.
Both her prime numbers have two digits.

7		+	4		=	1	2	0
---	--	---	---	--	---	---	---	---

Write a digit in each box to complete the calculation.

[1]

31 Write the largest number that is a common factor of 80 and 96

..... [1]

32 Samira chooses a quadrilateral.

Samira's quadrilateral has

- exactly one pair of parallel sides
- exactly two right angles.

Draw a quadrilateral that Samira could choose.

[1]

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