Cambridge Assessment International Education

Cambridge Primary Checkpoint

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER			

3083164721

MATHEMATICS **0096/01**

Paper 1 **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 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.

1 Round 3.47 to the nearest whole number.

..... [1]

2 Calculate.

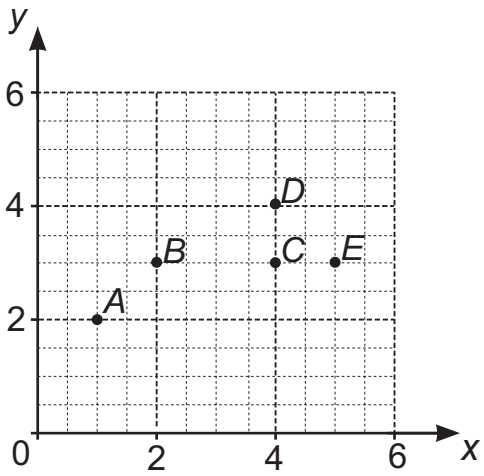
$\frac{5}{2}$ lots of 8

..... [1]

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

..... [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.

..... [1]

5 Complete these statements.

$-16 - 5 =$ ☐

$-16 + 5 =$ ☐

[1]

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

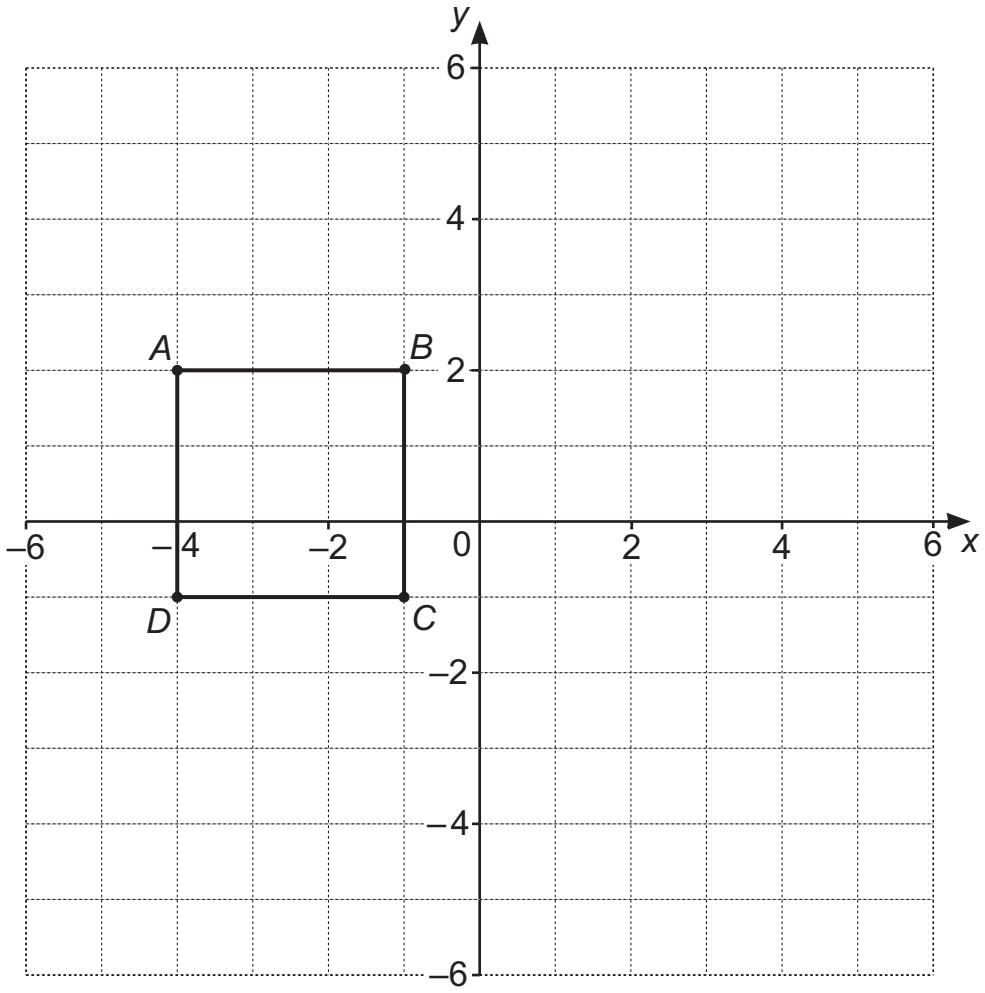
[1]

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

☐ + ☐ + ☐ = 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]

9 Draw a ring around **all** the calculations that are equivalent to 6 × 25 × 2 + 7

3 × 50 + 7 7 + 50 × 6 100 × 3 + 7 6 × 25 × 9

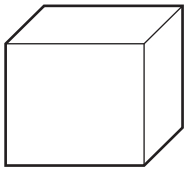
[1]

10 Here are four calculations.

17.2 × 4 17.09 × 4 1.72 × 39 1.7 × 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]

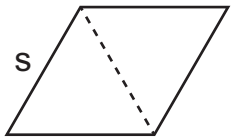
13 The perimeter, p, of an equilateral triangle with side length, s, is written as

$$p = s + s + s$$

(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.

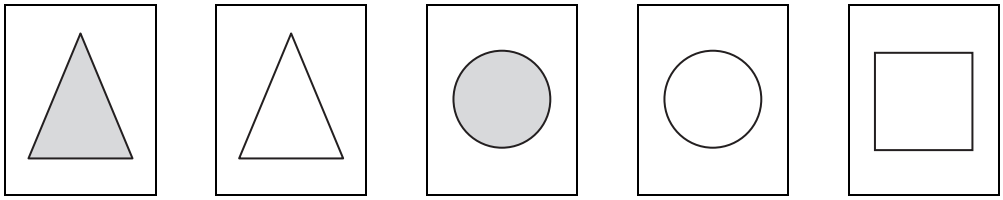
3	4	5	6

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

☐ ☐ ☐ ÷ ☐ =

[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]

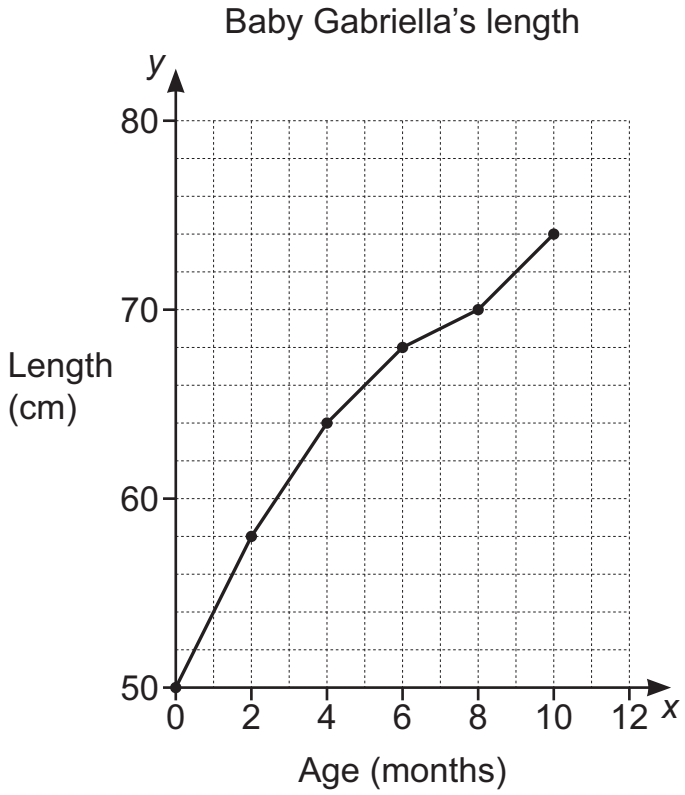
(b) Pierre picks **one** card at random.

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]

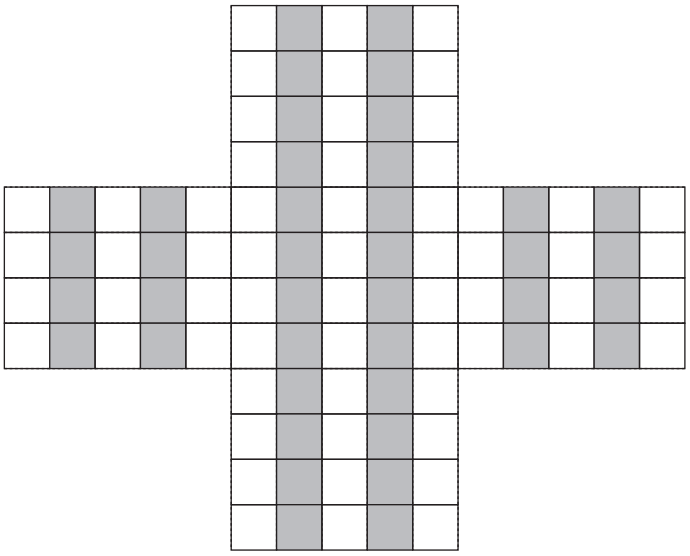
(b) Draw a ring around the age range when baby Gabriella grew the most.

0 – 2 months 2 – 4 months 4 – 6 months

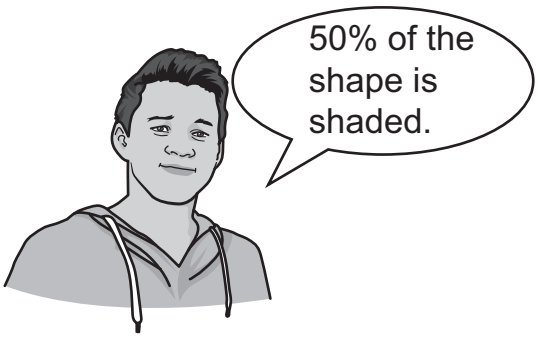
6 – 8 months 8 – 10 months 10 – 12 months

[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.

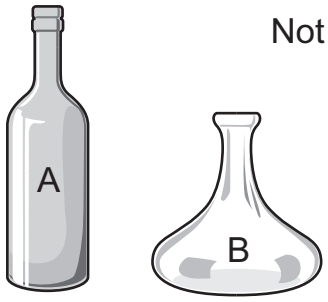
2	5	7

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

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

[1]

21 Here are two empty bottles.



Not drawn to scale

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	

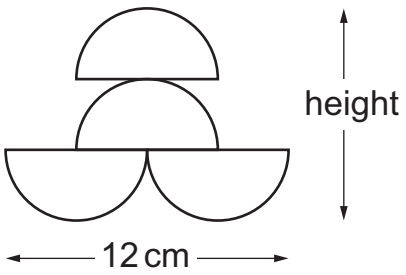
[1]

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

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

[1]

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

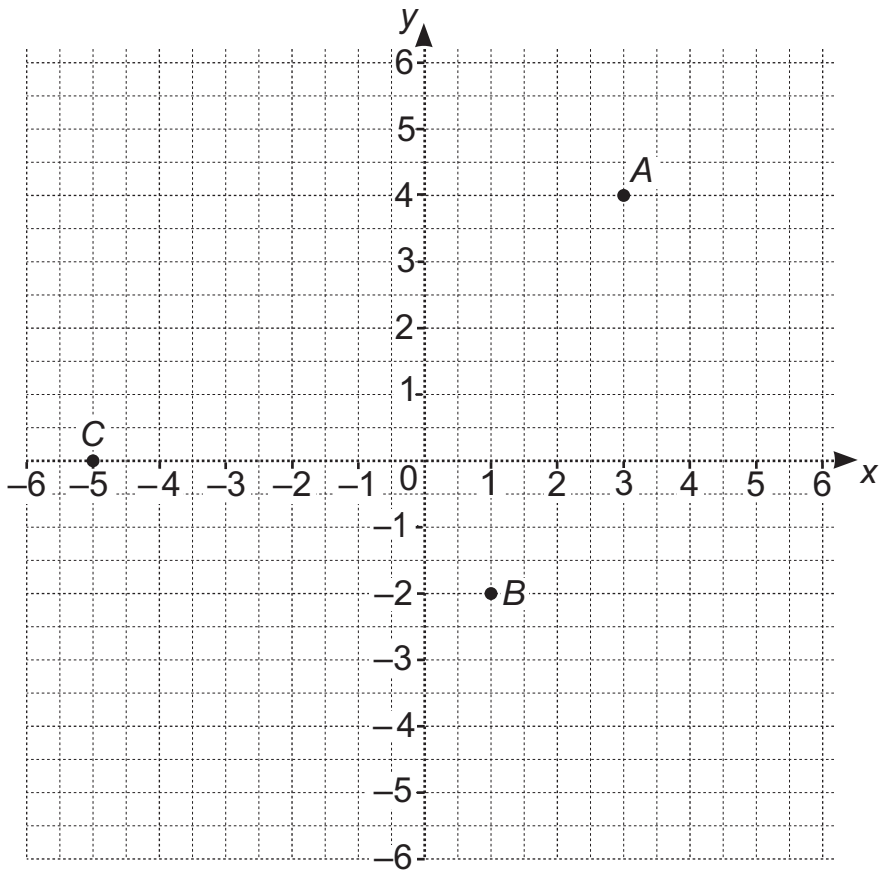


Not drawn to scale

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.

3	4	5	6

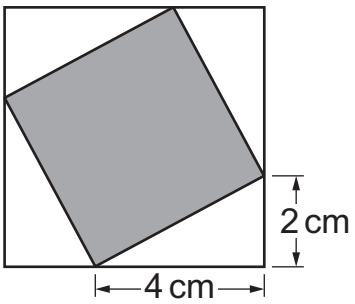
Lily uses the cards to make a 3-digit number that is divisible by 6

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.

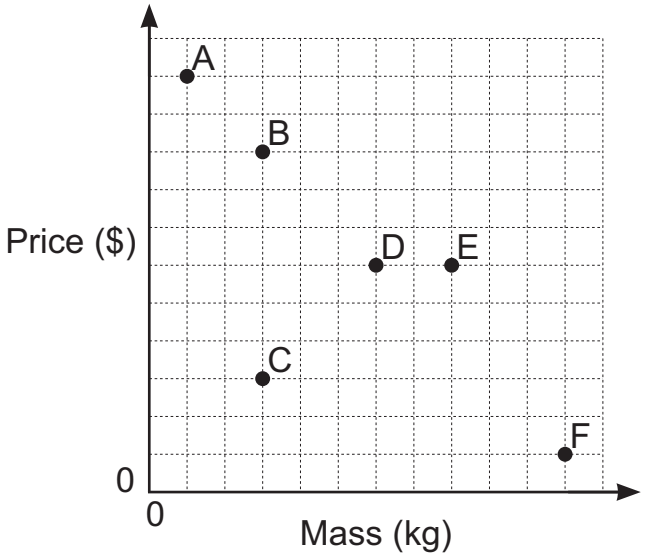
..... cm^2 [2]

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

6 tens + 308 hundredths + 47 thousandths = $\square\square.\square\square\square$

[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]

Cambridge Assessment International Education

Cambridge Primary Checkpoint

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER			

0969847269

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.

$\square \div \square$ 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]

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

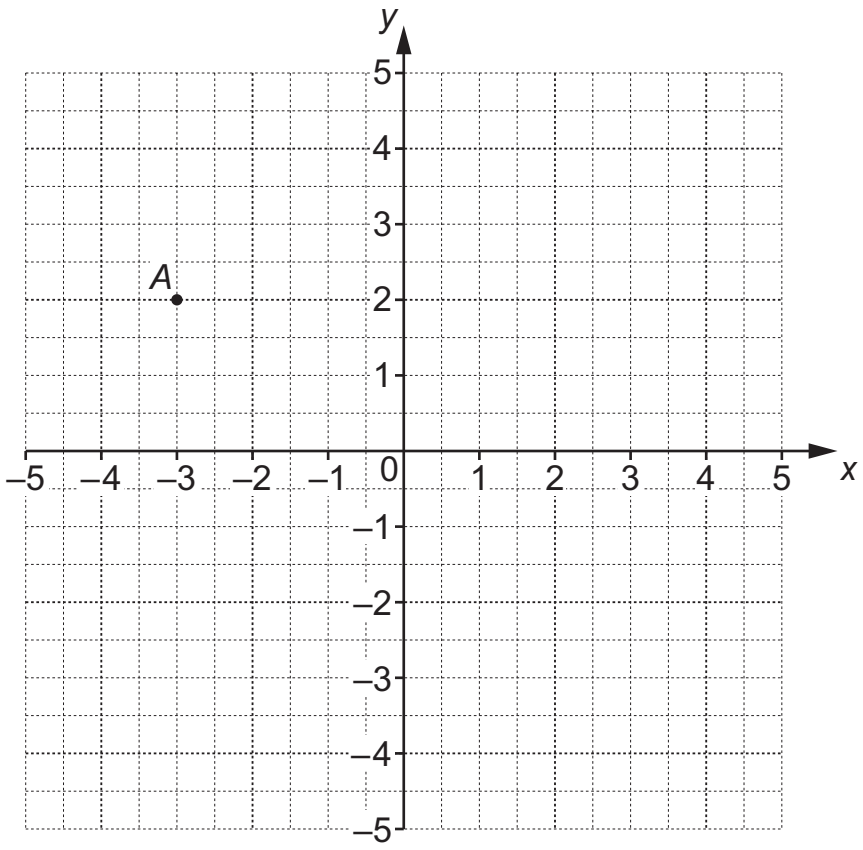
[1]

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	Greater than 13.56
125 tenths and 42 hundredths	
1 ten and 75 tenths	Less than 13.56
1 ten, 40 tenths and 36 hundredths	

[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.

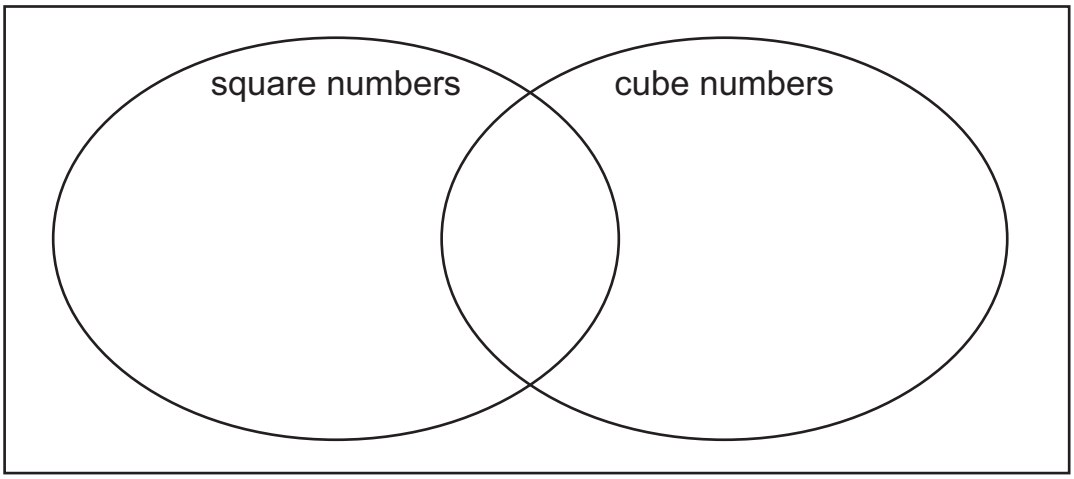
Write the 6th number in the sequence.

..... [1]

18 Here are some numbers.

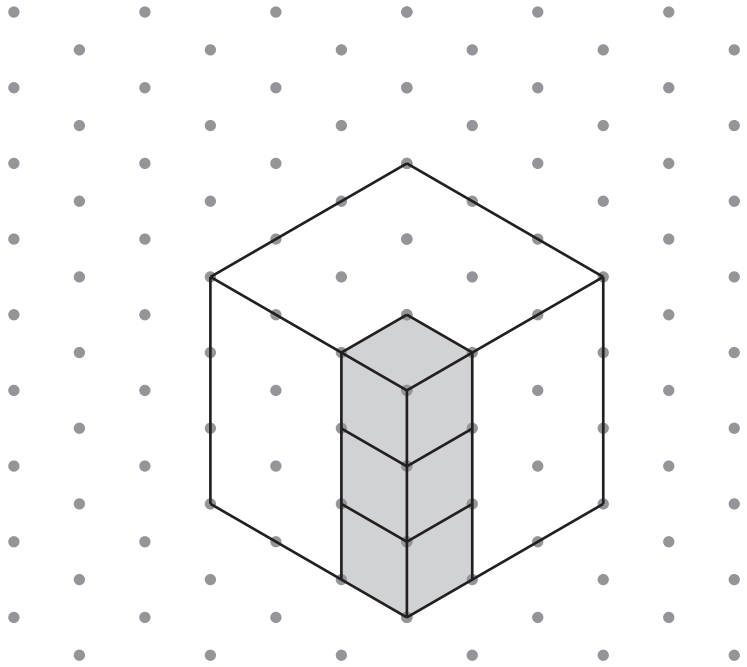
1 5 8 16 25 64

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.

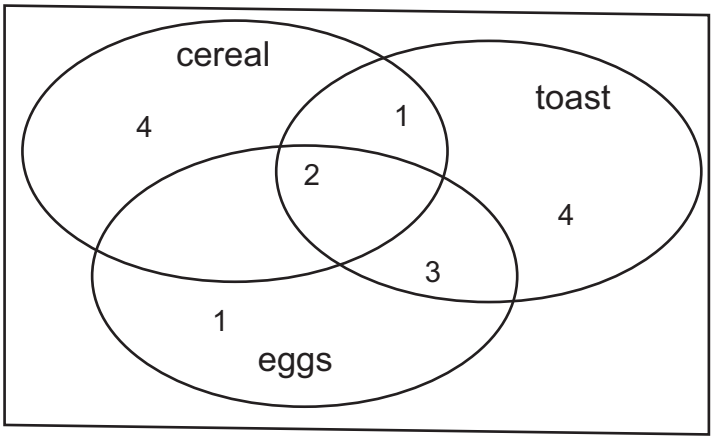
4.4 4.31 3.45 4.53 5.2

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

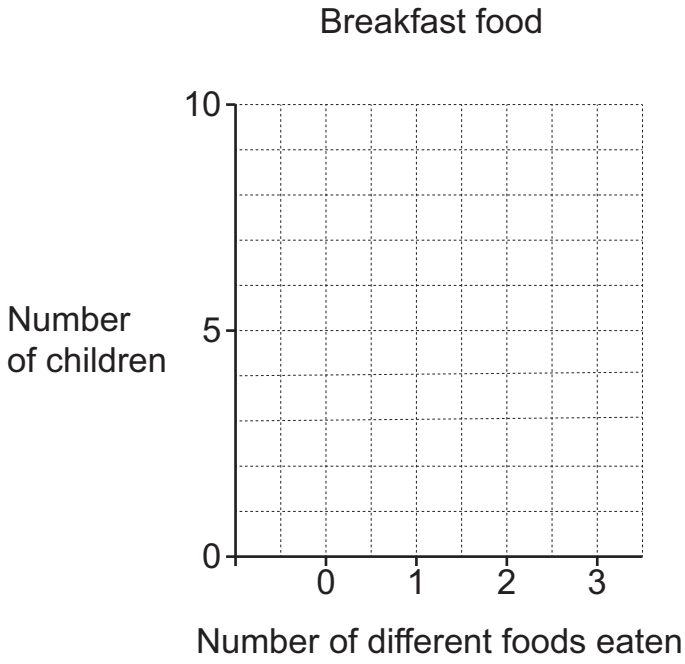
Write the 3rd number in his list.

..... [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.

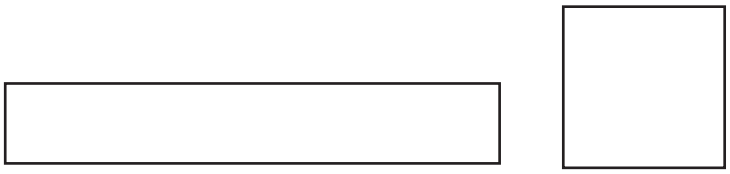
..... [1]

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

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

[1]

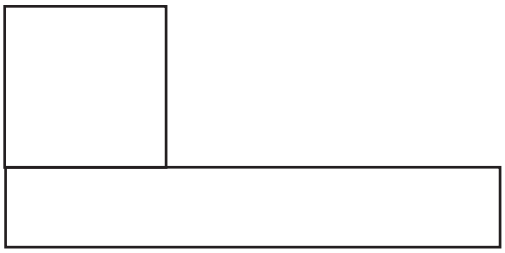
25 Here is a drawing of a rectangle and a square.



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.

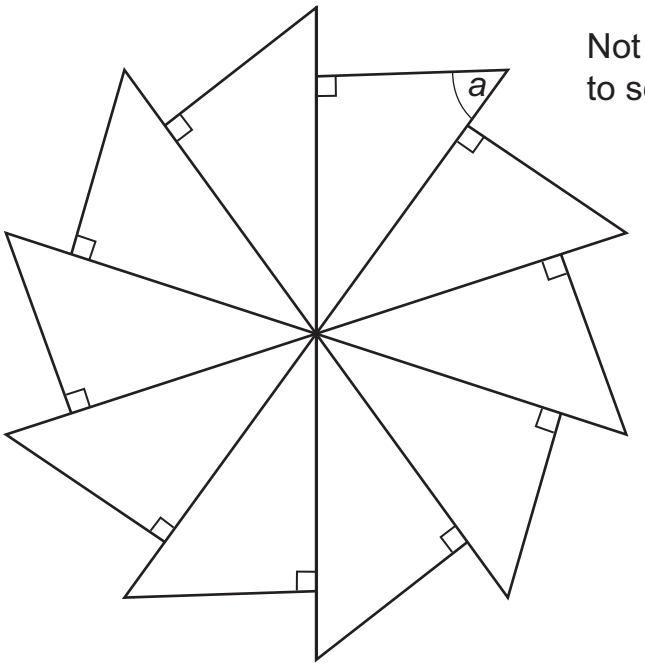
[2]

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.



Not drawn to scale

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]

Cambridge Assessment International Education

Cambridge Primary Checkpoint

MATHEMATICS **0096/01**

Paper 1 **October 2023**

MARK SCHEME

Maximum Mark: 40

Published

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Markers were instructed to award marks. It does not indicate the details of the discussions that took place at a Markers' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the End of Series Report. Cambridge will not enter into discussions about these mark schemes.

IB23 10_0096_01/6RP

Mark scheme annotations and abbreviations

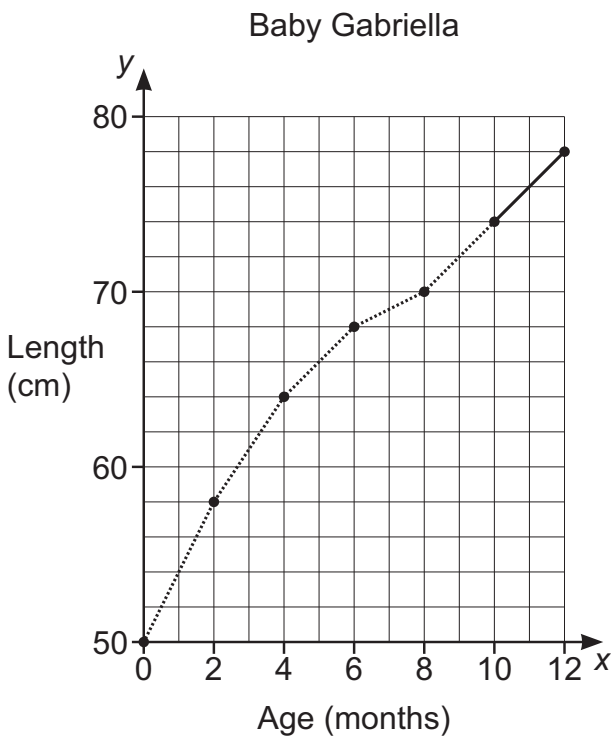
FT	follow through after error
SC	special case mark
cao	correct answer only
dep	dependent
isw	ignore subsequent working
nfww	not from wrong working
oe	or equivalent
soi	seen or implied

Question	Answer	Marks	Part Marks	Guidance
1	3	**1**		Do **not** accept 3.0 or 3.00
2	20	**1**		
3	$\frac{3}{5}$ cao	**1**		
4	*C* **and** *E*	**1**		Both answers correct in either order for the mark. Do **not** accept incorrect letters. Accept (4, 3) **and** (5, 3).
5	−21 −11	**1**		Both answers in the correct order for the mark. Do **not** accept 21− or 11−
6	An angle of 135° drawn.	**1**		Accept 133 – 137° inclusive.
7	3, 7, 13 **or** 5, 7, 11	**1**		All **three** numbers correct in any order for the mark.
8	(−1, 5)	**1**		Do **not** accept (1–, 5).
9	7 + 50 × 6 and 100 × 3 + 7	**1**		Both answers correct for the mark. Accept any clear indication.
10	17.2 × 4	**1**		Accept any clear indication.

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th><th>Part Marks</th><th>Guidance</th></tr>
<tr><td>11</td><td>54 (cm^2)</td><td>1</td><td></td><td></td></tr>
<tr><td>12</td><td>100° and 45° and 35°</td><td>1</td><td></td><td>All three answers correct for the mark.

Accept any clear indication.</td></tr>
<tr><td>13(a)</td><td>36 (cm)</td><td>1</td><td></td><td></td></tr>
<tr><td>13(b)</td><td>d = s + s + s + s</td><td>1</td><td></td><td>Accept any clear indication.</td></tr>
<tr><td>14</td><td>354 (÷) 6</td><td>1</td><td></td><td>All four digits in the correct order for the mark.</td></tr>
<tr><td>15(a)</td><td>C A B</td><td>1</td><td></td><td>All three letters in the correct order for the mark.</td></tr>
<tr><td>15(b)</td><td>
<table>
<tr><th>Event 1</th><th>Event 2</th><th>Mutually exclusive</th></tr>
<tr><td>Pierre picks a white shape</td><td>Pierre picks a grey shape</td><td>✓</td></tr>
<tr><td>Pierre picks a triangle</td><td>Pierre picks a grey shape</td><td></td></tr>
<tr><td>Pierre picks a circle</td><td>Pierre picks a triangle</td><td>✓</td></tr>
<tr><td>Pierre picks a square</td><td>Pierre picks a white shape</td><td></td></tr>
</table>
</td><td>1</td><td></td><td>Both ticks correct and none incorrect for the mark.

Accept any clear indication.</td></tr>
</table>

Question	Answer	Marks	Part Marks	Guidance
16(a)		**1**		Do **not** accept a correct point without a correct line completing the graph. Correct point implied by line drawn to (12, 78). Tolerance of ±2 mm to correct point in any direction.
16(b)	0 – 2 months	**1**		Accept any clear indication.

Question	Answer	Marks	Part Marks	Guidance
17	No ticked **and** An explanation showing that 50 squares should be shaded but fewer have been shaded, e.g. He has not shaded enough and there should be 50 and he has only done 40 **or** 40 shaded and 60 white. **or** 40 out of 100 squares are shaded. **or** 10 more shaded squares are needed.	**1**		Accept answers showing he has not shaded enough squares, e.g. Less than 50% of the squares are shaded. 50 squares may be expressed as, e.g. 50%, $\frac{1}{2}$, half, $\frac{50}{100}$, 0.5 oe Stating that $\frac{1}{2}$ (or 50%) is not shaded without quantifying greater or less is not sufficient. Accept equivalent answers which refer to the component parts. All numbers used must be correct.
18	1[.00], 0.98	**1**		Accept any equivalent answer.

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th><th>Part Marks</th><th>Guidance</th></tr>
<tr><td>19</td><td>6</td><td>2</td><td>Award 1 mark for sight of any two from
• 56 ÷ 8
• 1500 ÷ 250 or 1.5 ÷ 0.25
• 20 ÷ 2
or
• 8 × 7 = 56
• 250 × 6 = 1500
• 10 × 2 = 20</td><td>1 mark implied by sight of any two from
• 7
• 6
• 10
nfww</td></tr>
<tr><td>20</td><td>5 × (7 – 2)</td><td>1</td><td></td><td></td></tr>
<tr><td>21</td><td>1200 (ml)
600 (ml)</td><td>2</td><td>Award 1 mark for each correct answer.</td><td>Accept with other units if correct, e.g.
1 litre 200 ml</td></tr>
<tr><td>22</td><td><table><tr><th>Colour of bead</th><th>Number of beads</th></tr><tr><td>Red</td><td>3</td></tr><tr><td>White</td><td>1</td></tr><tr><td>Black</td><td>4</td></tr></table></td><td>1</td><td></td><td>All three answers correct for the mark.</td></tr>
<tr><td>23</td><td>$\frac{3}{20}$ or 0.15 oe</td><td>1</td><td></td><td></td></tr>
<tr><td>24</td><td>9 (cm)</td><td>1</td><td></td><td></td></tr>
</table>

Question	Answer	Marks	Part Marks	Guidance
25(a)	(2, 1)	**1**		Accept answer written on the grid.
25(b)	(–3, 6)	**1**		Accept answer written on the grid. Do **not** accept (3–, 6).
26	354, 534, 456, 546, 564, 654	**2**	Award 1 mark for two or more correct and no more than two incorrect.	Accept answers in any order. For 1 mark, accept numbers that use duplicate cards to make some of the correct numbers, i.e. 336, 366, 444, 636, 666 Award 2 marks if they list all 11 possibilities using duplicates.

Question	Answer	Marks	Part Marks	Guidance
27	20 (cm^2)	**2**	Award 1 mark for sight of 36 or 16 nfww **or** evidence that all four of the right-angled triangles have an area of 4 (cm^2) **or** a correct method with arithmetic errors,e.g. $(4 + 2) \times (4 + 2) - 4(\frac{1}{2} \times 4 \times 2)$ **or** $4\left(\frac{1}{2}\right) \times 4 \times 2) + (2 \times 2)$ oe	
28	63.127	**1**		
29(a)	F	**1**		
29(b)	C **and** D	**1**		Both answers correct in either order for the mark.

Question	Answer	Marks	Part Marks	Guidance
30	○ ○ ○ 12 ○ △ ○ 13 △ △ △ **15** 13 14 13	**1**		
31	Any number between 1.00 and 9.99 inclusive with 2 dp, e.g. 3.67	**1**		

Cambridge Assessment International Education

Cambridge Primary Checkpoint

MATHEMATICS **0096/02**

Paper 2 **October 2023**

MARK SCHEME

Maximum Mark: 40

Published

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Markers were instructed to award marks. It does not indicate the details of the discussions that took place at a Markers' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the End of Series Report. Cambridge will not enter into discussions about these mark schemes.

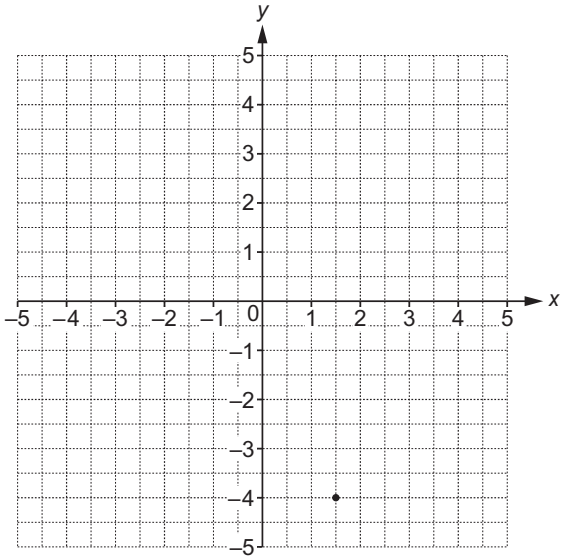
IB23 10_0096_02/7RP

Mark scheme annotations and abbreviations

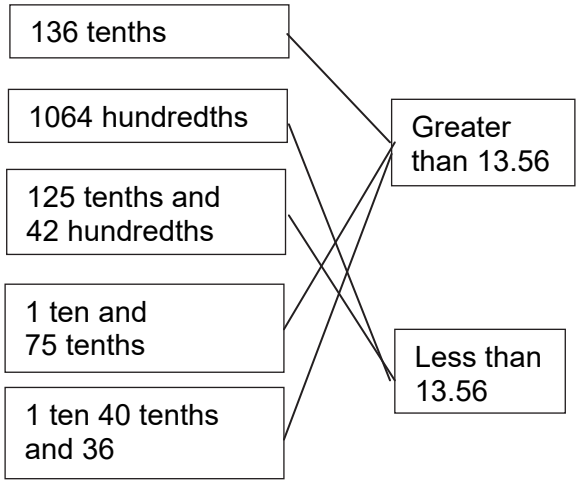
FT	follow through after error
SC	special case mark
cao	correct answer only
dep	dependent
isw	ignore subsequent working
nfww	not from wrong working
oe	or equivalent
soi	seen or implied

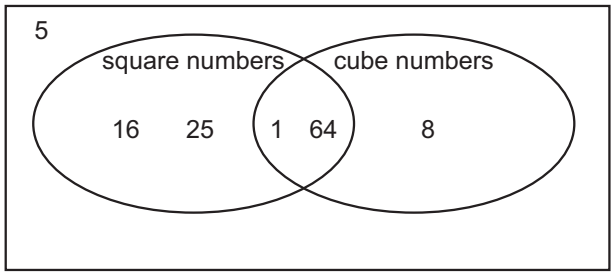
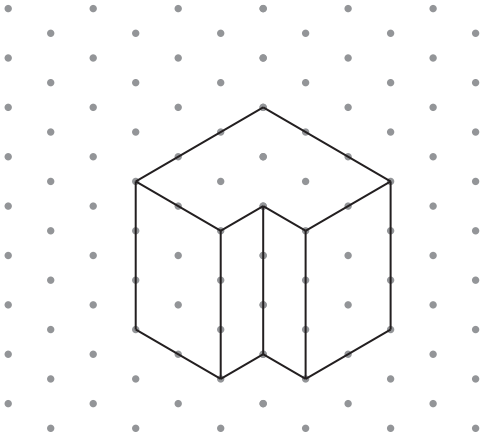
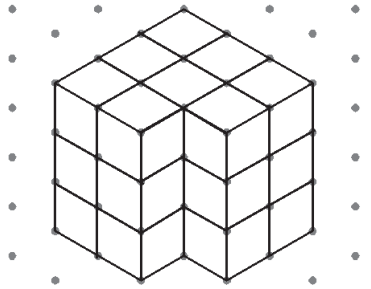
<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th><th>Part Marks</th><th>Guidance</th></tr>
<tr><td>1</td><td>138 (minutes)</td><td>1</td><td></td><td></td></tr>
<tr><td>2</td><td>2 ÷ 5 is $\frac{2}{5}$</td><td>1</td><td></td><td>Both numbers in the correct order for the mark.
Accept equivalent answers.</td></tr>
<tr><td>3</td><td>Equilateral triangle</td><td>1</td><td></td><td>Accept recognisable misspellings.
Do not accept
• Triangle (on its own)
• Equilateral (on its own)
• A sketch (on its own).</td></tr>
<tr><td>4</td><td>☑
☐
☑
☐</td><td>1</td><td></td><td>Both answers correct.
Accept any clear indication.</td></tr>
<tr><td>5</td><td>A circle of radius 4 cm correctly drawn.</td><td>1</td><td></td><td>Accept slight inaccuracies provided the intention is clear.

Accept radius in range 3.8 – 4.2 cm inclusive.</td></tr>
<tr><td>6</td><td><table><tr><th>Fraction</th><th>Decimal</th><th>Percentage</th></tr><tr><td>$\left(1\frac{1}{5}\right)$</td><td>1.2</td><td>120%</td></tr><tr><td>$\frac{\mathbf{3}}{\mathbf{10}}$ oe</td><td>0.3</td><td>(30%)</td></tr><tr><td>$\frac{\mathbf{54}}{\mathbf{100}}$ oe</td><td>(0.54)</td><td>54%</td></tr></table></td><td>2</td><td>Award 1 mark for three or more correct answers.</td><td>Accept equivalent fractions.
Accept percentage signs missing in final column.</td></tr>
</table>

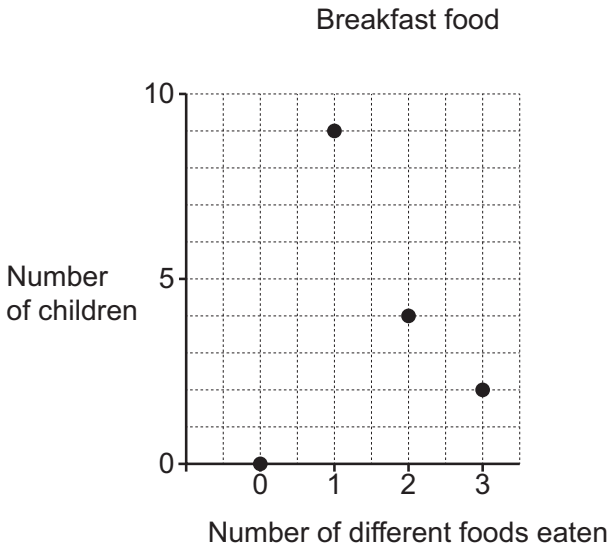
Question	Answer	Marks	Part Marks	Guidance
7(a)	(−3, 2)	**1**		Do **not** accept (3−, 2)
7(b)	Point correctly marked at $(\frac{3}{2}, -4)$.  	**1**		Accept the point plotted close to (1.5, −4) provided the intention is clear. Do **not** accept a point that is 2 mm away for this question.
8(a)	Any multiple of 36 e.g. 36	**1**		Accept if more than one correct answer is given with no incorrect answers.
8(b)	1 **or** 2 **or** 3 **or** 6	**1**		Accept if more than one correct answer is given with no incorrect answers.

Question	Answer	Marks	Part Marks	Guidance
9	☐ ☐ ✓ ☐	**1**		Accept any clear indication.
10	$\frac{11}{12}$ oe	**1**		Accept any equivalent fractions.
11	✓ ☐ ✓ ✓	**1**		All **three** answers correct. Accept any clear indication.
12	thousandths	**1**		Accept recognisable misspellings. Do **not** accept thousands. Do **not** accept $\frac{1}{1000}$ or other numbers.
13	–7 **and** –49	**1**		Both answers correct for the mark. Accept any clear indication.

Question	Answer	Marks	Part Marks	Guidance
14		**2**	Award 1 mark for **three** or **four** correct lines.	
15(a)	9 cao	**1**		
15(b)	180 (weeks)	**1**		
16	kite	**1**		Accept any clear indication.
17	72	**1**		

Question	Answer	Marks	Part Marks	Guidance
18		**2**	Award 1 mark for **four** or **five** numbers in correct position.	Do **not** accept repeated numbers. Ignore any additional numbers.
19		**1**		All lines must be shown to define the shape. Accept any lines that reference the smaller cubes, i.e. any of  Do **not** accept any additional lines except those referencing the smaller cubes. Accept slight inaccuracies provided the intention is clear.

Question	Answer	Marks	Part Marks	Guidance
20	Accept any correct explanation, e.g. • All the bags could have a different mass and each would need its own bar. • Any answer that refers to there being 30 bags/bars which would make the bar chart too large [therefore not the best representation of the data]. • Bar charts are used to display data that can be counted. • The data would be better shown in a line graph or a frequency diagram. • The data would need to be grouped to be shown on a bar chart. • Bar charts are not used to display data that is measured [unless it is grouped]. • Bar charts are usually used for discrete data.	**1**		
21	4.4	**1**		Accept any clear indication.

Question	Answer	Marks	Part Marks	Guidance
22		**2**	Award 1 mark for **one** or more correct dots.	Accept if all or any dots up to the maximum are plotted for each different number of foods.
23	A	**1**		
24	1	**1**		
25	length 14 (cm) width 2 (cm) **or** length 8 (cm) width 2 (cm)	**2**	Award 1 mark for **any** square and rectangle with a total area of 32 e.g. length 31 (cm) width 1 (cm) **or** for two squares with a total area of 32 e.g. length 4 (cm) width 4 (cm)	Length and width can be in either order.

Question	Answer	Marks	Part Marks	Guidance
26	25(%)	**2**	Award 1 mark for sight of $\frac{60}{240}$ **or** $\frac{0.6}{2.4}$ **or** 0.25 or $\frac{1}{4}$ **or** answer of 12.5% **or** for final answer 75%	
27	0.9	**1**		
28	54(°)	**2**	Award 1 mark for sight of 36(°) nfww **or** full correct method, e.g. $90 - \left(\frac{360}{10}\right)$ = wrong answer.	
29	<table><tr><td>Exactly one of the three new children must be 120 centimetres tall</td><td></td></tr><tr><td>Exactly two of the three new children must be 120 centimetres tall</td><td>✓</td></tr></table> <table><tr><td>The three new children have a total height of 300 centimetres</td><td></td></tr><tr><td>The three new children have a total height of 400 centimetres</td><td>✓</td></tr></table>	**2**	Award 1 mark for **each** correct answer.	Accept any clear indication.

Cambridge Assessment International Education

Cambridge Primary Checkpoint

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER			

3714036265

MATHEMATICS **0096/01**

Paper 1 **April 2024**

45 minutes

You must answer on the question paper.

You will need: Compasses
Protractor
Tracing paper (optional)

INSTRUCTIONS

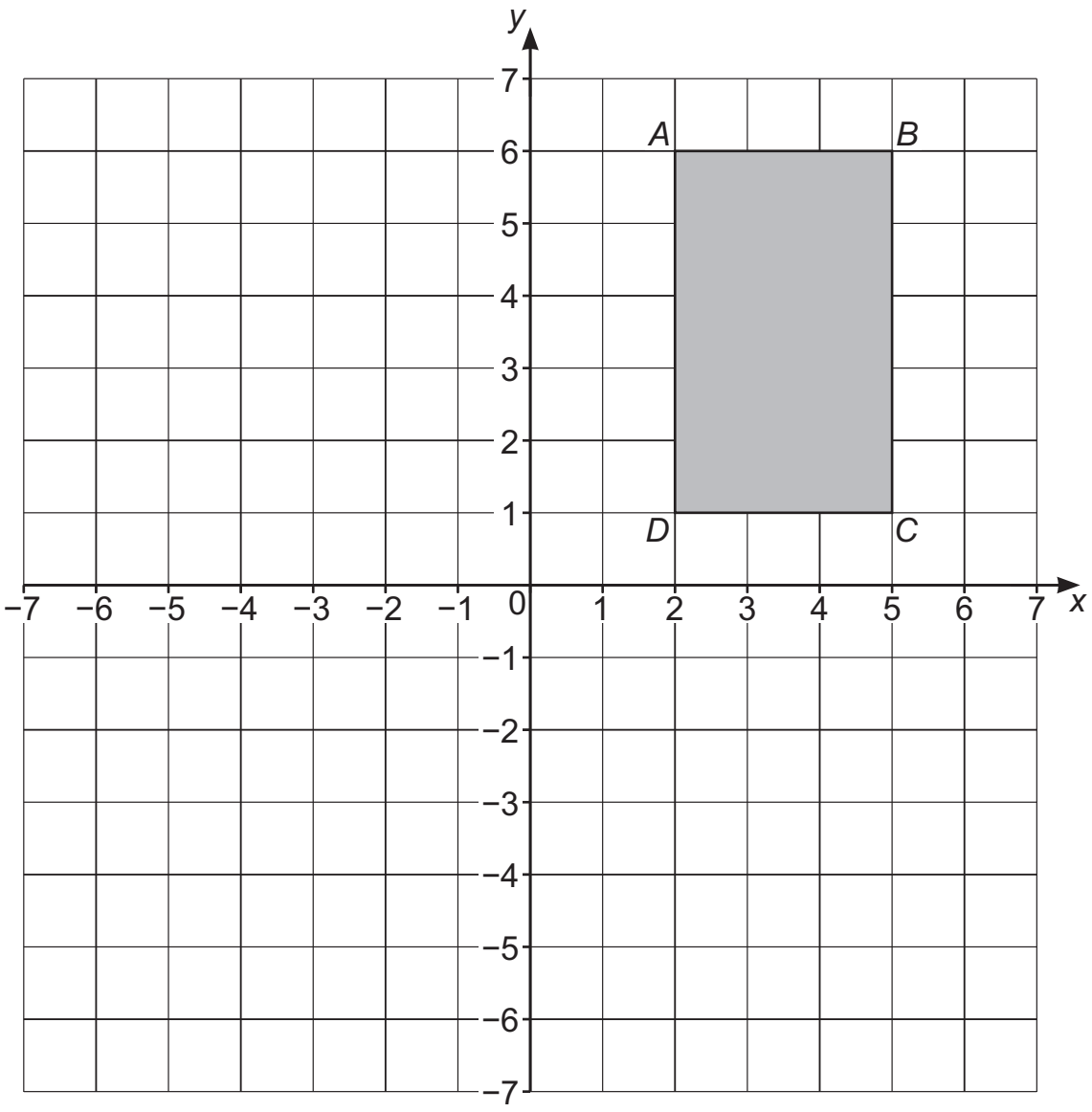
- Answer **all** questions.
- Use a black or dark blue pen. You may use an HB pencil for any diagrams or graphs.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction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

INFORMATION

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

This document has **20** pages.

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



Oliver translates the rectangle four squares down.

Write the new coordinates of *B*.

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

2 Mia has a bar of chocolate.

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

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

Mia is **not** correct.

Explain how you know.

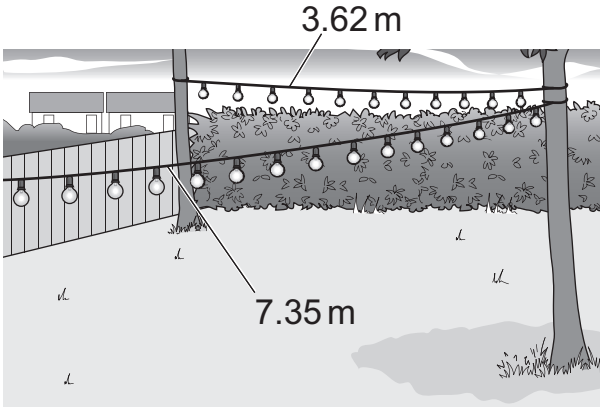
.....

.....

..... [1]

3 Angelique decorates her garden with two sets of lights.

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



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

..... metres [1]

4 Here is a number.

38.04

Multiply the number by 1000
Write the answer.

..... [1]

5 Here are four calculations.

360 ÷ 4	0.36 ÷ 4	36 ÷ 4	3.6 ÷ 4

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

6 Calculate.

345 ÷ 15

..... [1]

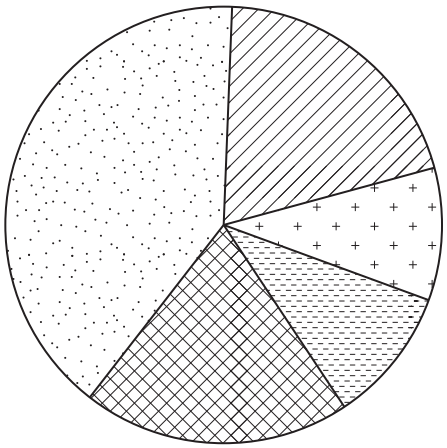
7 Rajiv records the vehicles that pass his house one morning.

Here are his results.

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

Rajiv records the results in a pie chart.

Complete the key for his pie chart.



Key	
	vans
	bicycles

[1]

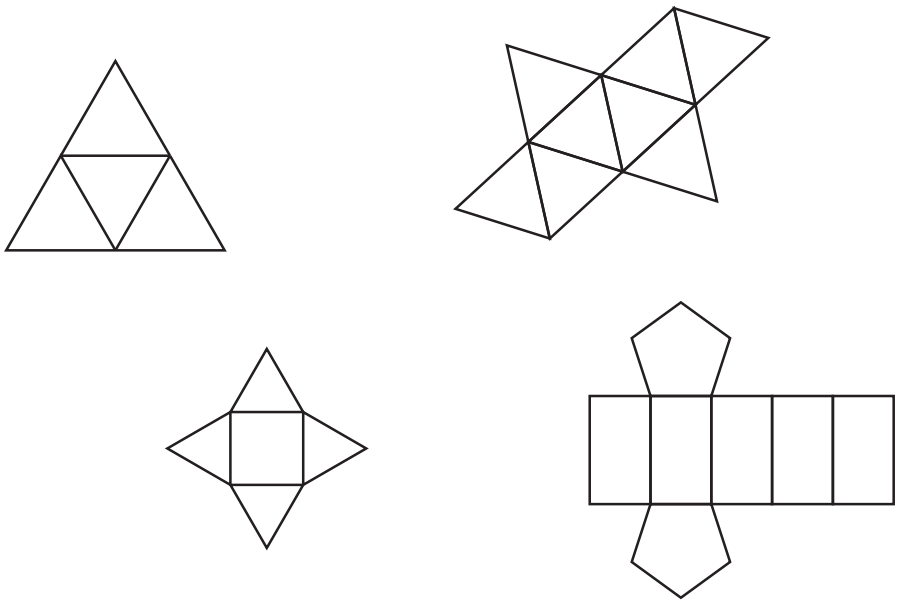
8 Pierre has 12 pieces of pizza.
Each piece is $\frac{1}{8}$ of a whole pizza.

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

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

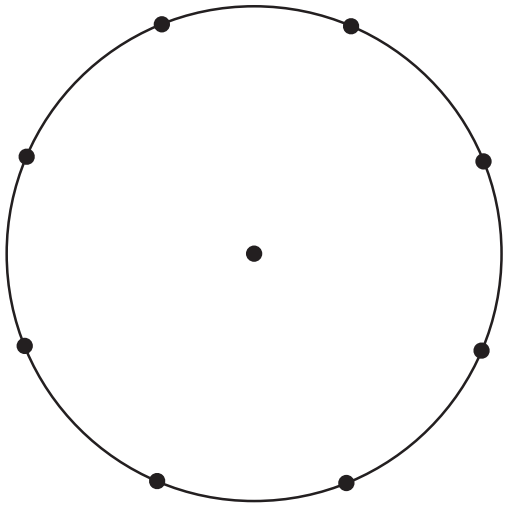
[1]

9 Here are the nets of some 3D shapes.



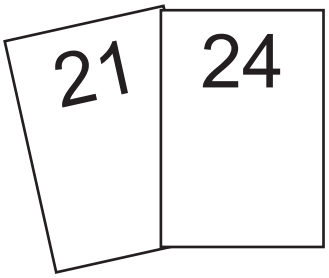
Draw a ring around the net of the prism. [1]

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

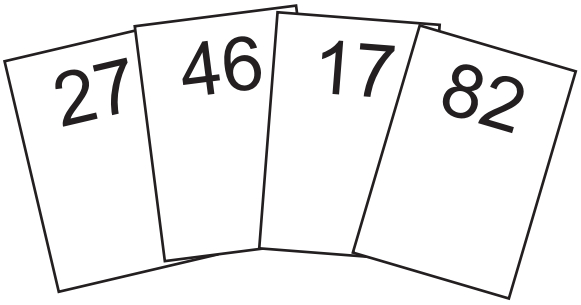


Join **three** dots to draw a right-angled triangle. [1]

11 Here are two sets of cards.



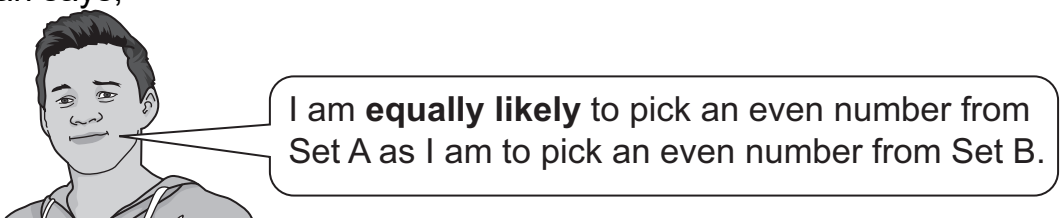
Set A



Set B

Hassan picks one card from each set at random.

Hassan says,



Tick (✓) to show if Hassan is correct.

Yes ☐ No ☐

Explain how you know.

.....

.....

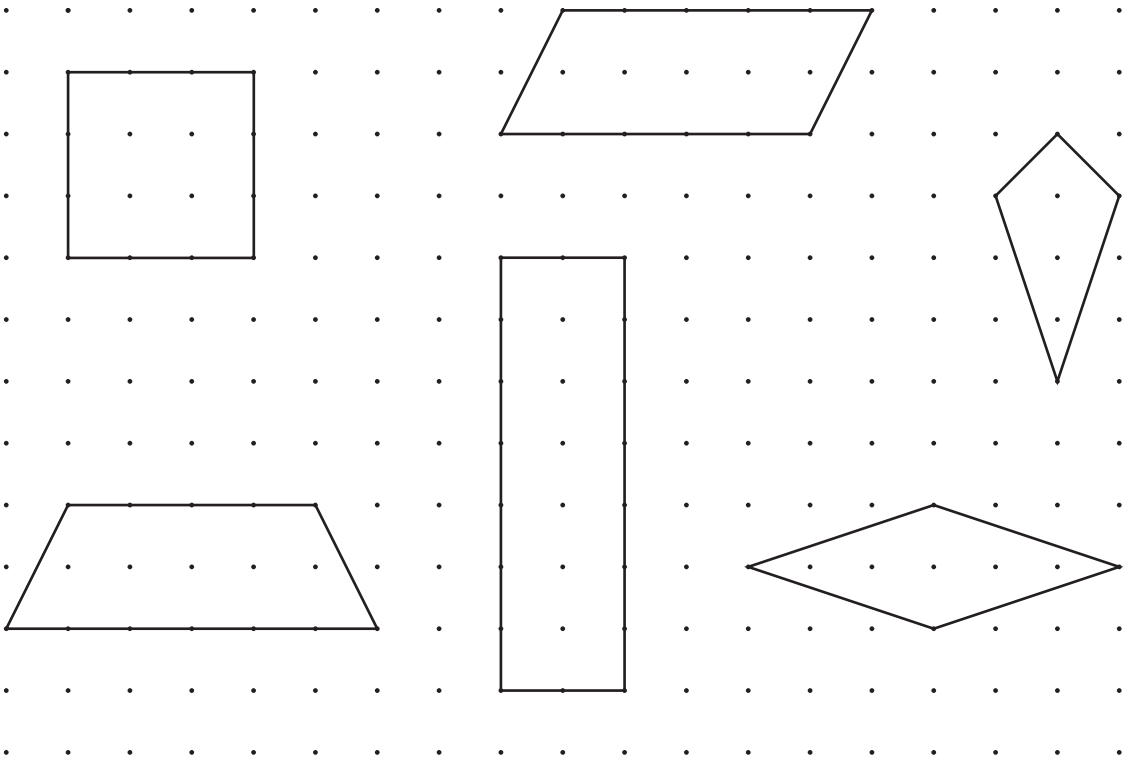
[1]

12 An aeroplane carries 269 passengers each day.

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

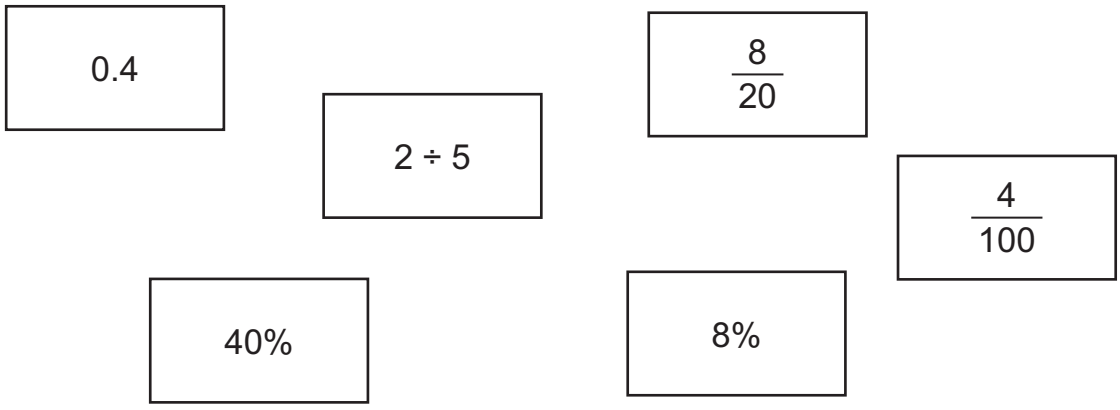
..... [1]

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



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

14 Safia writes on some cards.

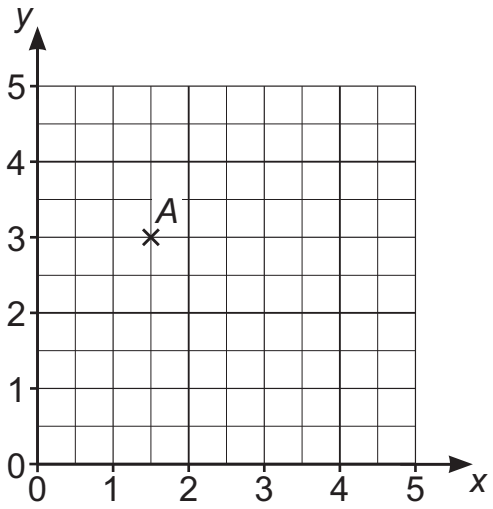


Draw a ring around **all** the cards that show equivalent values. [2]

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

[1]

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



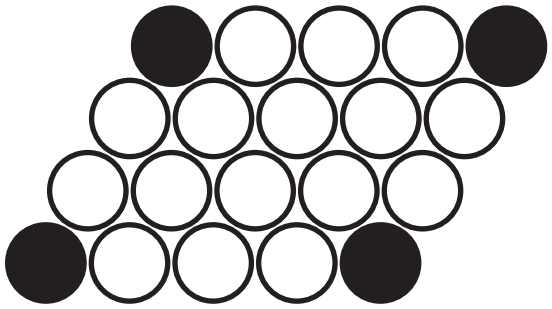
(a) Write the coordinates of point *A*.

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

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

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

17 Jamila makes a shape with black and white counters.



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

..... % [1]

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

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

heads
heads
tails
heads

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

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

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

☐ Do four more trials with a different coin.

☐ Do six more trials but flip the coin higher.

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

☐ Do ten more trials.

[1]

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

$$\square - 12 = -20$$

[1]

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

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

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

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

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

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

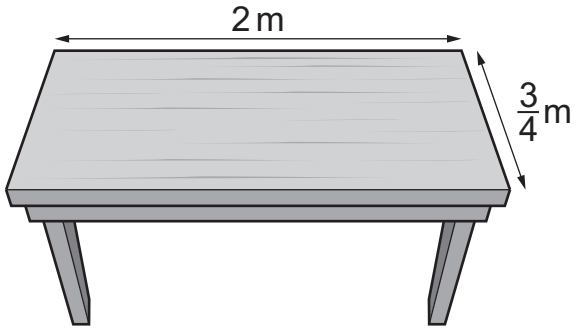
a = ... and *b* = ...

[2]

21 A table has a rectangular top.

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

Not drawn to scale



Calculate the area of the top of the table.

..... m^2 [1]

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

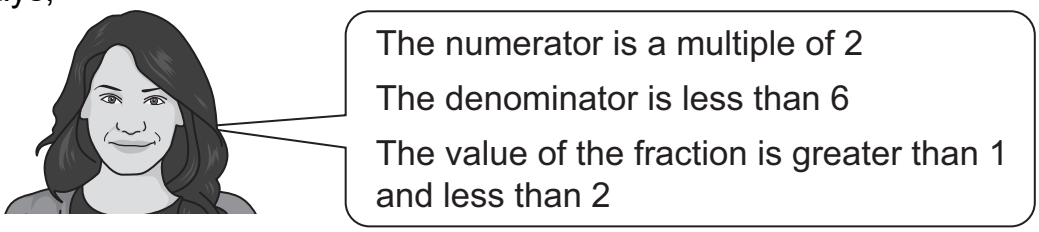
Write the missing digit in the box.

3	1	4	

[1]

23 Lily chooses an improper fraction.

She says,



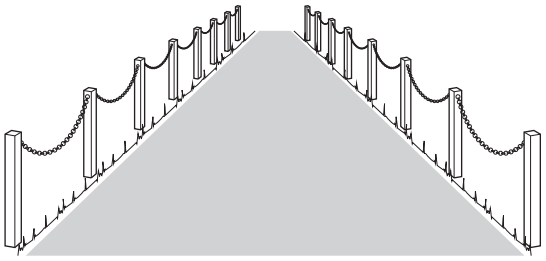
Write a fraction that Lily could choose.

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

[1]

24 Ahmed fixes chains between some posts.

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



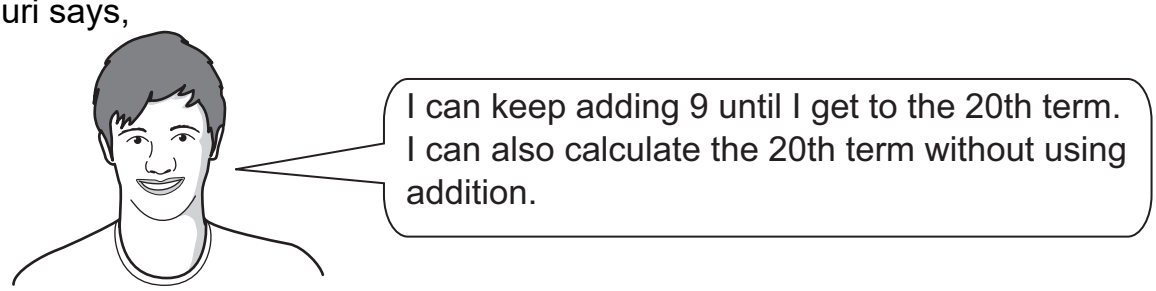
Calculate the total length of chain Ahmed uses.

..... metres [1]

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

9 18 27 36 45

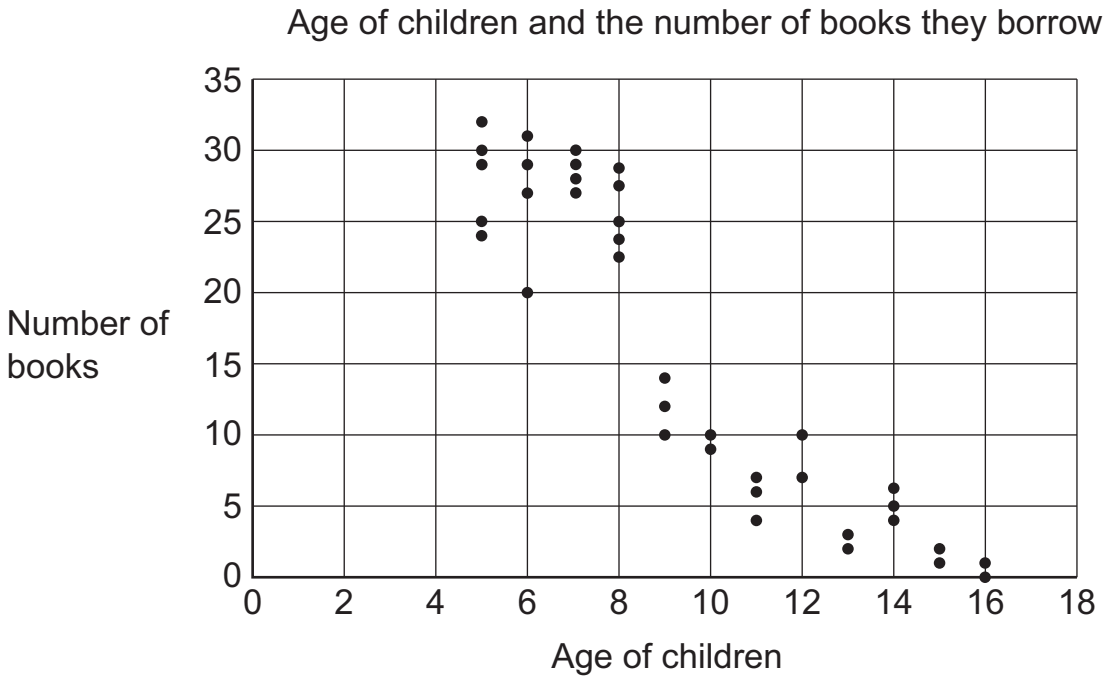
Yuri says,



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

..... [1]

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



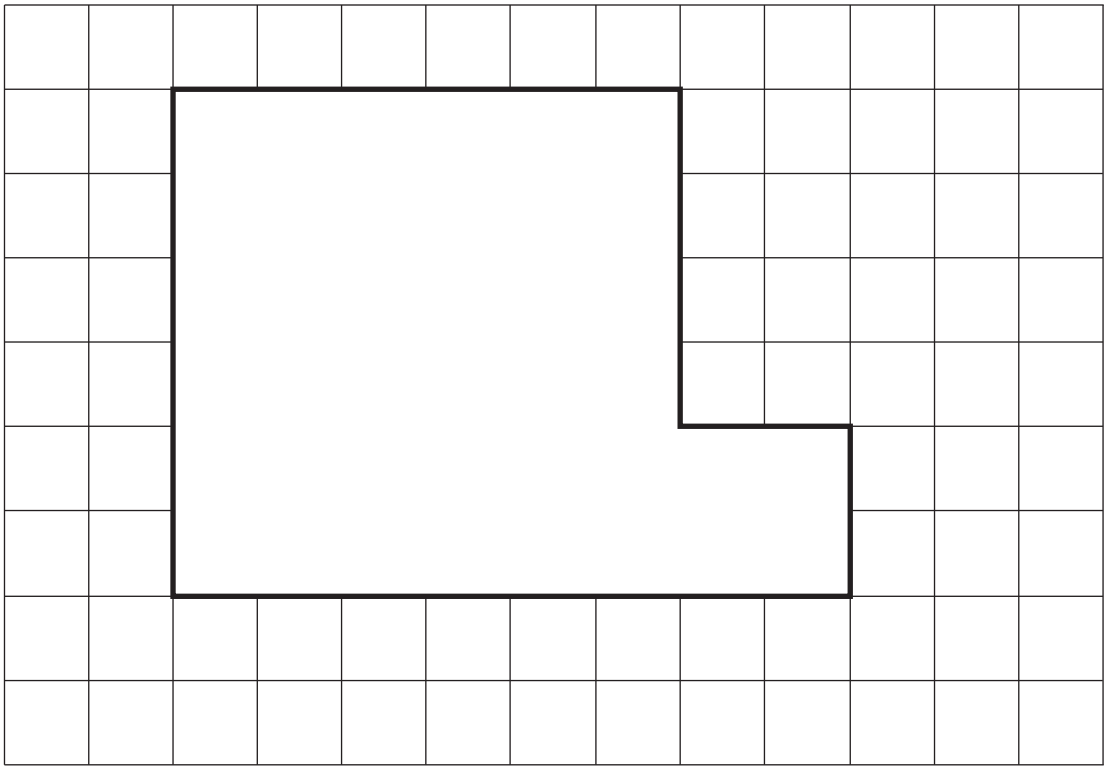
Tick (✓) to show whether the statements about the information in the graph are true or false.

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

[1]

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

The side of each square is 1 cm.



Not drawn to scale

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

$6^2 + 2^2$ ☐

$6^2 - 2^2$ ☐

$6 \times 4 + 2 \times 4$ ☐

$6 \times 6 + 4$ ☐

$6 \times 4 + 4$ ☐

[1]

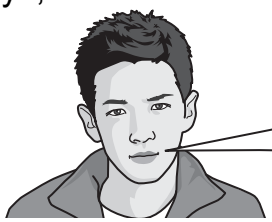
28 Write a number in each box to make this calculation correct.

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

[1]

29 Chen chooses a 3D shape.

Chen says,



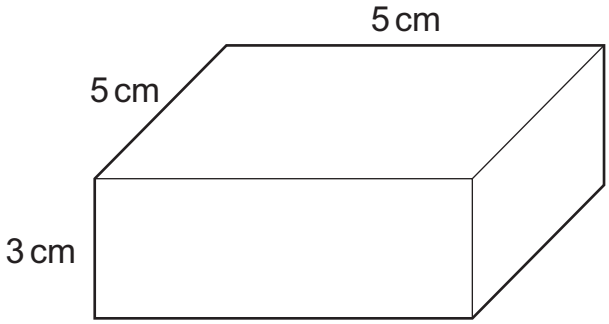
My shape has 2 triangular faces and 3 rectangular faces.

Sketch a shape that Chen could choose.

[1]

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

Not drawn to scale



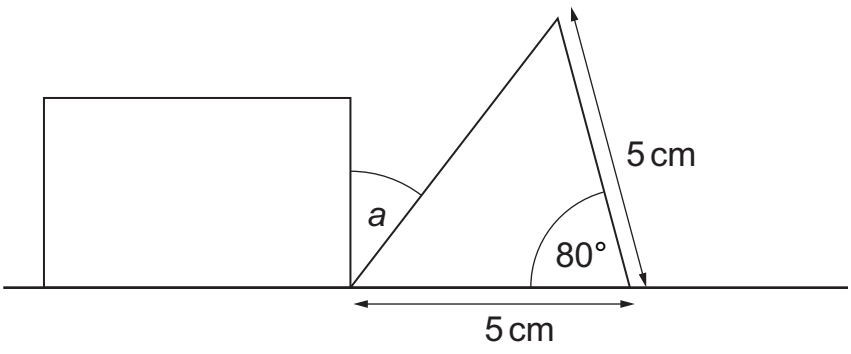
Each square has an area of 25 cm^2.
Each rectangle has an area of 15 cm^2.

Calculate the surface area of the cuboid.

..... cm^2 [2]

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

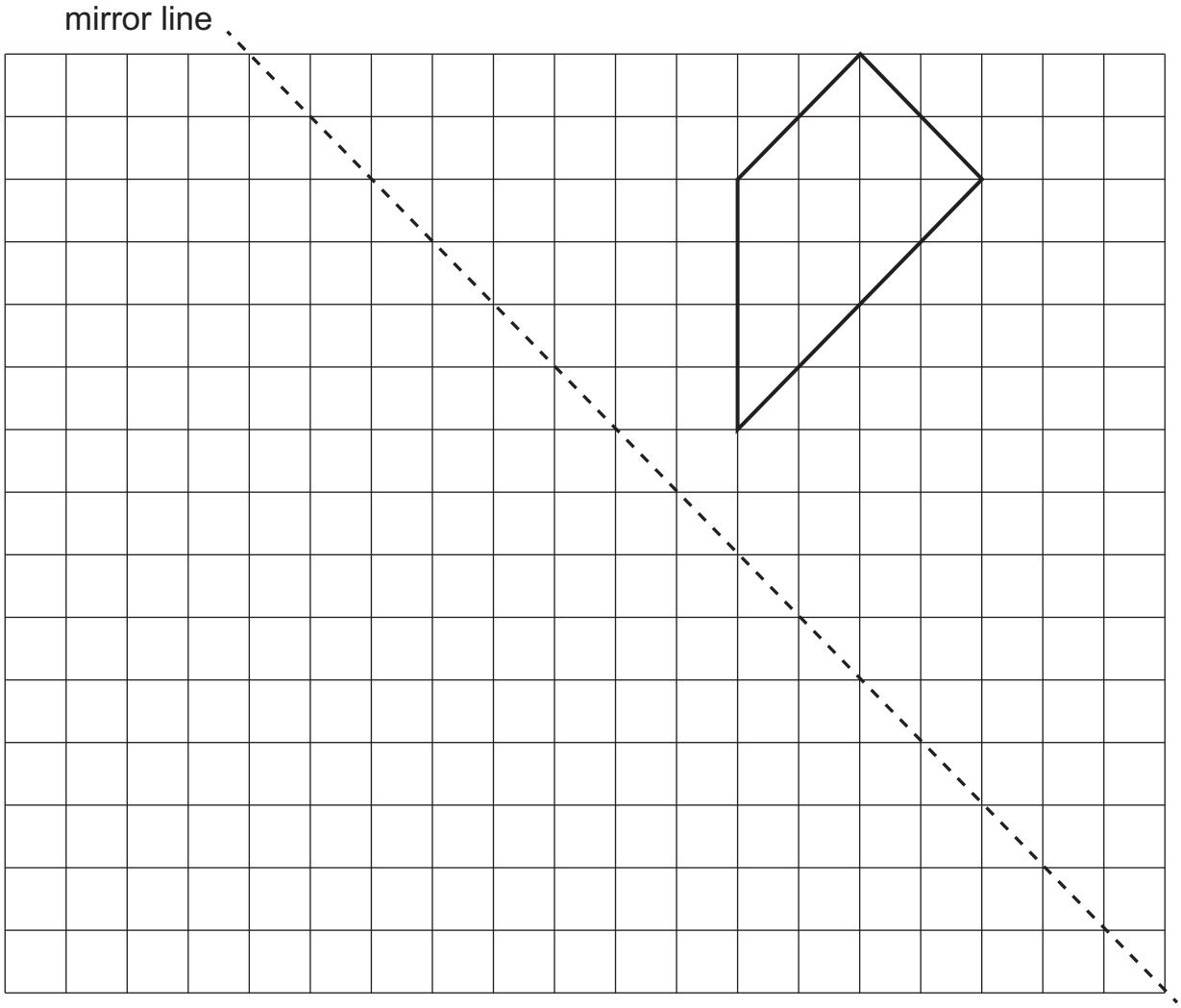
Not drawn to scale



Calculate the value of the angle marked *a*.

..... ° [1]

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



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

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

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

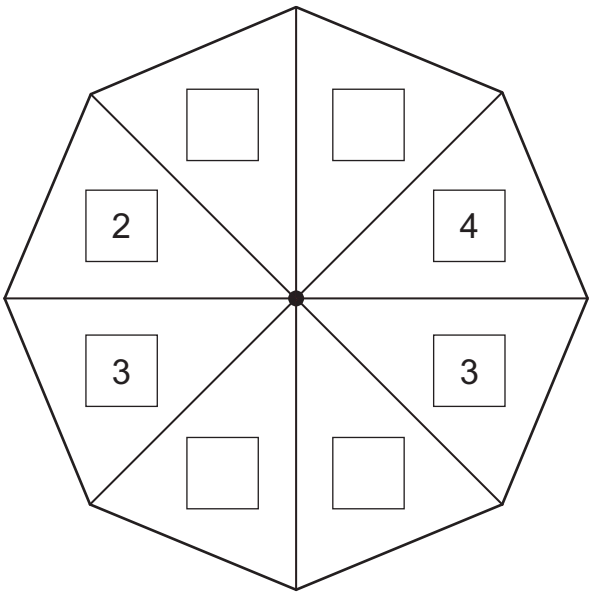
[2]

34 Gabriella makes a spinner using numbers less than 10

She spins the spinner 1000 times.

Her results show that

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



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

Cambridge Assessment International Education

Cambridge Primary Checkpoint

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER			

7192504285

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 [ ].

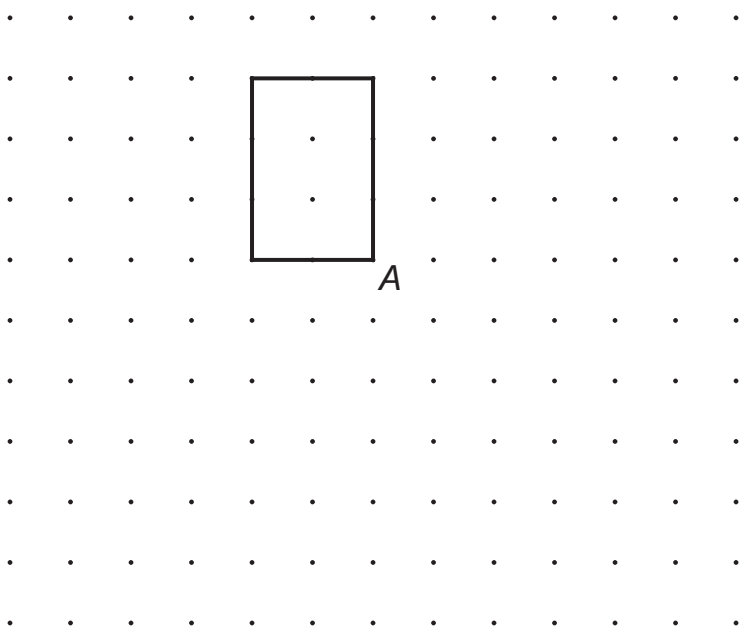
This document has **20** pages.

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*.



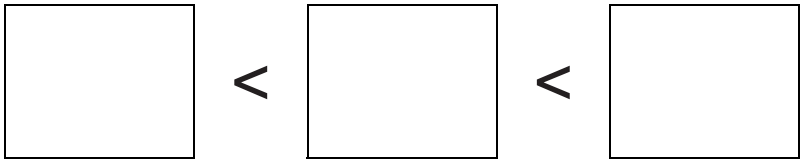
The rectangle is rotated 90 degrees clockwise around vertex *A*.

Draw the rectangle in its new position. [1]

3 Here are some numbers.

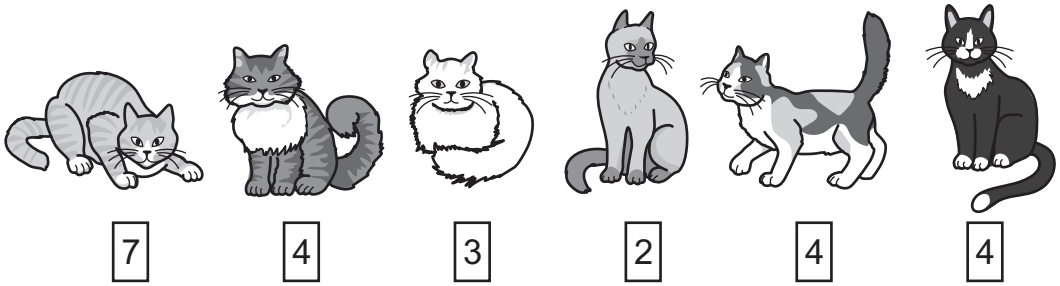
$$\frac{3}{4} \qquad 45\% \qquad 0.6$$

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



[1]

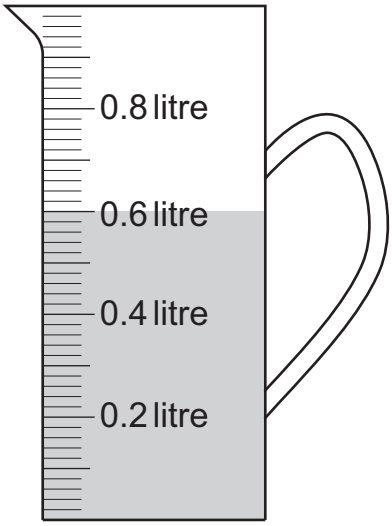
4 Pierre has six cats.
The cards show the age of each cat in years.



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.

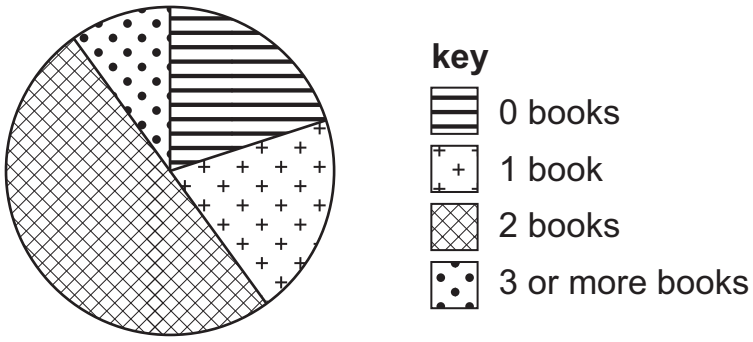
Data from Class R is recorded in a table.

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

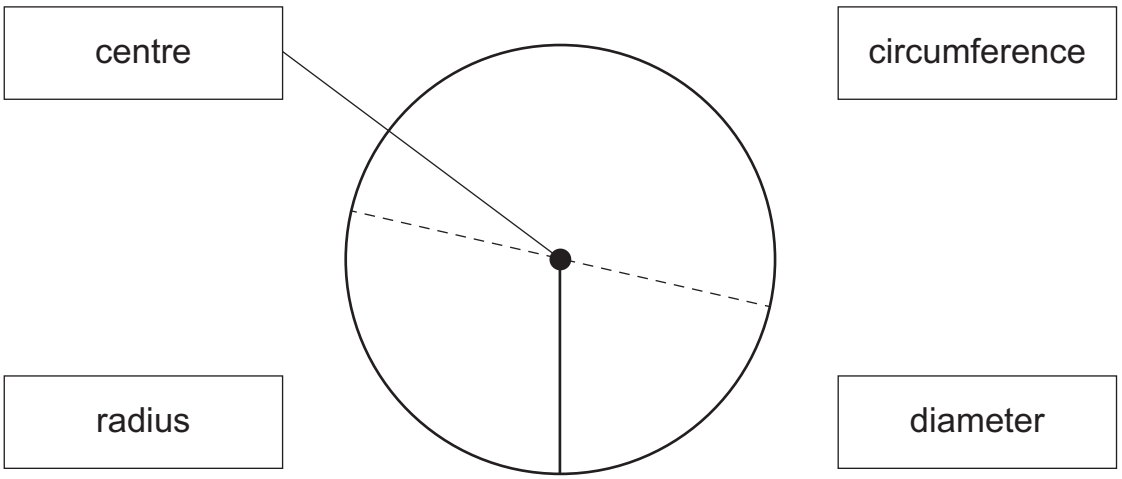


Gabriella wants to compare the number of children in each class who read 2 books in a month.

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

..... [1]

7 Here is a circle.
The centre is marked.



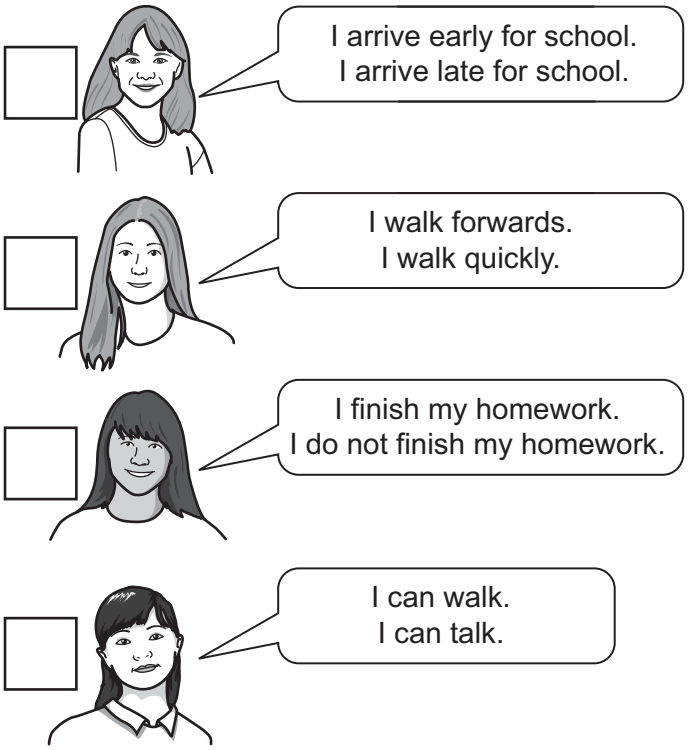
Draw a line to match each label to the correct part of the circle. [1]

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

$$46 \times 34 = 46 \times \square + \square \times 4$$

[1]

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



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.

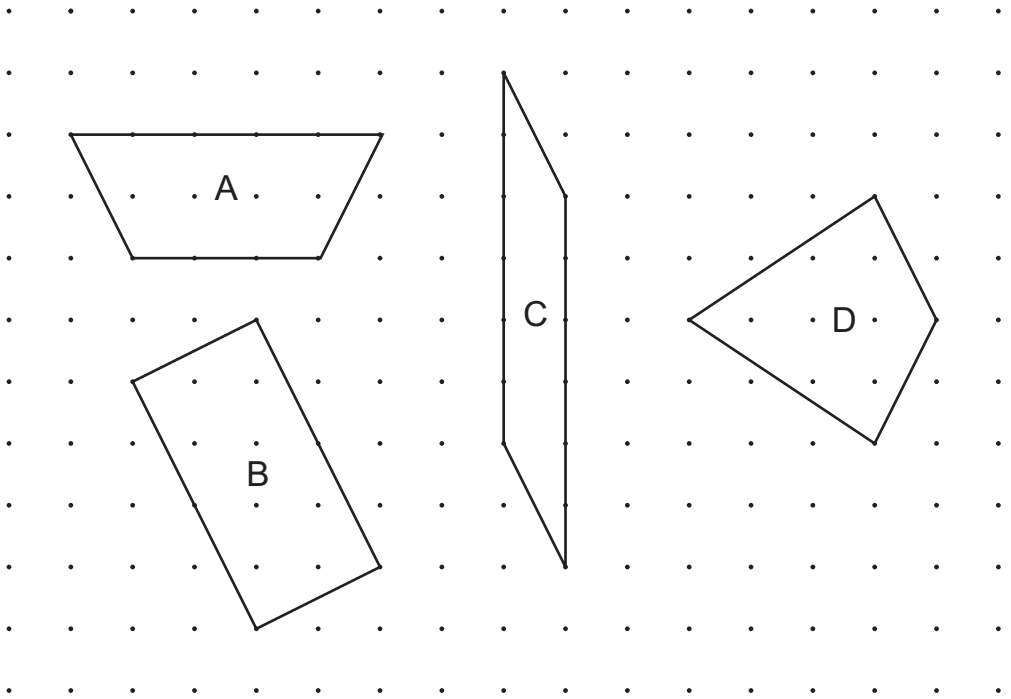
.....

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.

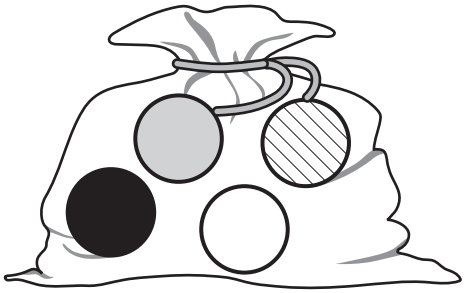
..... [1]

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

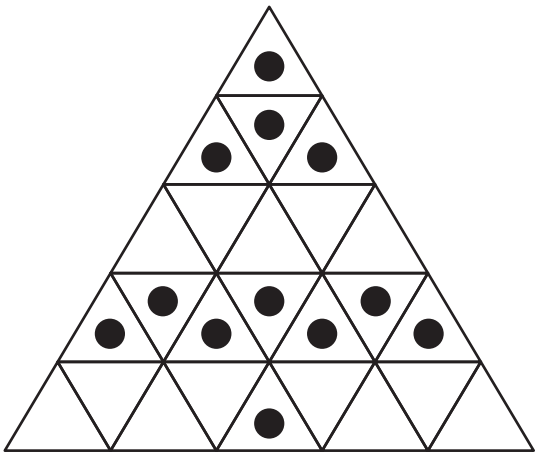
[1]

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

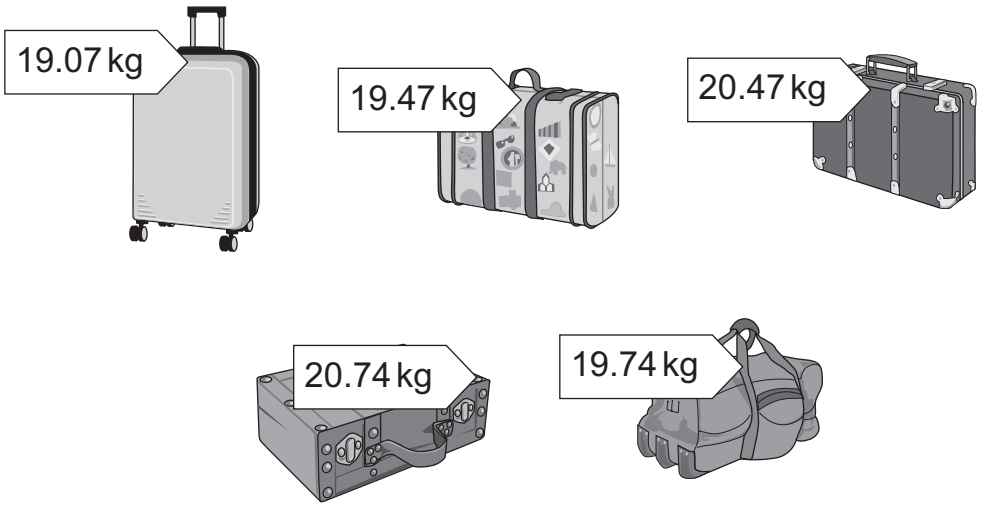
Write the 8th term in the sequence.

..... [1]

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

..... [1]

19 Here are some suitcases.

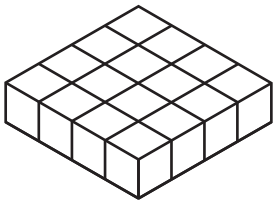


The mass of each suitcase is shown on the label.

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.

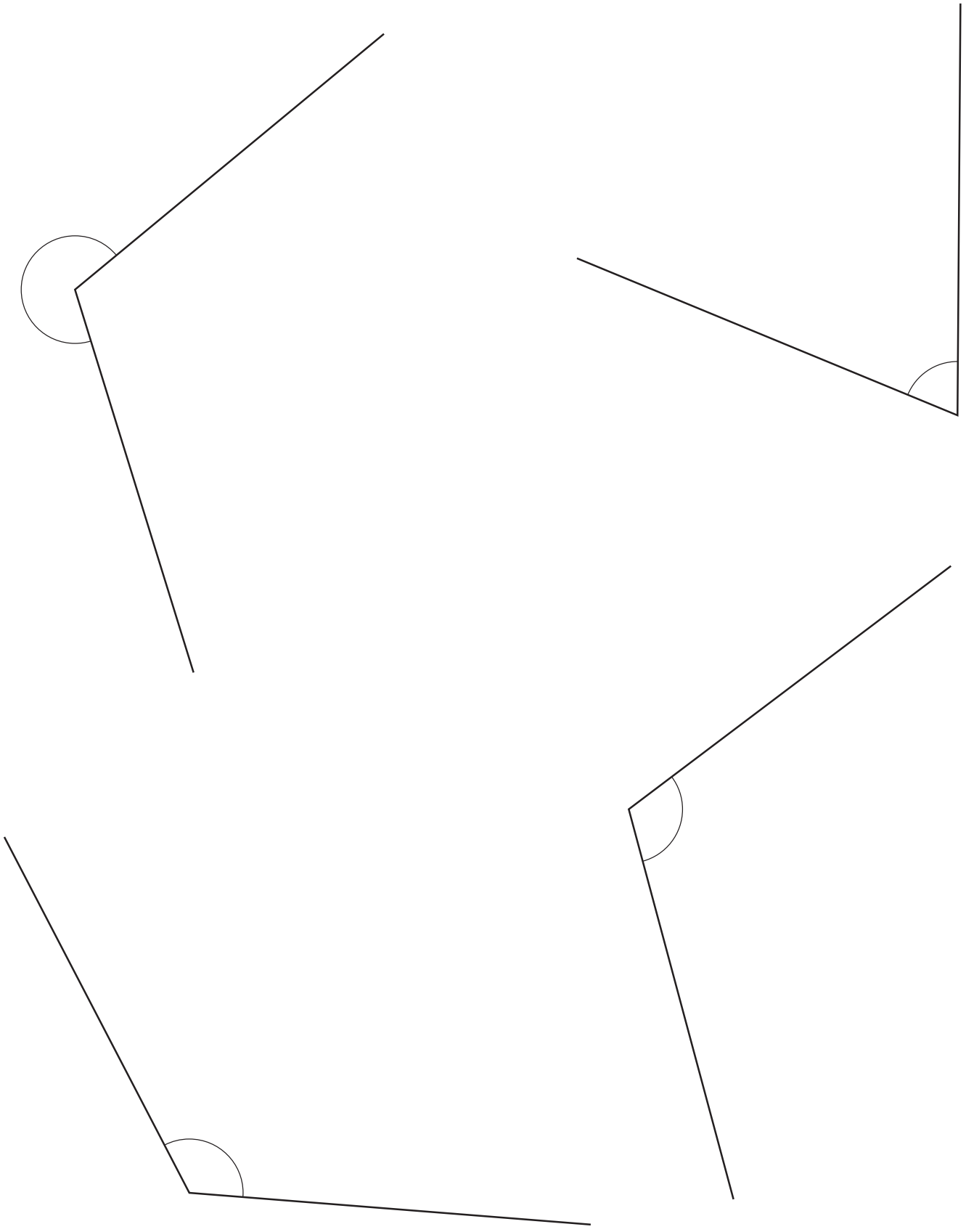


Youssef uses a number of these **cuboids** to make a cube.

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

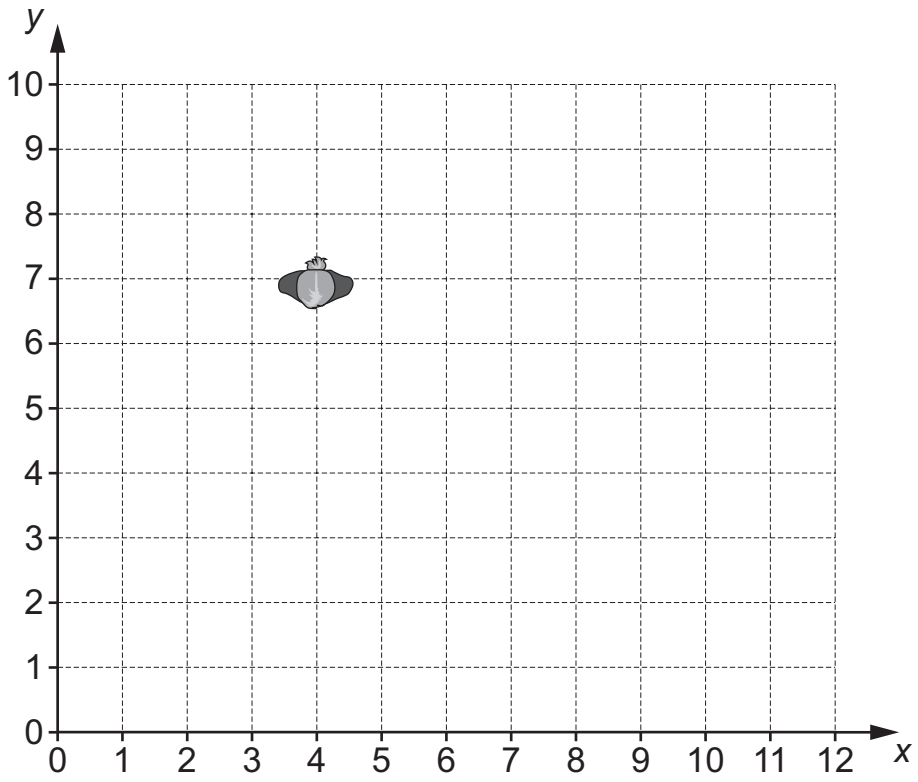
..... [1]

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).

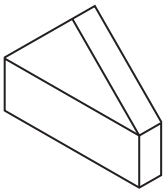
Go to (8, 3).

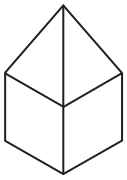
Go to (..... , ...).

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.





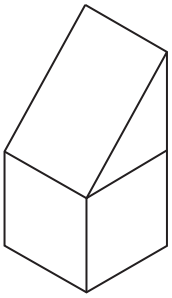
triangular prism

square-based pyramid

triangle-based pyramid

[1]

(b) Lily makes a new model.

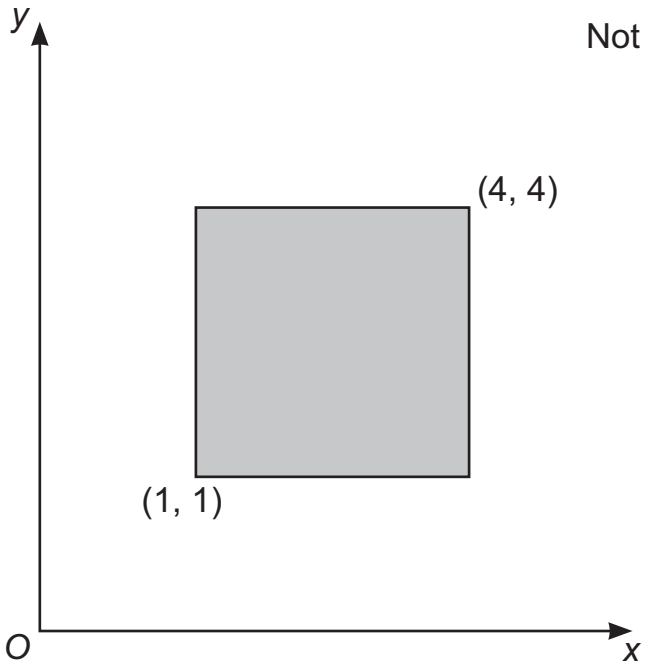


Complete the table to show the properties of the new model.
One has been done for you.

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

[1]

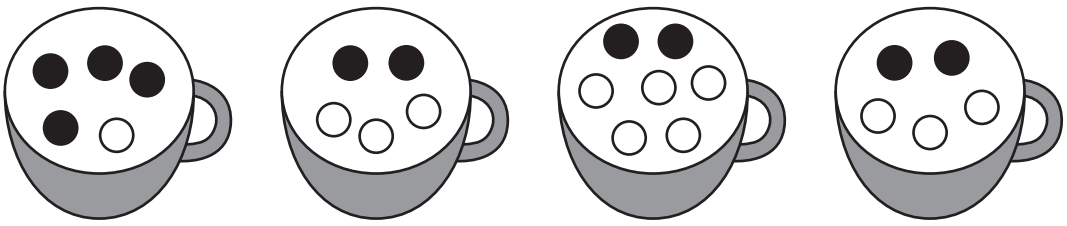
24 Anastasia draws a square on a coordinate grid.
She marks two of the vertices.



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

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

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



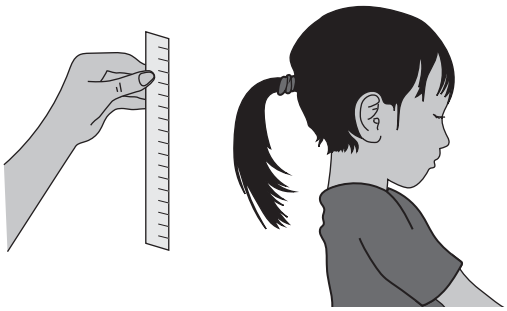
Samira picks **two** of the cups.
She puts all the balls from her two cups into an empty bag.

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

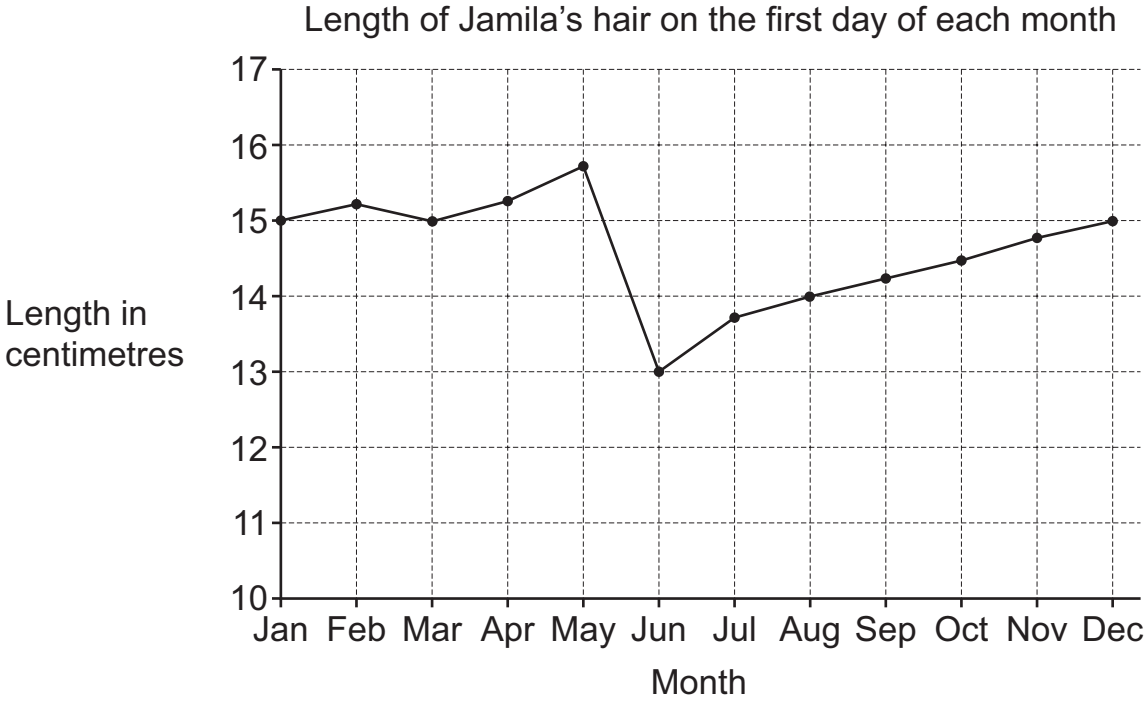
Write the names of the two cups that Samira picks.

..... 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.

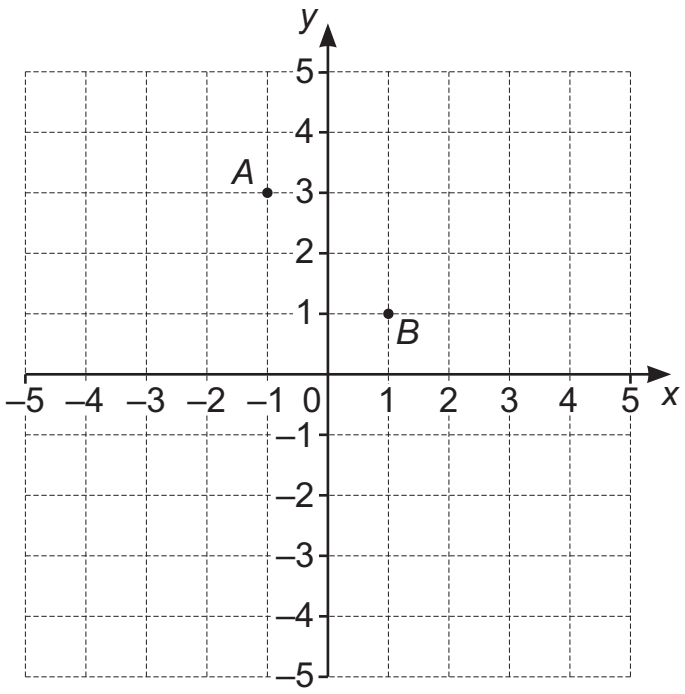
The difference in the length of Jamila's hair between each measurement is the same. ☐

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]

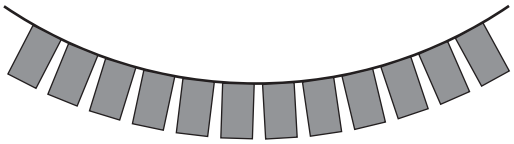
29 Safia writes a sequence by counting in steps of 3
The 8th term in her sequence is 32

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.

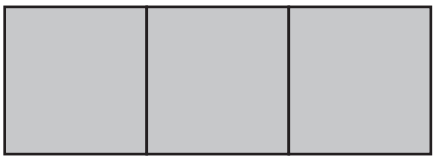
..... metres [1]

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.

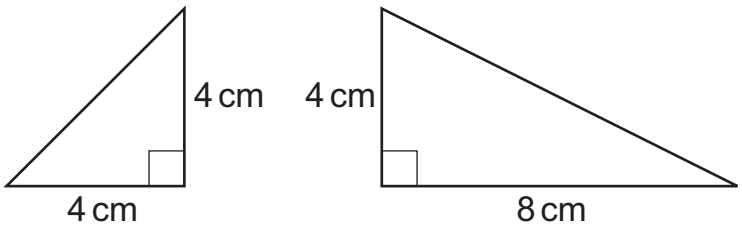
Chen adds three **more** squares to make a new shape.
The perimeter of the new shape is 12 cm.

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

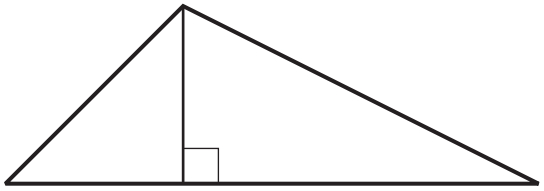
[2]

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]

Cambridge Assessment International Education

Cambridge Primary Checkpoint

MATHEMATICS **0096/01**

Paper 1 **April 2024**

MARK SCHEME

Maximum Mark: 40

Published

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Markers were instructed to award marks. It does not indicate the details of the discussions that took place at a Markers' meeting before marking began, which would have considered the acceptability of alternative answers.

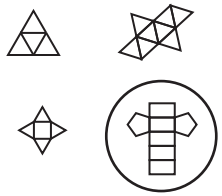
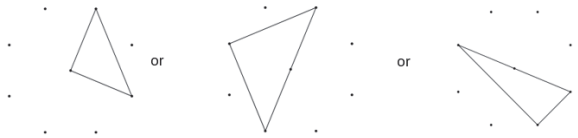
Mark schemes should be read in conjunction with the question paper and the End of Series Report. Cambridge will not enter into discussions about these mark schemes.

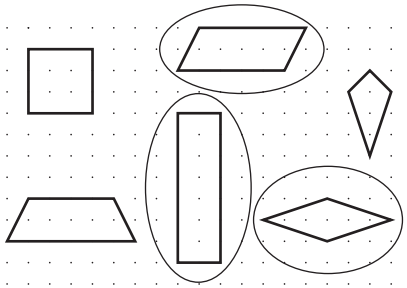
IB24 04_0096_01/3RP

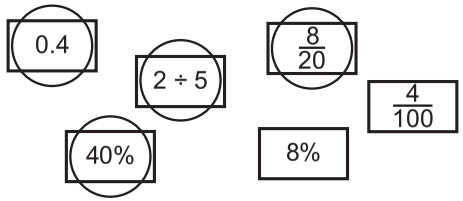
Mark scheme annotations and abbreviations

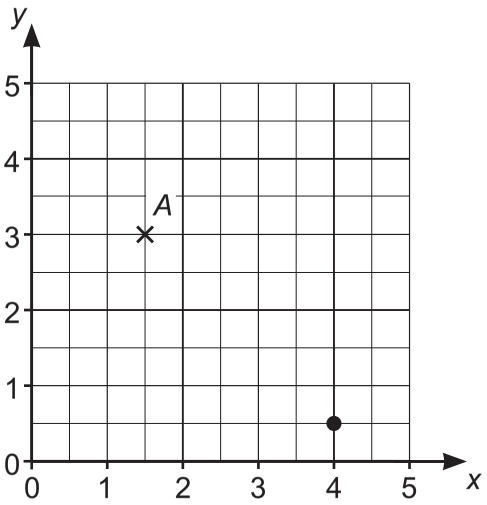
FT	follow through after error
SC	special case mark
cao	correct answer only
dep	dependent
isw	ignore subsequent working
nfww	not from wrong working
oe	or equivalent
soi	seen or implied

Question	Answer	Marks	Part Marks	Guidance
1	(5, 2)	**1**		Accept answer written on the diagram.
2	Explanation that includes reference to the fact that $\frac{3}{4} + \frac{3}{4}$ is greater than 1 (or does not equal 1) e.g. $\frac{3}{4} + \frac{3}{4} = 1\frac{1}{2}$ **or** Mia only has one quarter left (or an equivalent value, e.g. 25%) **or** To have $\frac{3}{4}$ left, they must only have eaten $\frac{1}{4}$	**1**		Do **not** accept vague or incorrect mathematics. Accept reference to the fact that the answer would be an improper fraction if adding $\frac{3}{4} + \frac{3}{4}$ Accept diagrams that show $\frac{1}{4}$ remaining. Do **not** accept answers that restate the question.
3	10.97 (metres)	**1**		
4	38 040	**1**		Accept answer in words. Accept trailing zeros, e.g. 38040.00
5		**1**		Accept any clear indication.
6	23	**1**		

Question	Answer	Marks	Part Marks	Guidance
7	motorcycles lorries cars	**1**		All **three** answers correct in this order for the mark. Do **not** accept numbers in place of words for motorcycles and lorries.
8	$\frac{4}{12}$ $\frac{8}{12}$ $1\frac{1}{4}$ $1\frac{1}{2}$ $1\frac{2}{3}$	**1**		Accept any clear indication.
9		**1**		Accept any clear indication.
10		**1**		Triangles must be complete. Accept any orientation. If more than one triangle is drawn, all must be correct for the mark.

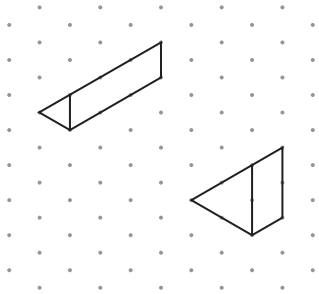
Question	Answer	Marks	Part Marks	Guidance
11	Yes **and** An explanation that references the fact there is an equal proportion of odd and even cards within each set, e.g. • $\frac{1}{2} = \frac{2}{4}$ • 1 out of 2 is the same as 2 out of 4 • 1:1 and 2:2 are equivalent • There is one odd and one even in set A and 2 odd and two even in set B which are both 50% (equally likely) • Set A has the same number of odd and even number cards and so does Set B (implying proportion)	**1**		An explanation must refer to BOTH sets of cards to be creditworthy and refer to the proportion of odd to even. Do **not** accept answers restating the question, e.g. an even number from each set is equally likely.
12	7532	**1**		
13		**1**		All **three** answers correct for the mark. Accept any clear indication.

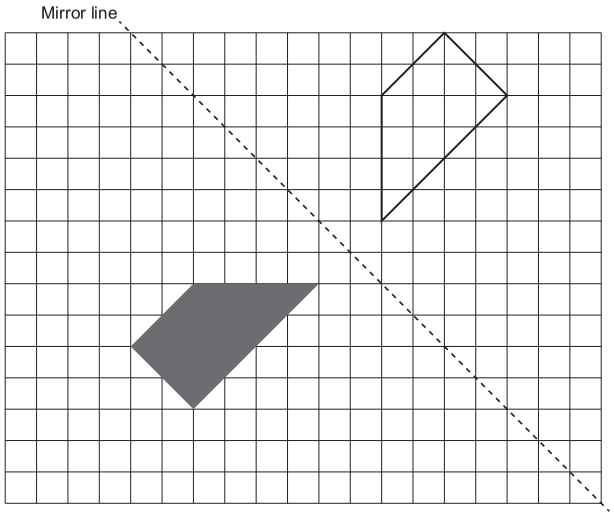
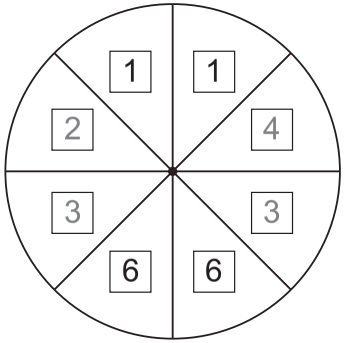
Question	Answer	Marks	Part Marks	Guidance
14		**2**	Award 1 mark for **two** or **three** correct and **no** incorrect answers. **or** Award 1 mark for **three** correct and **one** incorrect if • 0.4, 2 ÷ 5, 40% selected with $\frac{4}{100}$ **or** • 0.4, 2 ÷ 5, $\frac{8}{20}$ selected with 8%	Accept any clear indication. Do **not** accept three correct and one incorrect when two percentages or two fractions have been selected.
15	Circle with a diameter of 6 cm drawn with a pair of compasses and using the given point as the centre.	**1**		Accept diameter of 5.8cm to 6.2cm inclusive. Accept slight inaccuracies.

Question	Answer	Marks	Part Marks	Guidance
16(a)	(1.5, 3)	**1**		Accept equivalent answers for 1.5, e.g. $(1\frac{1}{2}, 3)$, $(\frac{3}{2}, 3)$ Accept answers written on the diagram.
16(b)		**1**		Accept slight inaccuracies provided the intention is clear.
17	80 (%)	**1**		
18	☐ ☐ ☐ ☑ Do ten more trials.	**1**		Accept any clear indication.

Question	Answer	Marks	Part Marks	Guidance
19	–8	**1**		Do **not** accept 8–
20	a = 0 b = 4 a = 1 b = 3 a = 2 b = 2 a = 3 b = 1 a = 4 b = 0	**2**	Award 1 mark for **three** or **four** correct pairs in any order.	Do **not** accept repeated pairs. All values must be integers.
21	$\frac{6}{4}$ (m^2) **or** $1\frac{1}{2}$ (m^2)	**1**		Accept equivalent answers, e.g. 1.5 and $1\ \frac{2}{4}$
22	(314)1	**1**		
23	$\frac{4}{3}$ **or** $\frac{6}{4}$ **or** $\frac{6}{5}$ **or** $\frac{8}{5}$	**1**		
24	25.2 (metres)	**1**		
25	Any one of these calculations that uses numbers from the sequence 9×20 **or** 18×10 **or** 36×5 **or** 45×4	**1**		Accept $9 \times 10 \times 2$, 90×2 Do **not** accept an answer of 180 with no supporting calculation. Do **not** accept 90 + 90 (as 10×9 added to 10×9).

Question	Answer	Marks	Part Marks	Guidance
26	<table><tr><th></th><th>True</th><th>False</th></tr><tr><td>In general, as the age of the children increases, the number of books they borrow decreases.</td><td>✓</td><td></td></tr><tr><td>Fourteen-year-olds borrow more books than thirteen-year-olds.</td><td>✓</td><td></td></tr><tr><td>Two children each borrow 10 books.</td><td></td><td>✓</td></tr></table>	**1**		Accept any clear indication.
27	<table><tr><td>$6^2 + 2^2$</td><td>✓</td></tr><tr><td>$6^2 – 2^2$</td><td></td></tr><tr><td>$6 \times 4 + 2 \times 4$</td><td></td></tr><tr><td>$6 \times 6 + 4$</td><td>✓</td></tr><tr><td>$6 \times 4 + 4$</td><td></td></tr></table>	**1**		**Both** correct for the mark.
28	**7** $\div 5 = 1\frac{2}{\mathbf{5}}$ **or** **6** $\div 5 = 1\frac{2}{\mathbf{10}}$	**1**		**Both** numbers in one calculation correct for the mark. Accept correct use of decimals in the first box, e.g. **7.5** $\div 5 = 1\frac{2}{\mathbf{4}}$

Question	Answer	Marks	Part Marks	Guidance
29	Any triangular-based prism drawn in any orientation, e.g. 	**1**		Accept inaccuracies provided the intention is clear. Use of a ruler is not required. Ignore all nets drawn.
30	110 (cm^2)	**2**	Award 1 mark for sight of 50 **and** 60 (not from wrong working). **or** Award 1 mark for $2 \times (5 \times 5) + 4 \times (3 \times 5)$ with arithmetic errors. **or** Award 1 mark for adding 4 squares and 2 rectangles $4 \times (5 \times 5) + 2 \times (3 \times 5)$	
31	40(°)	**1**		Accept answers written on the diagram.

Question	Answer	Marks	Part Marks	Guidance
32		**1**		Accept slight inaccuracies.
33	(60 minutes) **18** (seconds) **132** (minutes) **105** (seconds)	**2**	Award 1 mark for **one** or **two** correct answers.	
34		**2**	Award 1 mark for a spinner whose numbers satisfy 3 out of the 4 criteria.	Accept numbers in any position.

BLANK PAGE

Cambridge Assessment International Education

Cambridge Primary Checkpoint

MATHEMATICS **0096/02**

Paper 2 **April 2024**

MARK SCHEME

Maximum Mark: 40

Published

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Markers were instructed to award marks. It does not indicate the details of the discussions that took place at a Markers' meeting before marking began, which would have considered the acceptability of alternative answers.

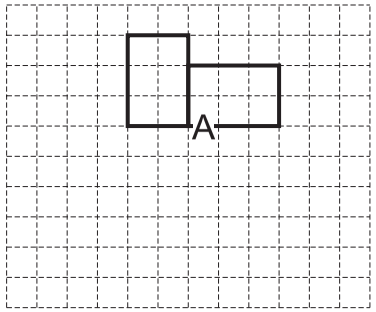
Mark schemes should be read in conjunction with the question paper and the End of Series Report. Cambridge will not enter into discussions about these mark schemes.

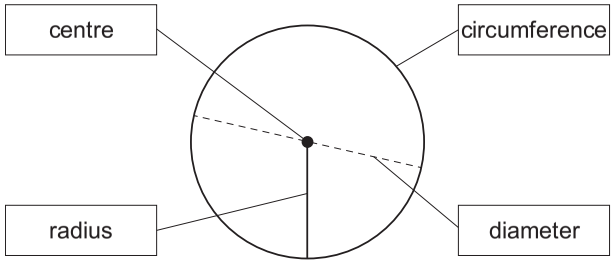
IB24 04_0096_02/3RP

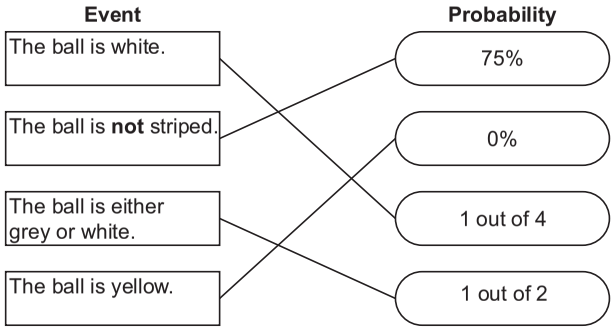
[Turn over

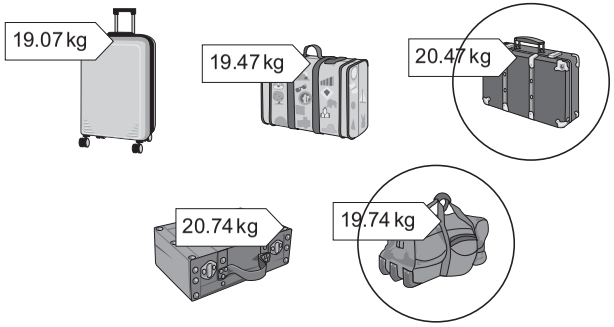
Mark scheme annotations and abbreviations

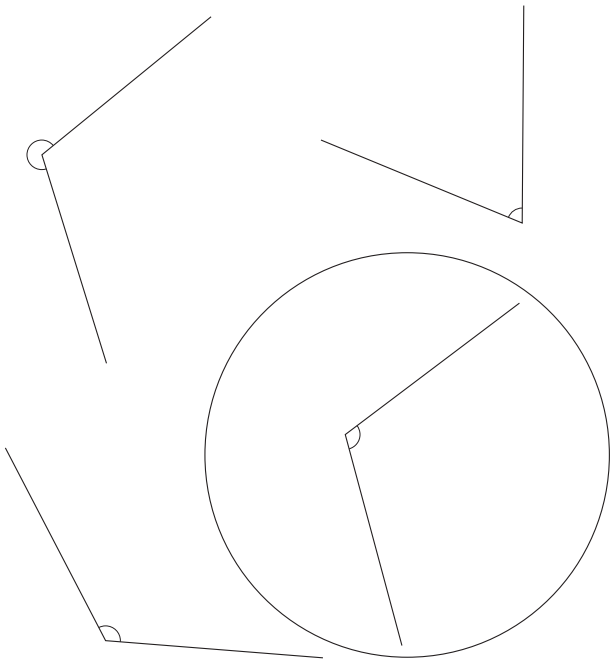
FT	follow through after error
SC	special case mark
cao	correct answer only
dep	dependent
isw	ignore subsequent working
nfww	not from wrong working
oe	or equivalent
soi	seen or implied

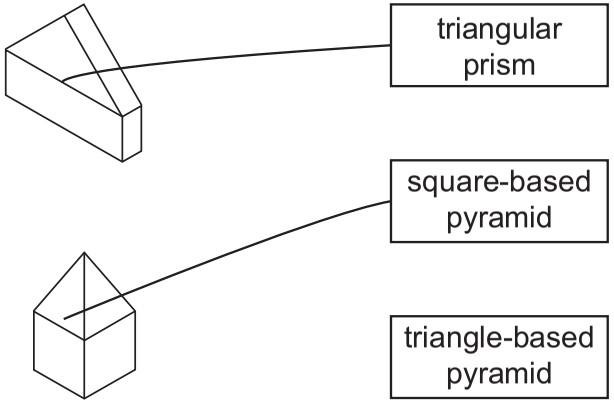
Question	Answer	Marks	Part Marks	Guidance
1	$\frac{2}{15}$	**1**		Accept equivalent fractions. Accept 0.133(333)
2		**1**		Accept slight inaccuracies provided the intention is clear.
3	$45\% < 0.6 < \frac{3}{4}$	**1**		Accept correct equivalents.
4	5	**1**		Do **not** accept 7 – 2
5	capacity volume volume capacity	**1**		Allow the word 'volume' in the first and last spaces but ensure that the learners understand and can use the word 'capacity' correctly.
6	The total number of children in class T (so then we can find half of that).	**1**		Accept answers that refer to knowing the actual number of children in class T in any one of the sectors or the total number of children in a category.

Question	Answer	Marks	Part Marks	Guidance
7		**1**		
8	$46 \times 34 = 46 \times$ **30** + **46** $\times 4$	**1**		Accept any correct alternative answer.
9	☑ I arrive early for school. ☐ I arrive late for school. ☑ I finish my homework. ☐ I do not finish my homework.	**1**		Accept any clear indication.
10	Any **one** from 17, 37, 47, 67, 97 **and** Any **one** from 27, 57, 77, 87	**1**		**Both** answers correct for the mark.
11	C D A	**1**		All **three** correct for the mark. In this order only.

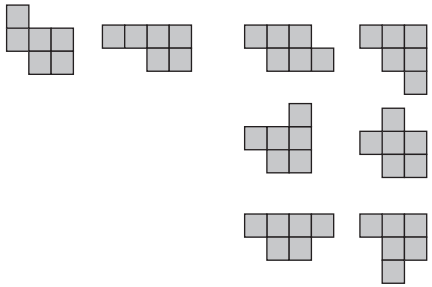
Question	Answer	Marks	Part Marks	Guidance
12(a)	Colour of eyes	**1**		Accept any clear indication.
12(b)	2	**1**		
13	42 ones and 573 thousandths ✓ 425 tenths and 73 hundredths 4 tens, 2 ones, 57 hundredths and 3 thousandths ✓ 42 ones, 57 tenths and 3 thousandths 4 tens, 2 ones, 5 tenths, 7 hundredths and 3 thousandths ✓	**2**	Award 1 mark for **two** correct and no incorrect answers. **or** Award 1 mark for **three** correct and **one** incorrect.	Accept any clear indication.
14		**1**		Accept any clear indication.
15	126 000 (kg)	**1**		

Question	Answer	Marks	Part Marks	Guidance
16	0.48 12% 0.12 $\frac{12}{13}$ 48% $\frac{12}{25}$	**2**	Award 1 mark for **two** correct and **no** incorrect answers. **Or** Award 1 mark for: • 0.48, 48% and the incorrect fraction ($\frac{12}{13}$) • 0.48, $\frac{12}{25}$ and the incorrect percentage (12%) • $\frac{12}{25}$, 48% and the incorrect decimal (0.12)	Award 2 marks for **three** correct and **no** incorrect answers.
17	32	**1**		
18	Any two multiples of 60, e.g. 60 and 120	**1**		
19		**1**		Accept any clear indication.

Question	Answer	Marks	Part Marks	Guidance
20	4	**1**		Accept 32 108, 256 etc. Accept $\frac{1}{16}$
21		**1**		
22	(8, 7)	**1**		

Question	Answer	Marks	Part Marks	Guidance
23(a)		**1**		
23(b)	6 8	**1**		In this order only.
24	Any **one** from (2, 2) (2, 3) (3, 2) (3, 3)	**1**		**Both** x and y coordinate correct for the mark. Any coordinate where $(1 < x < 4, 1 < y < 4)$
25	A **and** C	**1**		In any order.

Question	Answer	Marks	Part Marks	Guidance
26	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 5 millimetres longer at the start of November than at the start of October. ✓	1		Accept any clear indication.
27	(1, 2) **(3, –1)** (–2, 3) (5, 3) **(0, 2)**	1		**Both** answers correct for the mark. Accept any clear indication.
28	($) 30	2	Award 1 mark for sight of $150 **and** $180 (not from wrong working). **or** Award 1 mark for a complete method with arithmetic errors, e.g. $(\frac{240}{8} \times 5) - (\frac{120}{2} \times 3)$	

Question	Answer	Marks	Part Marks	Guidance
29	18	**2**	Award 1 mark for **one** correct sequence **or** $32 - (7 \times 3)$ **or** $64 - (7 \times 5)$ **or** $64 - 32 - (7 \times 2)$	
30	1.25 (metres) **or** $1\frac{1}{4}$ (metres) **or** $\frac{5}{4}$ (metres)	**1**		Accept equivalent answers.
31	(–20) –10 0 (10)	**1**		**Both** correct for the mark. Do **not** accept 10 -
32	Any **two** from 	**2**	Award 1 mark for **one** correct shape.	Accept any orientation. Allow sketches which use any scale for the squares.
33	24 (square centimetres)	**1**		

Cambridge Assessment International Education

Cambridge Primary Checkpoint

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER			

1505118908

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]

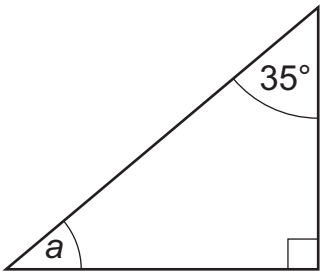
3 Complete the calculations.

$0.07 \times 1000 =$ ☐

$216.3 \div 100 =$ ☐

[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]

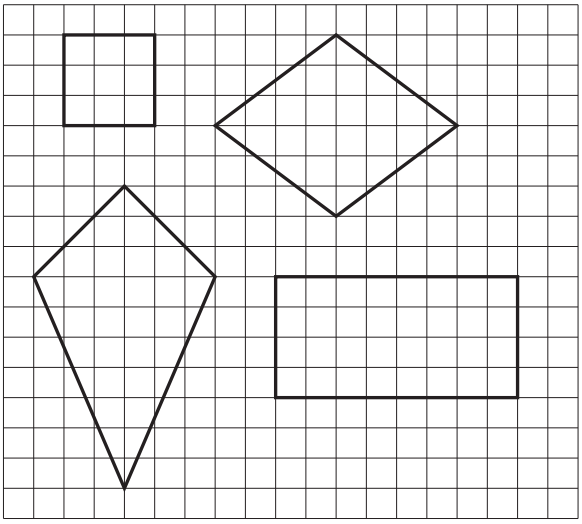
7 Here are four digits.

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]

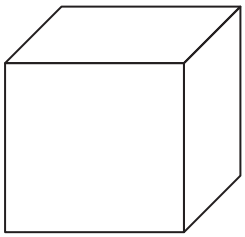
10 The table shows spelling test results for Oliver, Mike, Pierre and Carlos.

	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.

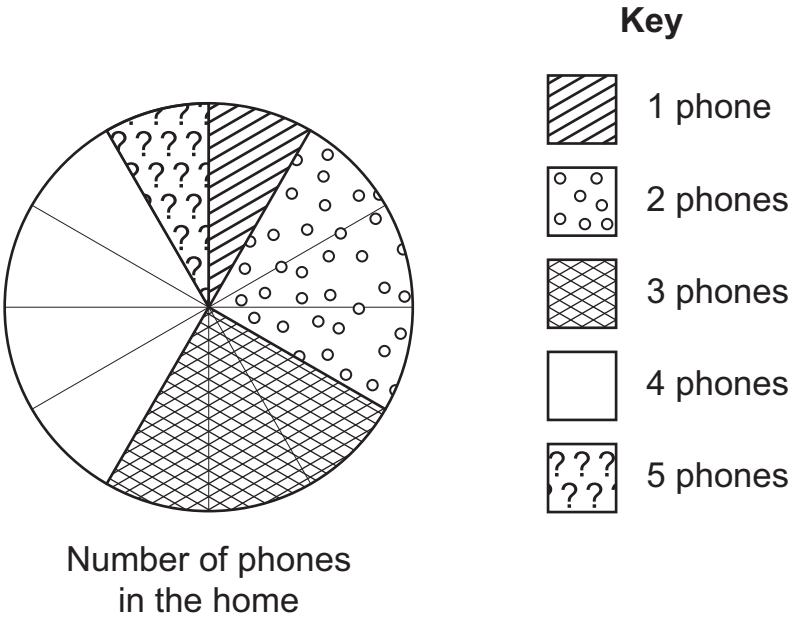
	Possible	**Impossible**
The volume of water in a jug is 500 ml and the capacity of the jug is 1 litre.		
The volume of water in a jug is 1 litre and the capacity of the jug is 600 ml.		
The volume of water in a jug is 600 ml and the capacity of the jug is 600 ml.		

[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]

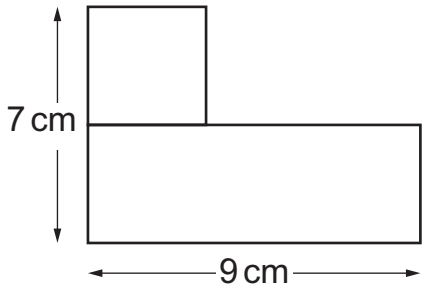
17 Ahmed can balance on one leg for 1.5 minutes.

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.

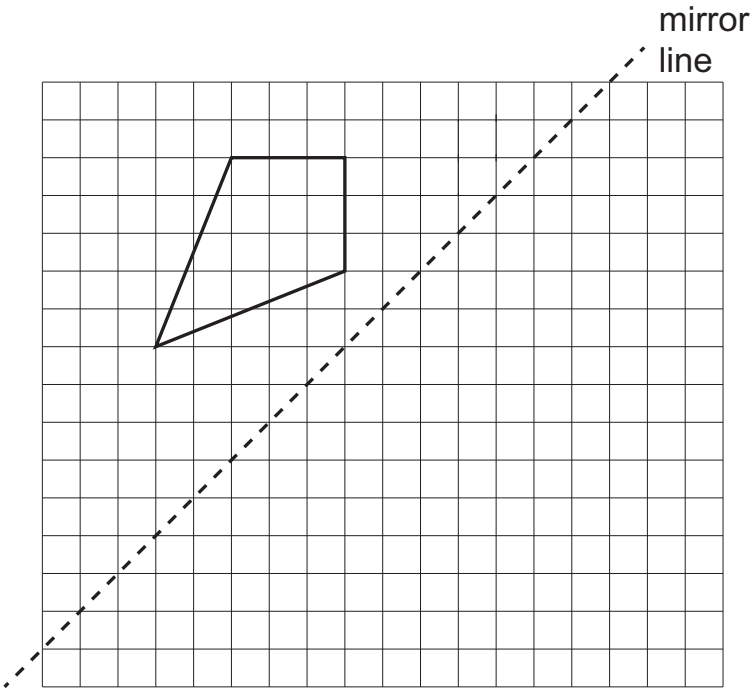
The trays are packed in boxes.
There are 5 trays in each box.

A shopkeeper buys 14 boxes.

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

..... oranges [2]

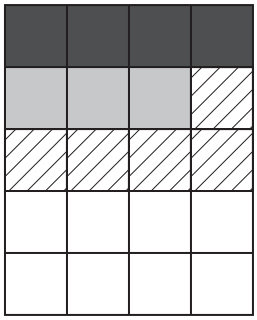
20 Here is a shape drawn on a grid of squares.



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]

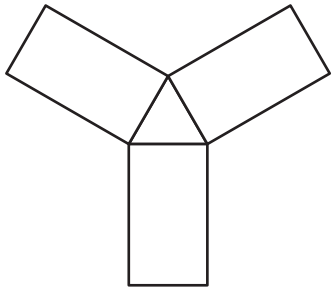
23 Draw a line to match each calculation to the correct length.

$\frac{1}{10}$ of 600 metres	less than 50 metres
$\frac{3}{10}$ of 100 metres	
$\frac{5}{10}$ of 80 metres	greater than 50 metres
$\frac{7}{10}$ of 100 metres	

[1]

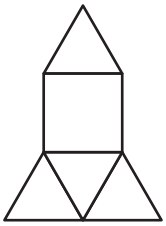
24 Angelique wants to sketch the nets of some 3D shapes.

(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.

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

[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.

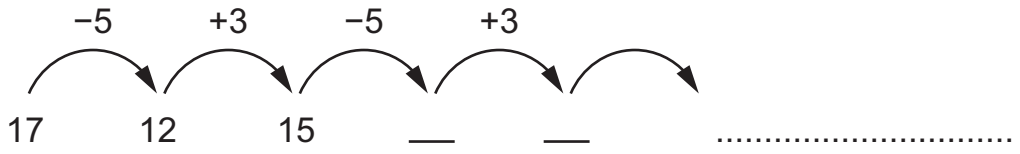
25% chance Mia picks a white ball

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 (✓) 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]

BLANK PAGE

Cambridge Assessment International Education

Cambridge Primary Checkpoint

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER			

8034820383

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.

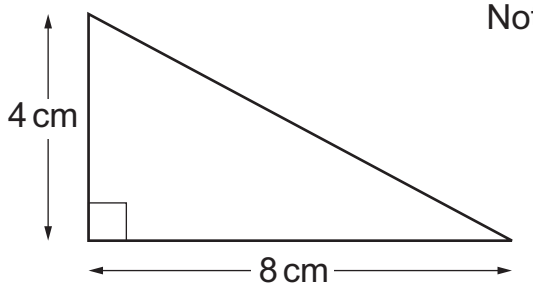
Mike rolls a 3	or	Mike rolls an even number

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.



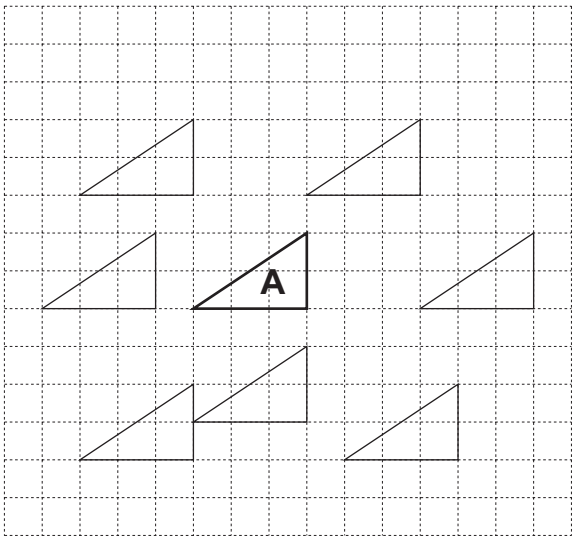
Not drawn to scale

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]

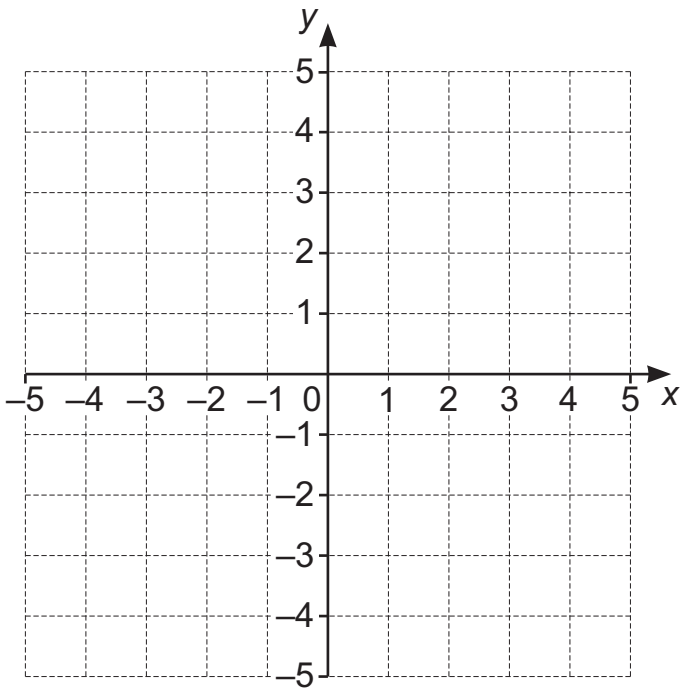
(b) Calculate the mean height.

..... centimetres [1]

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

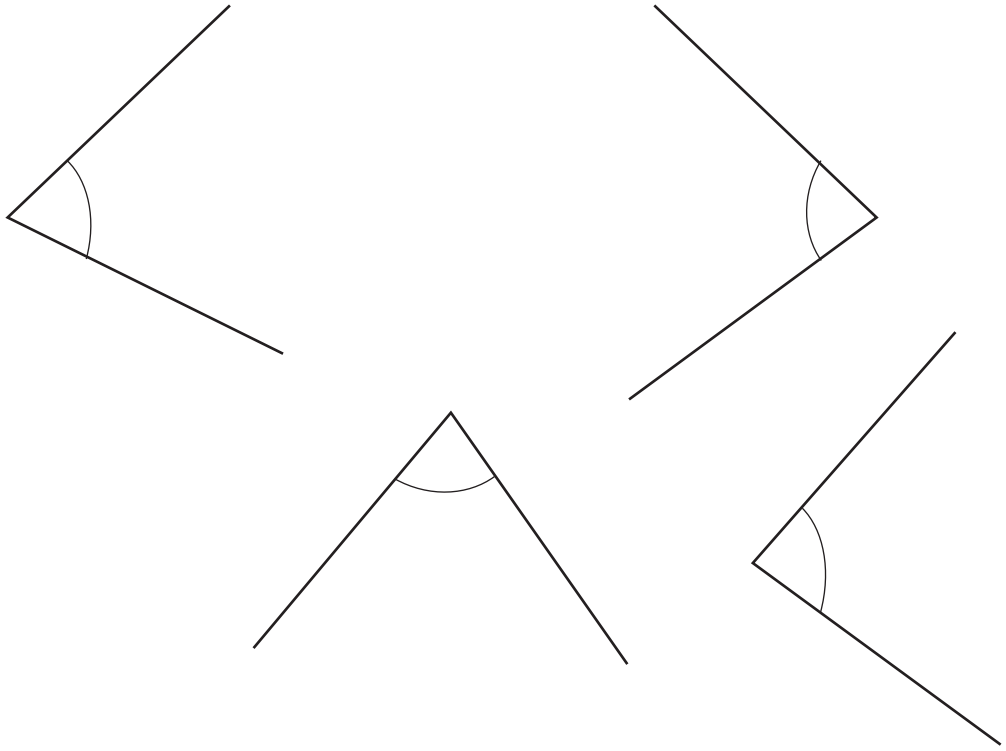
..... and ..... [1]

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 × 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.

..... °C [1]

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

Write the temperature in Helsinki.

..... °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]

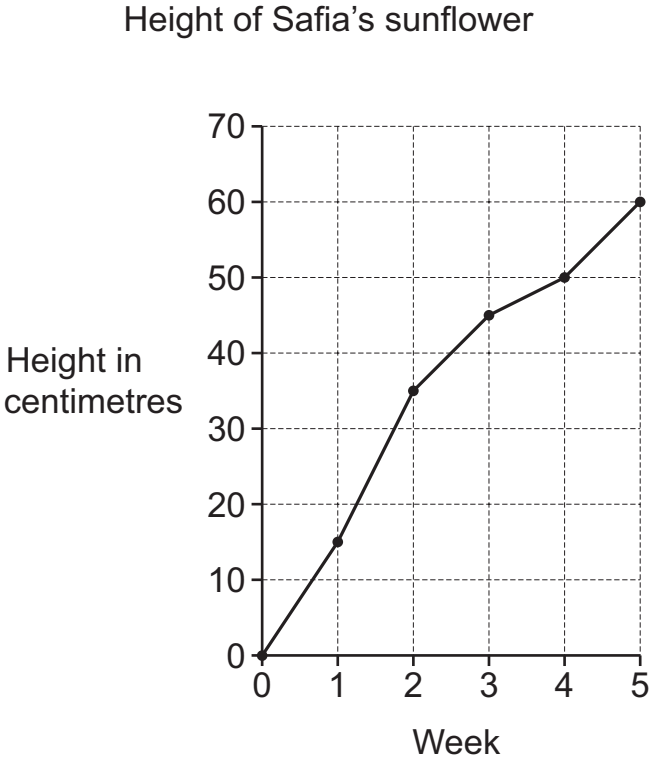
15 Safia and Hassan each grow a sunflower.

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.



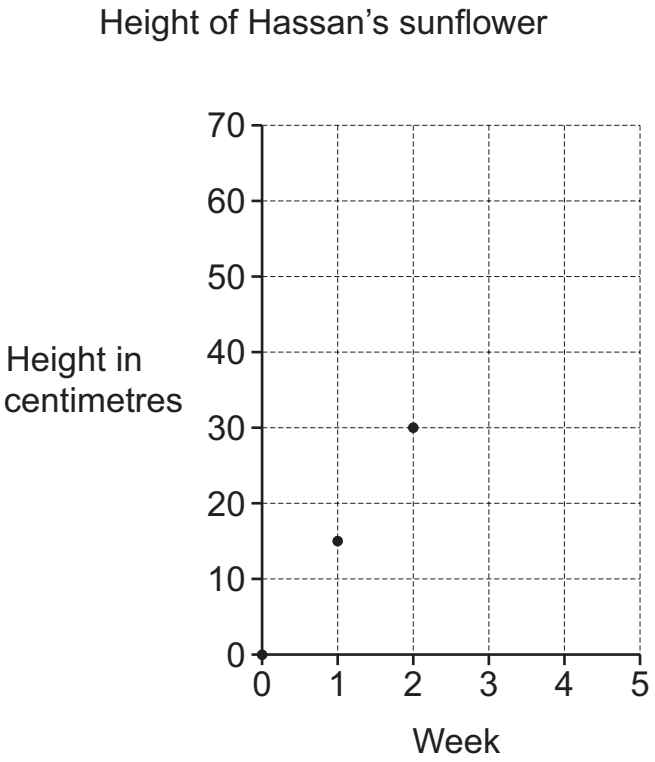
One of her points is incorrect.

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.



[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]

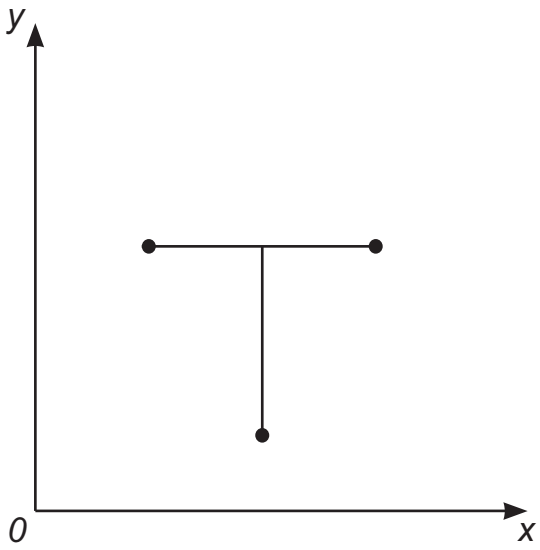
20 Tick (✓) **all** the expressions that are equivalent to 13.024

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.

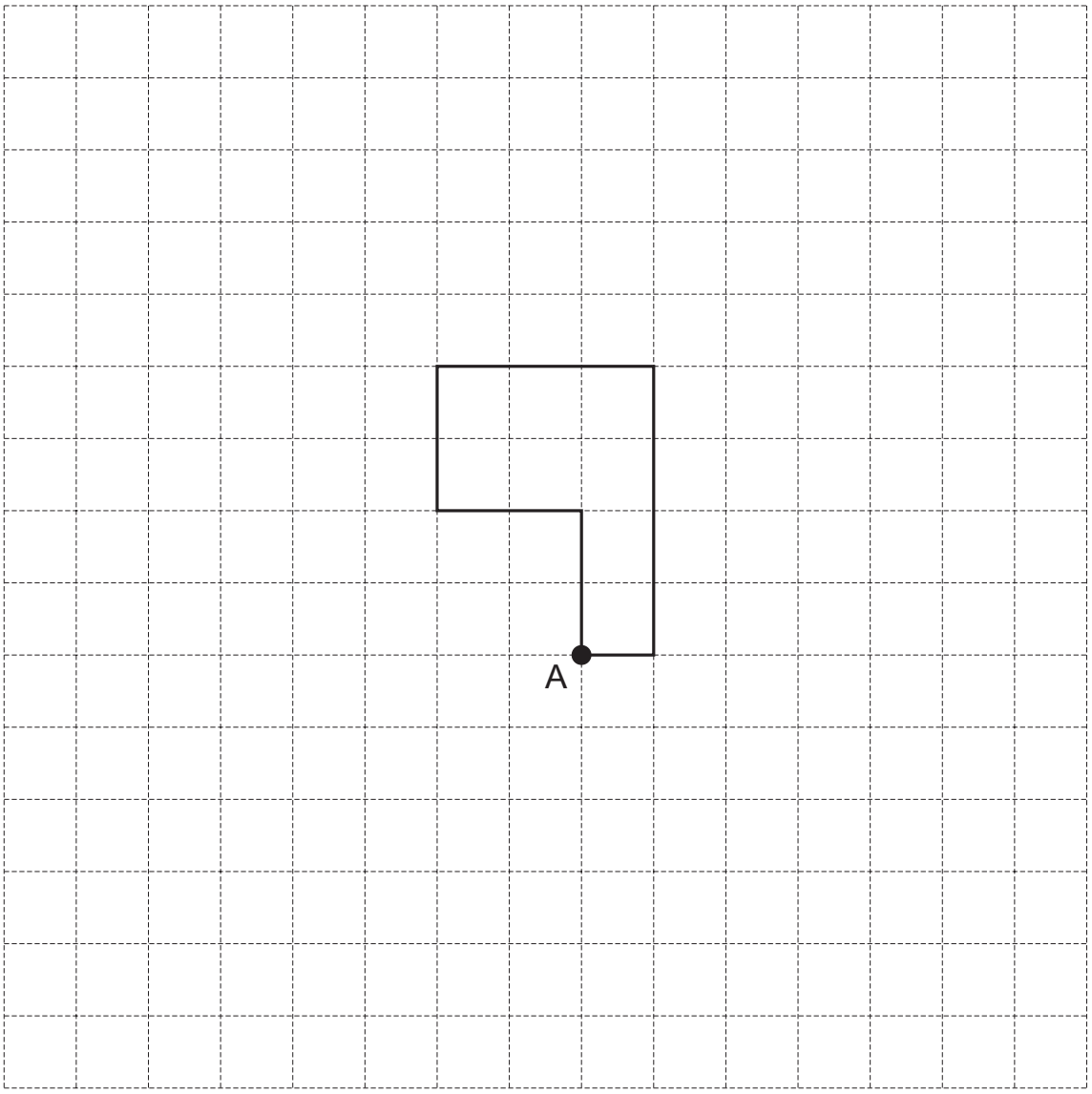
(3,7)	(6,2)	(9,7)	
(3,7)	(6,7)	(9,7)	
(3,7)	(6,9)	(9,7)	
(7,3)	(2,6)	(7,9)	
(7,3)	(7,6)	(7,9)	
(7,3)	(9,6)	(7,9)	

[1]

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

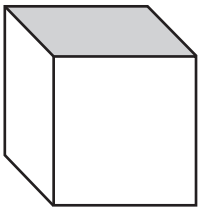
[1]

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



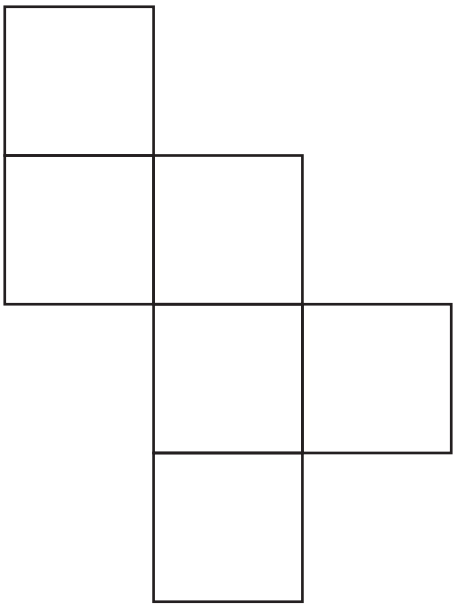
Rotate the shape 90° clockwise about the point A. [1]

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]

BLANK PAGE

BLANK PAGE

BLANK PAGE

Cambridge Assessment International Education

Cambridge Primary Checkpoint

MATHEMATICS **0096/01**

Paper 1 **October 2024**

MARK SCHEME

Maximum Mark: 40

Published

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Markers were instructed to award marks. It does not indicate the details of the discussions that took place at a Markers' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the End of Series Report. Cambridge will not enter into discussions about these mark schemes.

IB24 10_0096_01/5RP

Mark scheme annotations and abbreviations

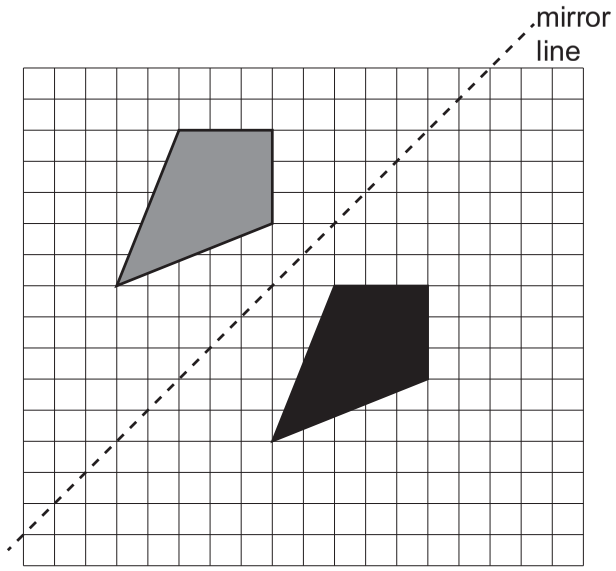
FT	follow through after error
SC	special case mark
cao	correct answer only
isw	ignore subsequent working
nfww	not from wrong working
oe	or equivalent
soi	seen or implied

Question	Answer	Marks	Part Marks	Guidance
1	25	**1**		
2	7.2	**1**		Do **not** accept equivalents, e.g. $7\frac{2}{10}$
3	70 2.163	**1**		**Both** answers correct for the mark.
4	55 (°)	**1**		
5	2.01	**1**		
6	23.22 (metres)	**1**		Accept equivalent answers with correct units, e.g. 2322 cm
7	1216 **or** 2116 **or** 1612 **or** 6112	**1**		If more than one answer is given, they must all be correct.
8	4 2 1 2	**2**	Award 1 mark for **two** or **three** correct.	All **four** answers correct for two marks. Accept 0 for kite.

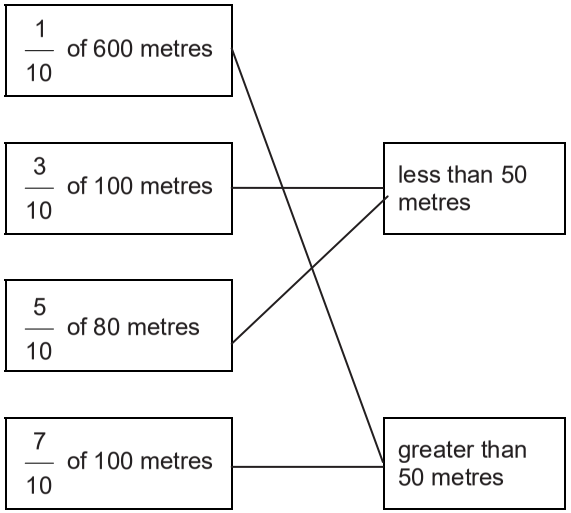
Question	Answer	Marks	Part Marks	Guidance
9	($) 10	**1**		
10	<table><tr><th></th><th>Spelling test results</th></tr><tr><td>(Oliver)</td><td>3 7 5</td></tr><tr><td>(Mike)</td><td>5 5 6</td></tr><tr><td>Pierre</td><td>1 0 5 2 1</td></tr><tr><td>(Carlos)</td><td>5 5 9 5 10</td></tr></table>	**1**		All names correct and no extra. Accept any clear indication.
11	60 (cm^2)	**1**		
12	(2) (3) (4) 5 (6) (8) (9) 10	**2**	Award 1 mark for **four** or **five** correct answers and no incorrect answers.	
13	<table><tr><th>Pairs of events</th><th>Mutually exclusive</th><th>Not mutually exclusive</th></tr><tr><td>A and B</td><td>✓</td><td></td></tr><tr><td>B and C</td><td></td><td>✓</td></tr><tr><td>C and D</td><td></td><td>✓</td></tr><tr><td>D and E</td><td>✓</td><td></td></tr></table>	**2**	Award 1 mark for **three** correct answers.	Accept any clear indication.

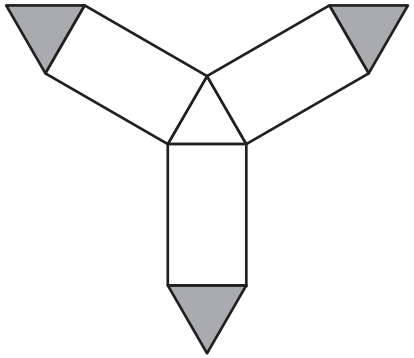
<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th><th>Part Marks</th><th>Guidance</th></tr>
<tr><td>14</td><td>3.57 (metres)</td><td>1</td><td></td><td>Accept equivalent answers with correct units, e.g. 357 cm</td></tr>
<tr><td>15</td><td><table><tr><th></th><th>Possible</th><th>Impossible</th></tr><tr><td>The volume of water in a jug is 500 ml and the capacity of the jug is 1 litre.</td><td>✓</td><td></td></tr><tr><td>The volume of water in a jug is 1 litre and the capacity of the jug is 600 ml.</td><td></td><td>✓</td></tr><tr><td>The volume of water in a jug is 600 ml and the capacity of the jug is 600 ml.</td><td>✓</td><td></td></tr></table></td><td>1</td><td></td><td>All three answers correct for the mark.

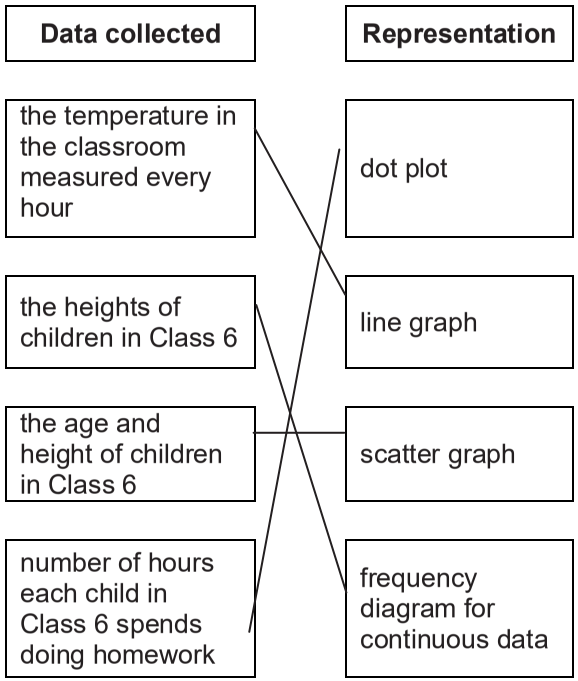
Accept any clear indication, e.g.<table><tr><th>Possible</th><th>Impossible</th></tr><tr><td>✓</td><td></td></tr><tr><td></td><td>X</td></tr><tr><td>✓</td><td></td></tr></table></td></tr>
<tr><td>16</td><td>No
and
An explanation that states:
there are 5 sections for more than 3 phones, and this is less than half.
there are 7 sections for 3 and less than 3 phones, and this is more than half.
those with more than 3 phones only have 5 sections. (Half of the pie chart is 6 sections).
the number with 3 or less phones is not the same as more than 3 phones.</td><td>1</td><td></td><td>Do not accept reference to 6 sections being half without reference to the number of more than 3 phones (5) or 3 phones and less (7).</td></tr>
<tr><td>17</td><td>36 (seconds)</td><td>1</td><td></td><td>Do not accept 0.6 minutes</td></tr>
</table>

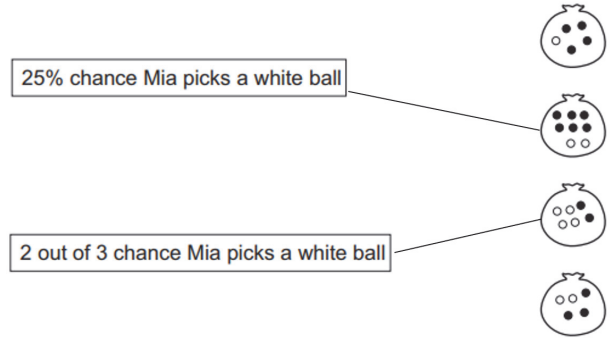
Question	Answer	Marks	Part Marks	Guidance
18	32 (centimetres)	**1**		
19	16800 (oranges)	**2**	Award 1 mark for: sight of 1200 or 70 or 3360 as evidence of a partial correct method with some correct multiplication. **or** a complete correct method containing arithmetic errors.	Accept 5 x 240 x 14 with no or incorrect evaluation for 1 mark.
20		**1**		Accept slight inaccuracies of up to 1mm from the correct vertex.

Question	Answer	Marks	Part Marks	Guidance
21	<table><tr><th>Colour of T-shirts</th><th>Frequency</th></tr><tr><td>red</td><td>4</td></tr><tr><td>yellow</td><td>6</td></tr><tr><td>green</td><td>5</td></tr><tr><td>blue</td><td>8</td></tr></table> <table><tr><th>Colour of T-shirts</th><th>Frequency</th></tr><tr><td>red</td><td>8</td></tr><tr><td>yellow</td><td>6</td></tr><tr><td>green</td><td>5</td></tr><tr><td>blue</td><td>16</td></tr></table> <table><tr><th>Colour of T-shirts</th><th>Frequency</th></tr><tr><td>red</td><td>4</td></tr><tr><td>yellow</td><td>3</td></tr><tr><td>green</td><td>5</td></tr><tr><td>blue</td><td>10</td></tr></table> <table><tr><th>Colour of T-shirts</th><th>Frequency</th></tr><tr><td>red</td><td>8</td></tr><tr><td>yellow</td><td>6</td></tr><tr><td>green</td><td>10</td></tr><tr><td>blue</td><td>16</td></tr></table>	**1**		Accept any clear indication.
22	28 (cakes)	**1**		

Question	Answer	Marks	Part Marks	Guidance
23		**1**		All lines correct for the mark.

Question	Answer	Marks	Part Marks	Guidance
24(a)	 Any **one** of the shaded triangles sketched in the correct place.	**1**		Do **not** accept nets with more than one triangle drawn. Mark the intention to draw a correctly orientated triangle.
24(b)	(square-based) pyramid	**1**		Accept recognisable misspellings Accept pentahedron. Do **not** accept polyhedron.

Question	Answer	Marks	Part Marks	Guidance
25		**2**	Award 1 mark for **two** or **three** correct lines.	All **four** lines correct for 2 marks.
26	8.7	**1**		Accept 8.70
27	$\frac{2}{15}$ isw	**1**		Accept equivalent fractions, e.g. $\frac{6}{45}$
28	7.5	**1**		

Question	Answer	Marks	Part Marks	Guidance
29	always never sometimes	**1**		Accept recognisable misspellings. All **three** answers correct for the mark. Words in this order only.
30	$\frac{\boxed{2}}{3} + \frac{\boxed{2}}{5} = \frac{16}{15}$	**1**		Accept negative and decimal alternatives.
31	84.7	**1**		
32		**1**		Both lines correct for the award of the mark. Do **not** allow if additional lines are drawn.

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th><th>Part Marks</th><th>Guidance</th></tr>
<tr><td>33</td><td>Yes
and
a correct completion of the sequence leading to –2: …5, 0, 3, [–2]
or
using the number before to reach -2
(3 – 5 = -2) only if evidence of the 3 being a term from the sequence
or
using the number after to go back to -2 (1 – 3 = -2) only if evidence of the 1 being a term from the sequence
or
an explanation that –2 follows in the pattern 12, 10, 8, 6,…(every even number)</td><td>1</td><td></td><td>Do not accept ‘Yes’ and a statement saying -2 will be in the sequence without mathematical evidence.</td></tr>
<tr><td>34</td><td><table><tr><th>Points</th><th>Above his line</th><th>Below his line</th><th>On his line</th></tr><tr><td>(–3, 3)</td><td>✓</td><td></td><td></td></tr><tr><td>(2, 2)</td><td></td><td></td><td>✓</td></tr><tr><td>(3, –2)</td><td></td><td>✓</td><td></td></tr></table></td><td>1</td><td></td><td>All three correct for the mark.</td></tr>
</table>

Cambridge Assessment International Education

Cambridge Primary Checkpoint

MATHEMATICS **0096/02**

Paper 2 **October 2024**

MARK SCHEME

Maximum Mark: 40

Published

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Markers were instructed to award marks. It does not indicate the details of the discussions that took place at a Markers' meeting before marking began, which would have considered the acceptability of alternative answers.

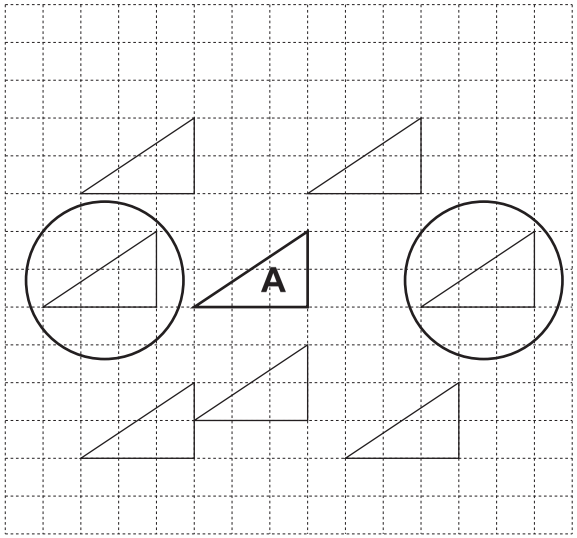
Mark schemes should be read in conjunction with the question paper and the End of Series Report. Cambridge will not enter into discussions about these mark schemes.

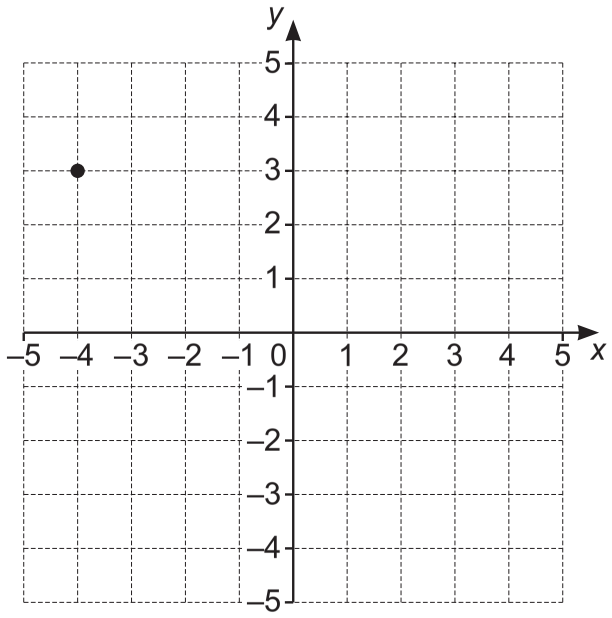
10_0096_02/7RP

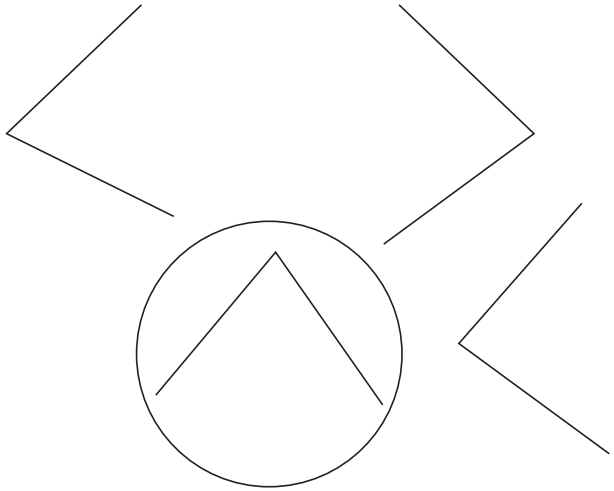
Mark scheme annotations and abbreviations

FT	follow through after error
SC	special case mark
cao	correct answer only
isw	ignore subsequent working
nfww	not from wrong working
oe	or equivalent
soi	seen or implied

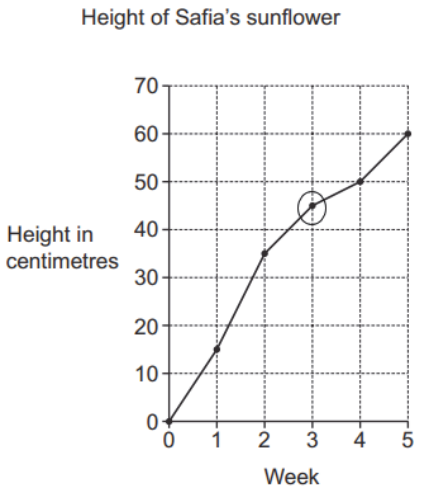
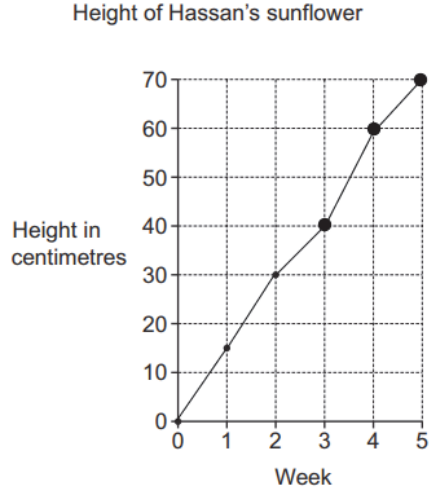
Question	Answer	Marks	Part Marks	Guidance
1	15.2	**1**		
2	$\frac{3}{4}$ → $3 \div 4$ $1\frac{1}{4}$ → $5 \div 4$	**1**		**Both** lines correct for the mark. Accept any clear indication.
3	Mike rolls a 3 or **Mike rolls an even number** **Mike rolls a number less than 5** or Mike rolls a number greater than 5	**1**		**Both** answers required for the mark. Accept any clear indication.
4	16 (cm^2)	**1**		

Question	Answer	Marks	Part Marks	Guidance
5		**1**		**Both** triangles correct for the mark. Accept any clear indication.
6	32.051	**1**		
7(a)	10 (centimetres)	**1**		Do **not** accept 134–144 or 144–134 unevaluated.
7(b)	140 (centimetres)	**1**		
8	Any 2 fractions with total of $\frac{6}{7}$ e.g. $\frac{1}{7}$ and $\frac{5}{7}$	**1**		Accept equivalent fractions including mixed denominators. Do **not** accept $\frac{6}{7}$ and 0

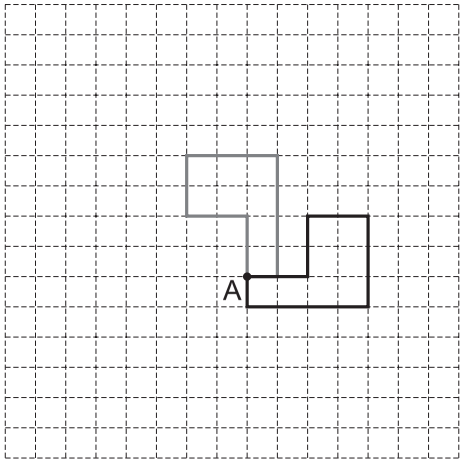
Question	Answer	Marks	Part Marks	Guidance
9	Point correctly plotted  	**1**		Accept any clear indication. Accept slight inaccuracies.

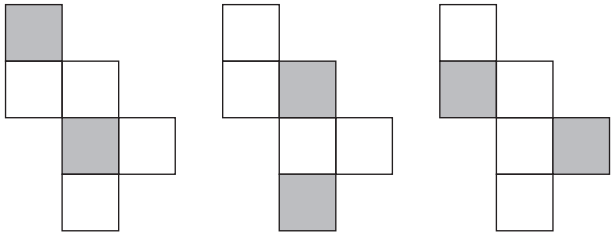
Question	Answer	Marks	Part Marks	Guidance
10(a)		**1**		Accept any clear indication.
10(b)	An angle measuring 118° to 122° inclusive.	**1**		The correct angle must be unambiguous.
11	$\frac{3}{5}$ > 30% 60% > 0.07 0.15 < $\frac{1}{5}$	**2**	Award 1 mark for **two** correct.	

Question	Answer	Marks	Part Marks	Guidance
12	An explanation recognising that the multiplication should be done first. e.g. you need to do 2 × 4 and then add 6	**1**		Do **not** accept 14 without any explanation.
13(a)	10 (°C)	**1**		Do **not** accept 10–
13(b)	–9 (°C)	**1**		Do **not** accept 9–
14	**4.75** 4 3.25 2.5 **1.75**	**1**		**Both** answers correct for the mark.

Question	Answer	Marks	Part Marks	Guidance
15(a)		**1**		Accept any clear indication, e.g. • the correct point drawn in at 40cm for Week 3 or • the 3 circled for Week 3
15(b)	 3 extra points correctly plotted and **all** the points joined from Week 0 to Week 5	**1**		Accept slight inaccuracies.

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th><th>Part Marks</th><th>Guidance</th></tr>
<tr><td>16</td><td>'No'
and
an explanation showing one of:
• 4% is 4/100 (not 4/10)
• 4/10 is 40% (not 4%)
• 4% is 0.04 and 4/10 is 0.4(0)</td><td>1</td><td></td><td></td></tr>
<tr><td>17</td><td><table><tr><th></th><th>True</th><th>False</th></tr><tr><td>The circumference is longer than the radius.</td><td>✓</td><td></td></tr><tr><td>The diameter is longer than the circumference.</td><td></td><td>✓</td></tr><tr><td>The radius is twice as long as the diameter.</td><td></td><td>✓</td></tr><tr><td>The diameter is longer than the radius.</td><td>✓</td><td></td></tr><tr><td>The circumference is a straight line.</td><td></td><td>✓</td></tr></table></td><td>2</td><td>Award 1 mark for three or four correct rows.</td><td>Accept any clear indication, e.g.
<table><tr><th>True</th><th>False</th></tr><tr><td>✓</td><td></td></tr><tr><td></td><td>X</td></tr><tr><td></td><td>X</td></tr><tr><td>✓</td><td></td></tr><tr><td></td><td>X</td></tr></table></td></tr>
<tr><td>18</td><td>24</td><td>1</td><td></td><td></td></tr>
<tr><td>19(a)</td><td>12</td><td>1</td><td></td><td></td></tr>
<tr><td>19(b)</td><td>144</td><td>1</td><td></td><td></td></tr>
</table>

Question	Answer	Marks	Part Marks	Guidance
20	13 ones + 24 thousandths ✓ 13 ones + 2 tenths + 4 thousandths 10 + 3 + 0.02 + 0.004 ✓	1		Accept any clear indication.
21	(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		Accept any clear indication.
22	A circle of radius 6 cm drawn with P as the centre.	1		Only accept circles drawn with a pair of compasses. Accept slight inaccuracies.
23		1		Accept slight inaccuracies.

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th><th>Part Marks</th><th>Guidance</th></tr>
<tr><td>24</td><td>Any one of
  </td><td>1</td><td></td><td>Accept any clear indication.</td></tr>
<tr><td>25</td><td>
<table>
<tr><th>Description of Oliver's quadrilateral</th><th>Name of Oliver's quadrilateral</th></tr>
<tr><td>exactly 4 right angles
exactly 2 lines of symmetry</td><td>rectangle</td></tr>
<tr><td>exactly 1 right angle
no parallel sides</td><td>kite</td></tr>
<tr><td>exactly 2 right angles
diagonals are not equal lengths</td><td>trapezium</td></tr>
<tr><td>no right angles
diagonals are not equal lengths</td><td>rhombus</td></tr>
</table>
</td><td>2</td><td>Award 1 mark for three correct answers with no repeats.
<table>
<tr><th>Name of Oliver's quadrilateral</th></tr>
<tr><td>rectangle</td></tr>
<tr><td>kite</td></tr>
<tr><td>trapezium or kite</td></tr>
<tr><td>rhombus or kite or trapezium</td></tr>
</table>
</td><td></td></tr>
</table>

Question	Answer	Marks	Part Marks	Guidance
26	One pair of numbers from: 4.1 and 4.4 or 4.2 and 4.3 or 4.2 and 4.4 or 4.3 and 4.4	**1**		Do **not** accept repeated numbers, e.g. 4.3 and 4.3 The numbers in the pair can be in any order.
27(a)	30	**1**		
27(b)	24	**1**		
28	The probability of a difference of 5 is half the probability of a difference of ....4.... . There is almost a 50% chance of getting a difference of .....1..... or less. The probability of a difference of ...0... is about the same as the probability of a difference of ....3.... .	**2**	Award 1 mark for **two** correct sentences.	Accept 0 and 3 in either order in last sentence.
29	2401	**1**		**Do not** accept 49^2
30	680 (cents)	**1**		Accept equivalent answers, e.g. \$6.8(0) Do not accept 6.8 without the correct units.

Cambridge Assessment International Education

Cambridge Primary Checkpoint

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER			

5463032333

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.

[Turn over

1 Calculate.

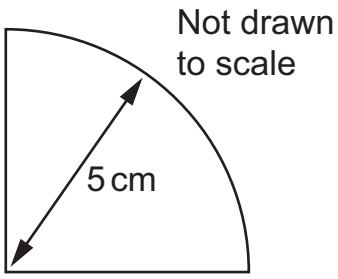
(a) 75 × 5 × 2 + 65

..... [1]

(b) 8 + (3 + 2) × 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]

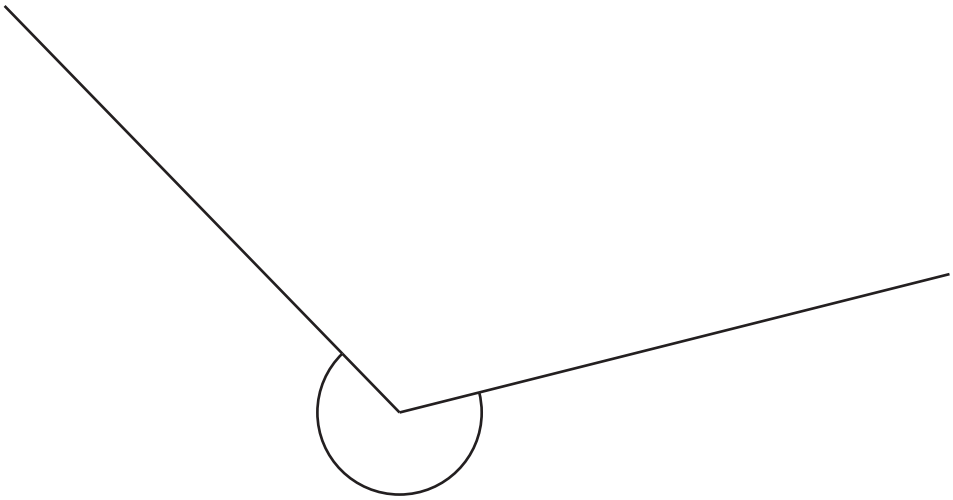
4 Complete the calculation.

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

[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]

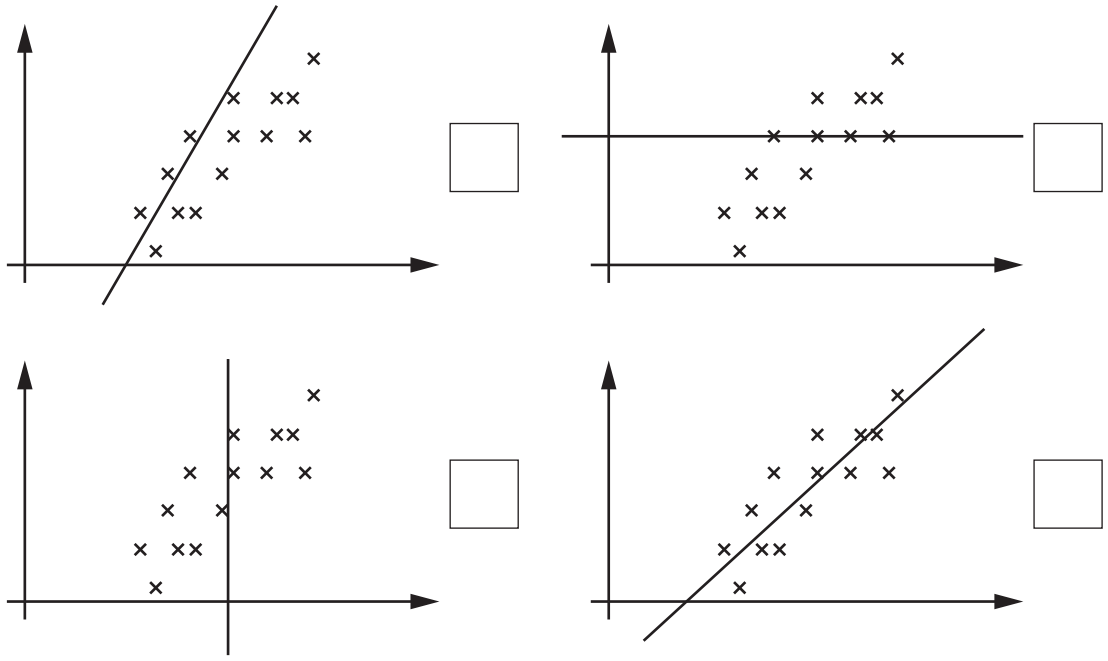
(b) Here is a list of numbers.

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.

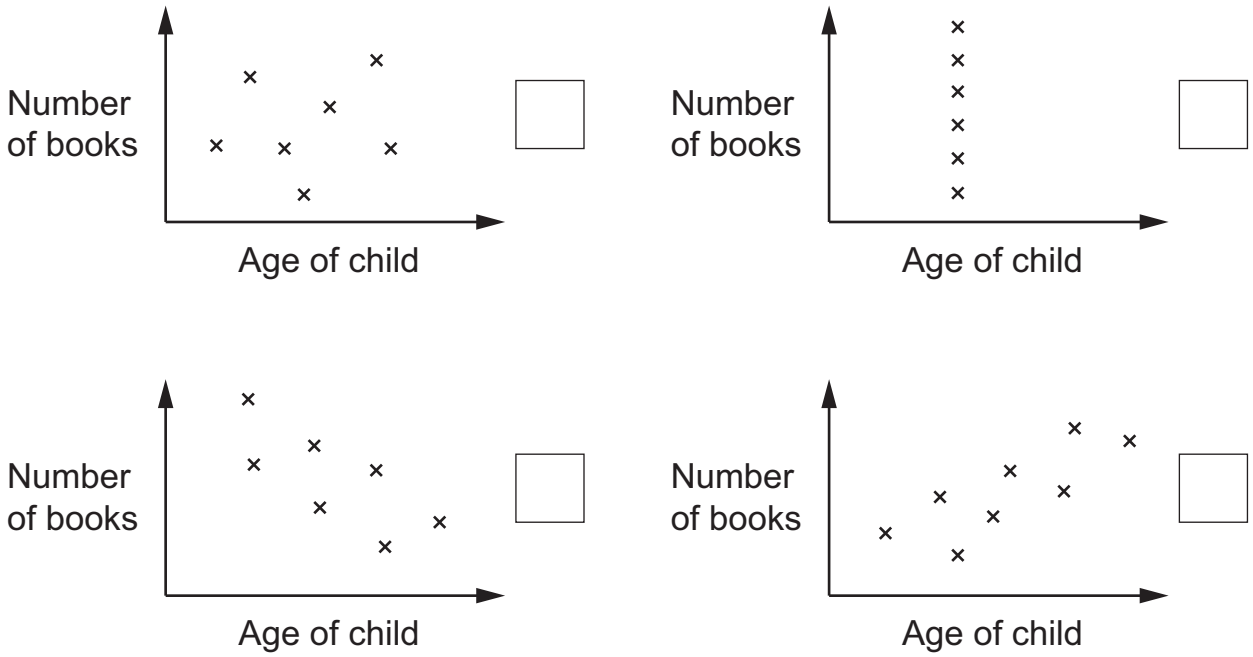
(a) Tick (✓) the graph with the correct line of best fit.



[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.

$6.2 \div$ ☐ $\div$ ☐ $= 6.2 \times 10 \div$ ☐

[1]

12 Pierre wants to produce a representation of his data.

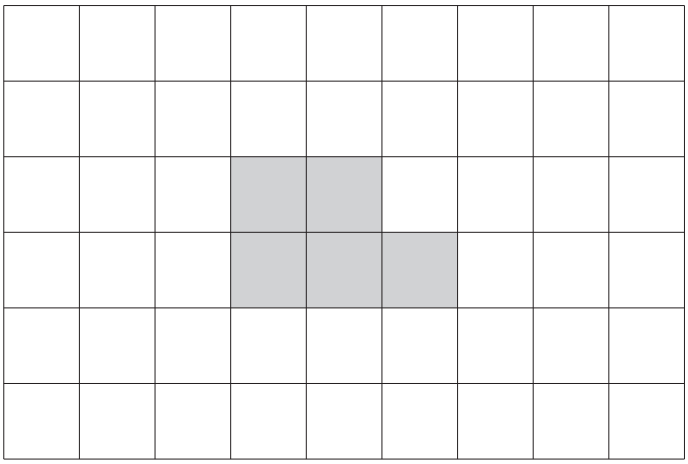
Draw a line to match the data to the correct representation.

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)

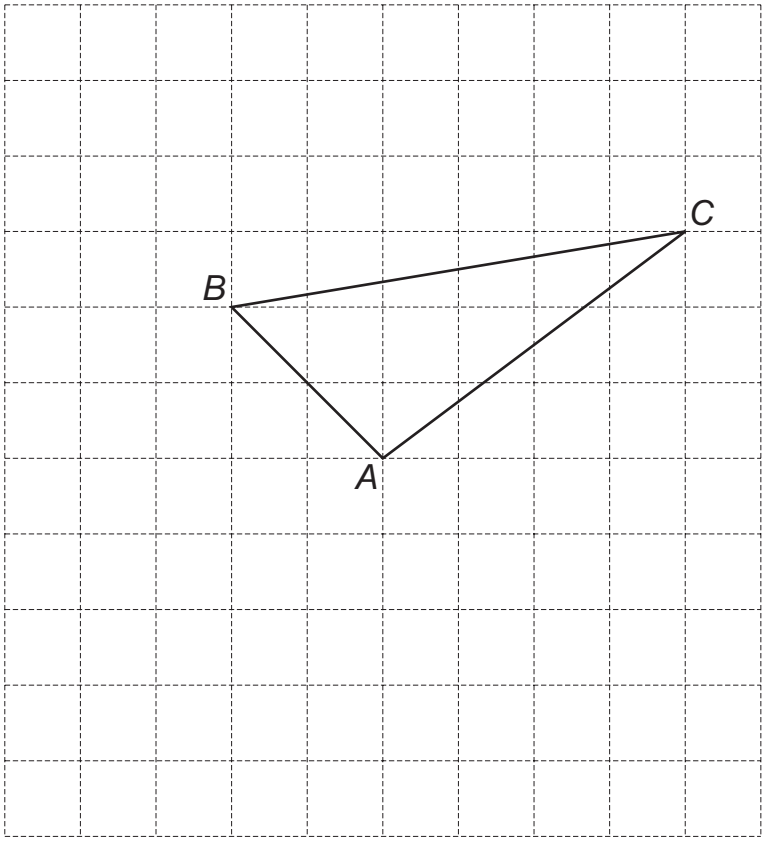
[1]

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.



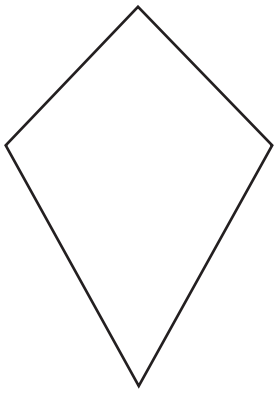
Rotate the triangle 90° **anticlockwise** about point *A*. [2]

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]

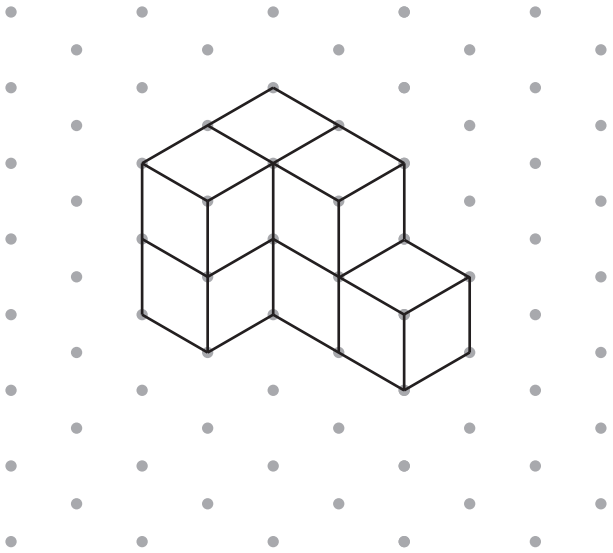
(b) Yuri uses this data to predict the likelihood of rolling a 1 on **both** dice.

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

impossible unlikely even chance likely certain

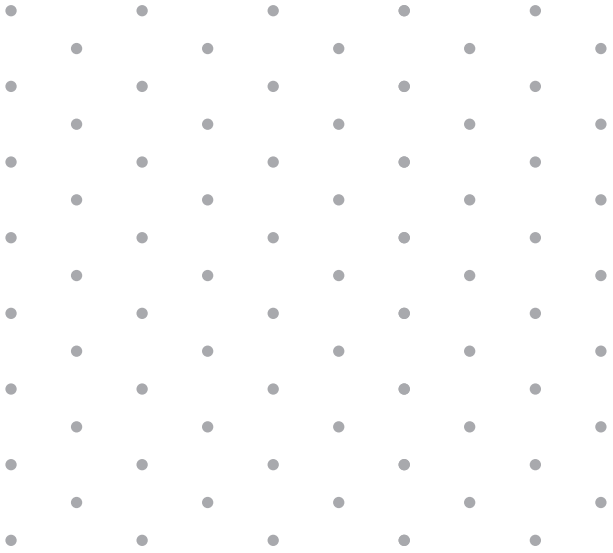
[1]

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.

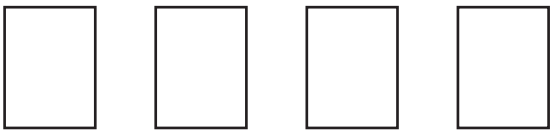


[2]

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.

.....

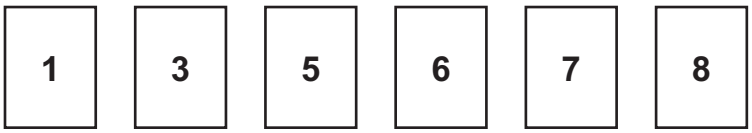
Explain your answer.

.....

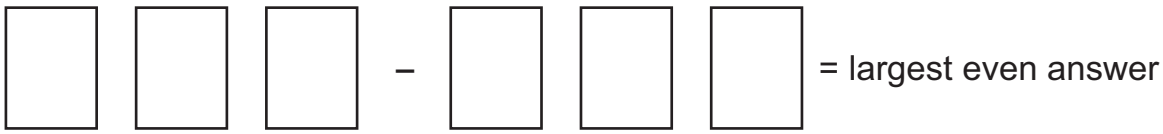
.....

..... [1]

28 Here are six digit cards.



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



[1]

BLANK PAGE

Cambridge Assessment International Education

Cambridge Primary Checkpoint

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER			

8273595788

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.
- 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. Any blank pages are indicated.

[Turn over

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

4.36 4.70 4.03 4.63 4.07

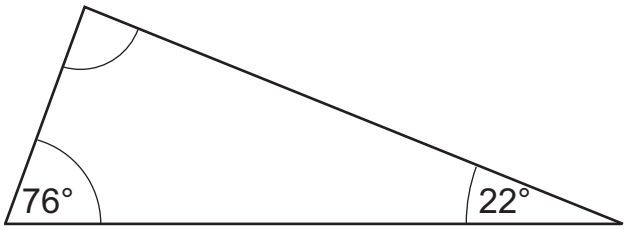
....

smallest largest

[1]

2 Calculate the size of the missing angle.

Not drawn to scale



.....° [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]

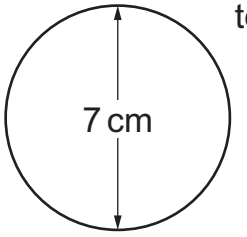
8 Write each fraction in its simplest form.

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

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

[2]

9 Here is a sketch of a circle.



Not drawn to scale

Draw the circle accurately.
Use a pair of compasses.

[1]

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.

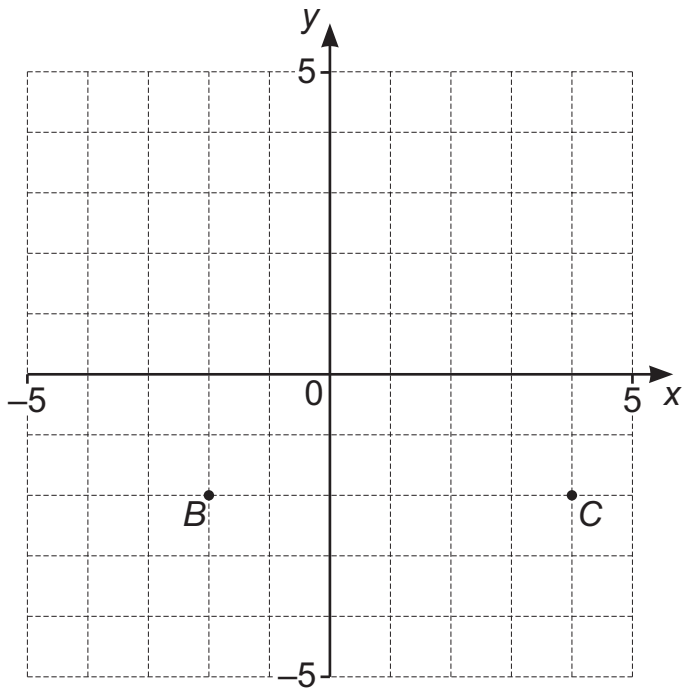
..... [1]

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.

$5 \div 4$	$\frac{1}{2}$
$8 \div 5$	$1\frac{1}{4}$
$4 \div 8$	$\frac{4}{5}$
	$\frac{8}{4}$
	$1\frac{1}{5}$
	$\frac{8}{5}$

[2]

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

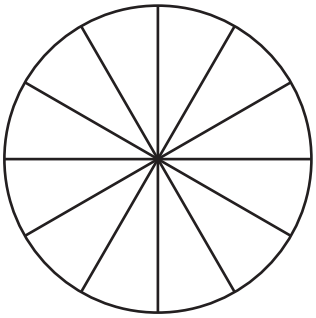
He continues the pattern in the same way.
The completed necklace has 30 beads.
The ratio of white to black beads is **not** 3 : 1

Explain.

.....

..... [1]

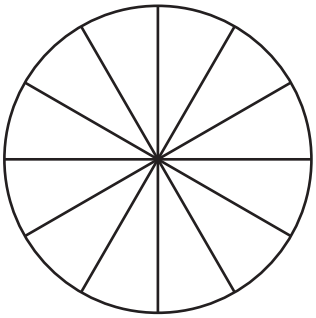
16 (a) Here is a spinner with 12 equal sections.



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.

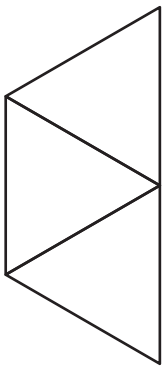
..... out of ..... chance [1]

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.



[1]

19 Carlos has some photo frames.

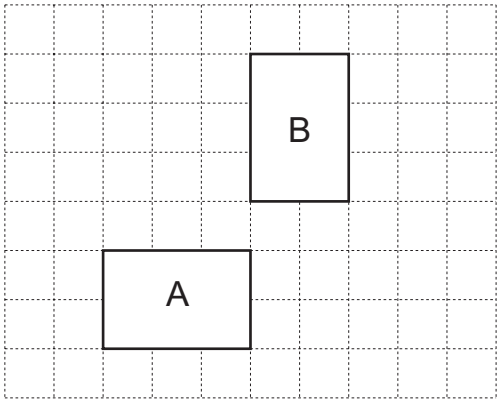
He measures the sides of each frame and records their perimeters in centimetres.
The lengths of **all** the sides are whole numbers.

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.

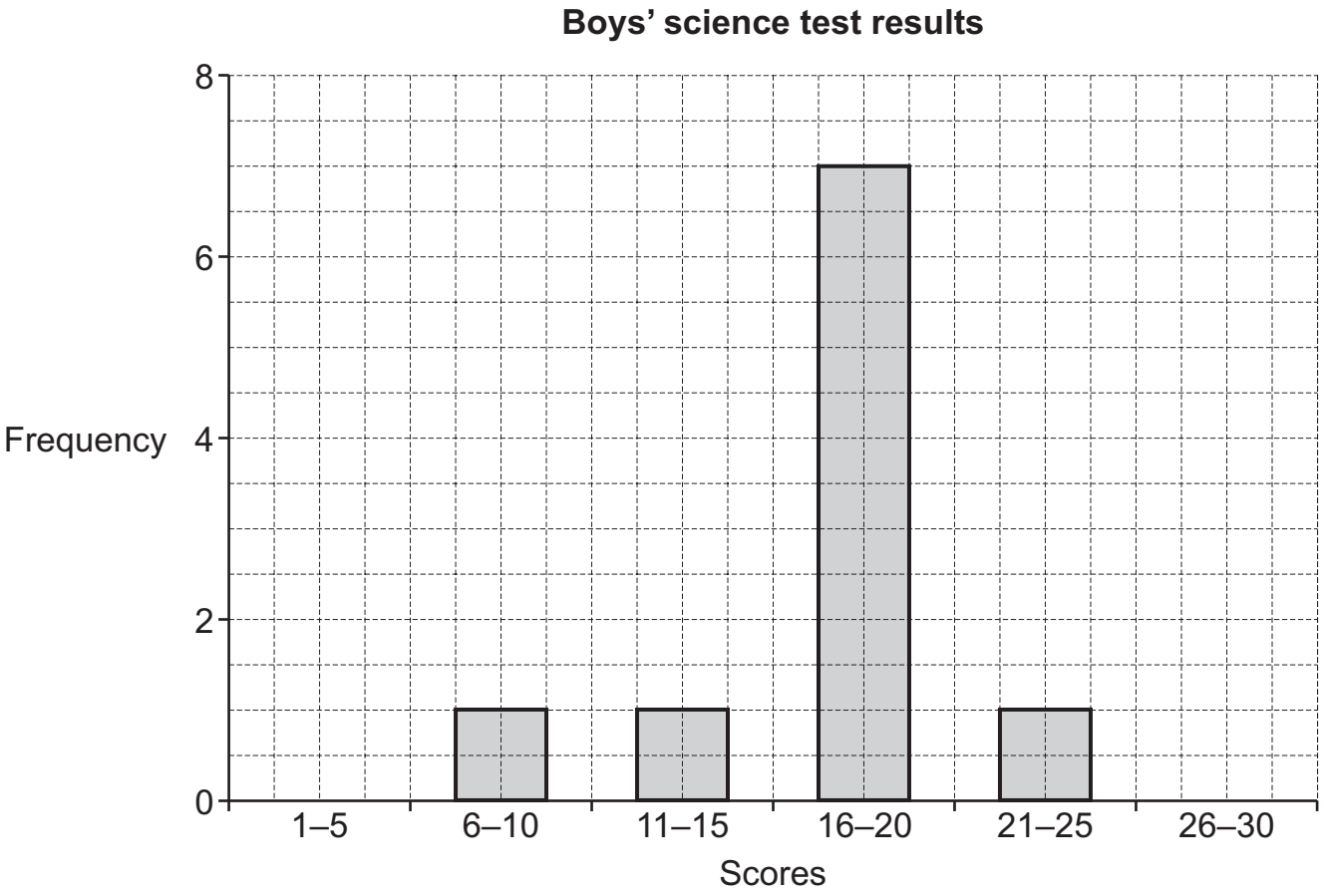
Explain how you know.

.....

..... [1]

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

Here is the data for the boys' test results.



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]

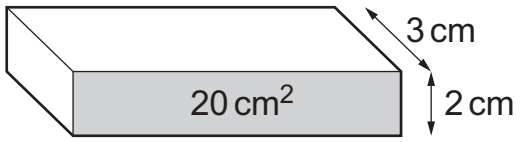
(b) Look at the data for the boys and girls.
Identify a problem with Ahmed's investigation.

.....

..... [1]

22 Here is a cuboid.

Not drawn to scale



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

..... cm^2 [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.

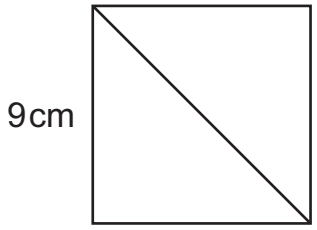
$ ..... [2]

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.



Not drawn to scale

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

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

..... cm^2 [2]

BLANK PAGE

Cambridge Assessment International Education

Cambridge Primary Checkpoint

MATHEMATICS **0096/01**

Paper 1 **April 2023**

MARK SCHEME

Maximum Mark: 40

Published

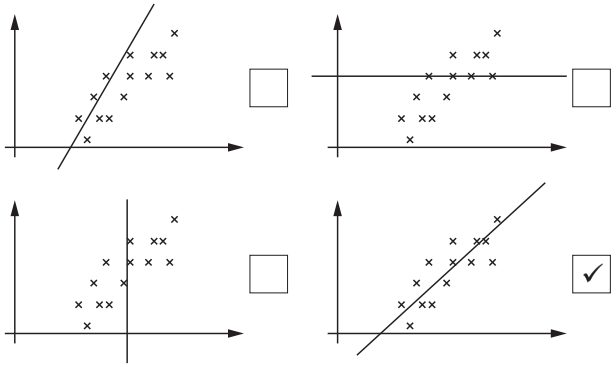
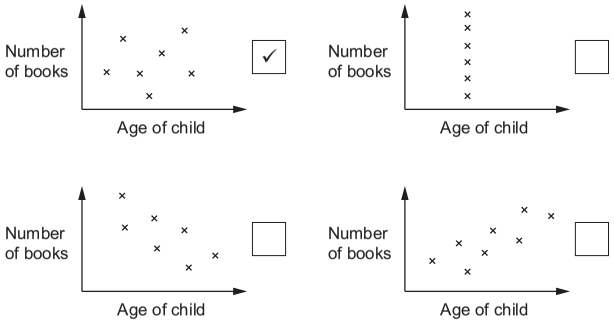
This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Markers were instructed to award marks. It does not indicate the details of the discussions that took place at a Markers' meeting before marking began, which would have considered the acceptability of alternative answers.

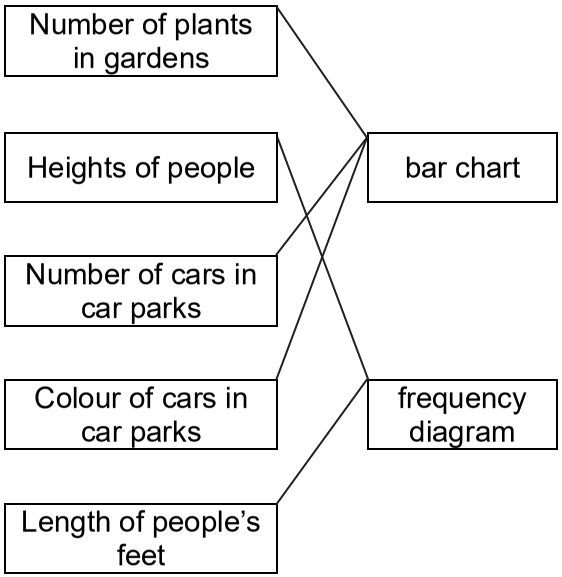
Mark schemes should be read in conjunction with the question paper and the End of Series Report. Cambridge will not enter into discussions about these mark schemes.

Mark scheme annotations and abbreviations

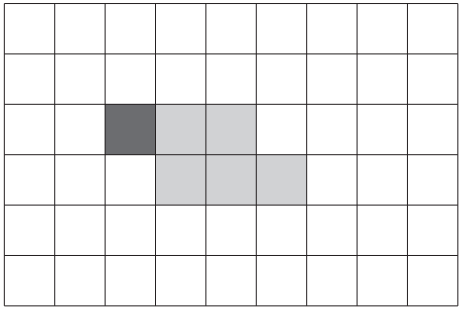
M1	method mark
A1	accuracy mark
B1	independent mark
FT	follow through after error
dep	dependent
oe	or equivalent
cao	correct answer only
isw	ignore subsequent working
soi	seen or implied

Question	Answer	Marks	Part Marks	Guidance
1(a)	815	**1**		
1(b)	43	**1**		
2	10 (cm)	**1**		
3	150 (minutes)	**1**		
4	$\frac{1}{6}$	**1**		Accept equivalent answers. Accept 0.17 or better.
5	240(°)	**1**		Accept answers between 238 and 242(°).
6(a)	21	**1**		Accept any clear indication.
6(b)	2	**1**		Accept any clear indication.

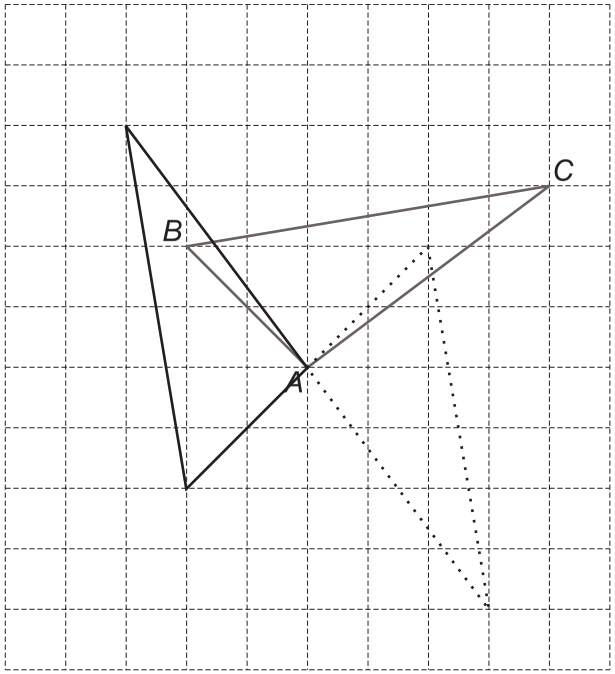
Question	Answer	Marks	Part Marks	Guidance
7(a)		**1**		Accept any clear indication.
7(b)		**1**		Accept any clear indication.
8	–35	**1**		Do not accept 35–
9(a)	12	**1**		Do not accept improper fractions except $\frac{12}{1}$
9(b)	36	**1**		Do not accept improper fractions except $\frac{36}{1}$

Question	Answer	Marks	Part Marks	Guidance
10(a)	154.773	**1**		
10(b)	13.212	**1**		
11	6.2 ÷ 10 ÷ 10 = 6.2 × 10 ÷ 1000	**1**		
12		**2**	Award 1 mark for three or four correct lines.	

Question	Answer	Marks	Part Marks	Guidance

13		**1**		Award the mark for the correct square shaded.
14	**A** **B** 17 3 ✓ 14 12 ☐ 24 –4 ☐ 11 9 ✓ 8 12 ☐	**2**	Award 1 mark for one line correct and no others indicated **or** two lines correct and one incorrect.	Award 2 marks for both correct and none incorrect.
15	12 × 700 123 × 70 1234 × 7	**1**		Accept 8400 8610 8638 The products, if written on the answer line, must be correct.

Question	Answer	Marks	Part Marks	Guidance

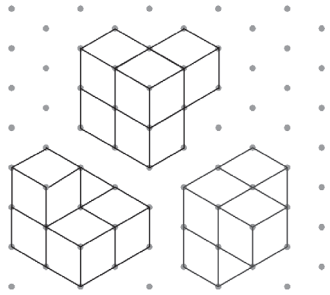
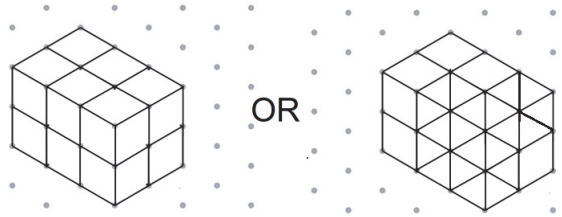
16	(2, 1) (7, 2) (2, 2) (8, 2) (2, 6)	**1**		All three required for the mark. Accept any clear indication.
17	17	**1**		
18		**2**	Award 1 mark for 90 degree rotation in wrong direction shown by dotted line. **or** for rotation anticlockwise with A corresponding to A' and one of the vertices B' or C' correct and the three points joined to form a triangle.	Accept slight inaccuracies as long as the intention is clear.

Question	Answer	Marks	Part Marks	Guidance

19	32.783	**1**		Allow $32\ \frac{783}{1000}$ or equivalent.
20	2 identical scalene triangles ✓ 2 identical equilateral triangles ☐ 2 different isosceles triangles ✓ 2 different equilateral triangles ☐	**1**		Award 1 mark for both correct and no incorrect responses. Accept any clear indication.
21	Any data that changes over time e.g. Ice cream sales on different days in July or Temperature at different times of the day **or** Any data that changes over a different continuum, e.g. temperature	**1**		Their example must include changes over time or changes over the continuum they use. e.g. Do not accept ice cream sales without mention of the time. Allow any inference of a variable plotted against time or temperature etc.
22	**3** . **a** **b** with a = 0, 1, 2, 3, 4 and b = 5, 6, 7, 8, 9	**1**		Both boxes must contain a digit.

Question	Answer	Marks	Part Marks	Guidance

23	–0.2	**2**	Award 1 mark for sight of 0.3 as the difference between the terms **or** 1.2 ÷ 4 = wrong answer **or** At least three of the missing terms from **1.9** (1.6) **1.3, 1, 0.7**, (0.4), 0.1	Do not accept 0.2–
24(a)	12	**1**		
24(b)	impossible unlikely even chance likely certain	**1**		Accept any clear indication.

Question	Answer	Marks	Part Marks	Guidance
25	The correct shape in any orientation. e.g.  **or** Completing the required cuboid (possibly in the original drawing) i.e. 	**2**	Award 1 mark for **any** shape with 5 cubes that is drawn correctly using isometric paper.	Accept slight inaccuracies if the intention is clear.
26	Any four even numbers with a digit sum that is a multiple of 3	**1**		

Question	Answer	Marks	Part Marks	Guidance
27(a)	2, 5 and 23 in any order **or** 2, 11 and 17 in any order	**1**		
27(b)	2 **and** an explanation that there are not 3 even prime numbers so it must be two odd numbers and one even number. e.g. 2 is the only even prime number but if I use 3 other primes then the answer is odd. **or** any explanation that alludes to needing an even number when adding three prime numbers with a total of 30 (O + O + E = E). 2 is the only even prime so it has to be included **or** 2 **and** an explanation that 2, 5 and 23 **and** 2, 11 and 17 are the only possible answers and 2 is in both.	**1**		If explaining that 2 is in both possible answers then 2,5,23 and 2,11,17 **must** be seen. They may be listed in part (a) or (b)
28	8 6 7 – 1 3 5 = largest even answer	**1**		Allow 887 - 111

BLANK PAGE

Cambridge Assessment International Education

Cambridge Primary Checkpoint

MATHEMATICS **0096/02**

Paper 2 **April 2023**

MARK SCHEME

Maximum Mark: 40

Published

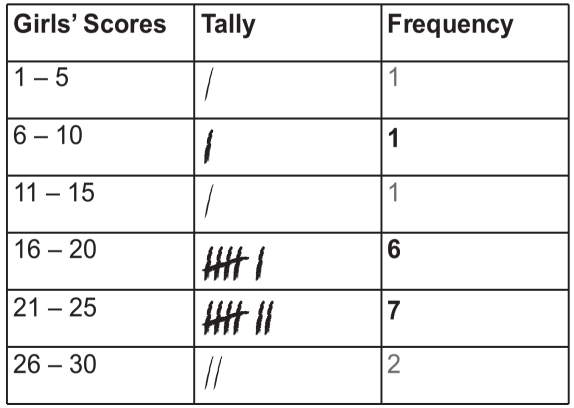
This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Markers were instructed to award marks. It does not indicate the details of the discussions that took place at a Markers' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the End of Series Report. Cambridge will not enter into discussions about these mark schemes.

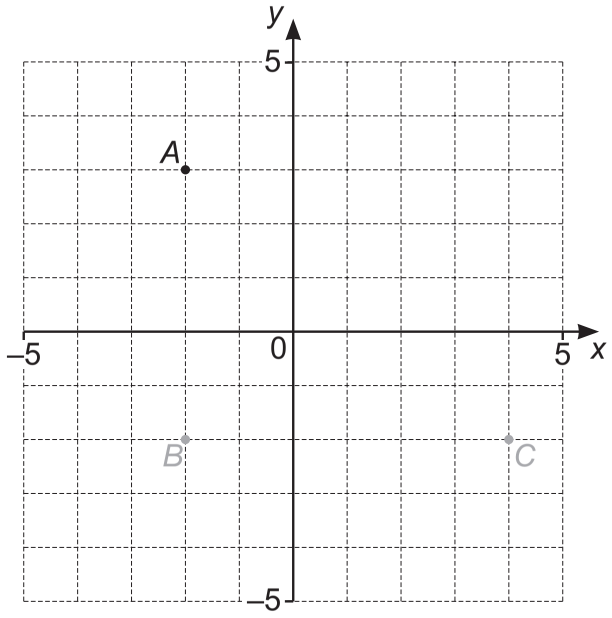
Mark scheme annotations and abbreviations

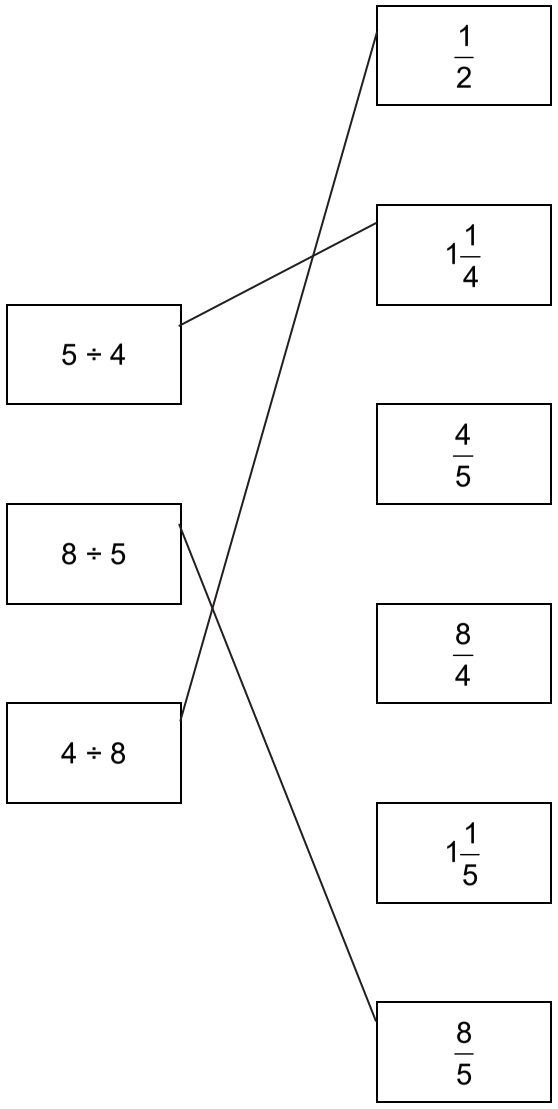
M1	method mark
A1	accuracy mark
B1	independent mark
FT	follow through after error
dep	dependent
oe	or equivalent
cao	correct answer only
isw	ignore subsequent working
soi	seen or implied

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th><th>Part Marks</th><th>Guidance</th></tr>
<tr><td>1</td><td>4.03 4.07 4.36 4.63 4.70</td><td>1</td><td></td><td>Correct order only.</td></tr>
<tr><td>2</td><td>82(°)</td><td>1</td><td></td><td></td></tr>
<tr><td>3</td><td>$\frac{3}{10}$ $\frac{6}{100}$ $\frac{7}{10}$ $\frac{60}{100}$ $\frac{40}{100}$</td><td>1</td><td></td><td>Accept any clear indication.</td></tr>
<tr><td>4</td><td>rhombus</td><td>1</td><td></td><td>Accept recognisable misspellings.
No other shape accepted.</td></tr>
<tr><td>5</td><td><table><tr><th>Position</th><th>Term</th></tr><tr><td>1</td><td>7</td></tr><tr><td>2</td><td>14</td></tr><tr><td>3</td><td>21</td></tr><tr><td>10</td><td>70</td></tr><tr><td>15</td><td>105</td></tr><tr><td>50</td><td>350</td></tr></table></td><td>2</td><td>Award 1 mark for two correct answers.</td><td></td></tr>
<tr><td>6</td><td>34</td><td>1</td><td></td><td></td></tr>
</table>

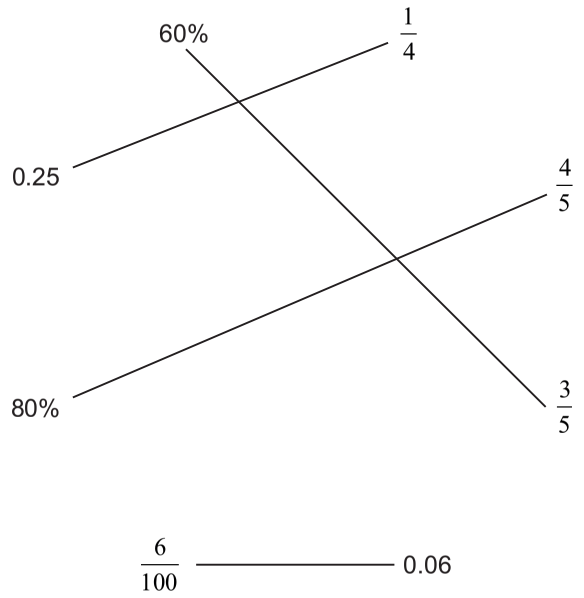
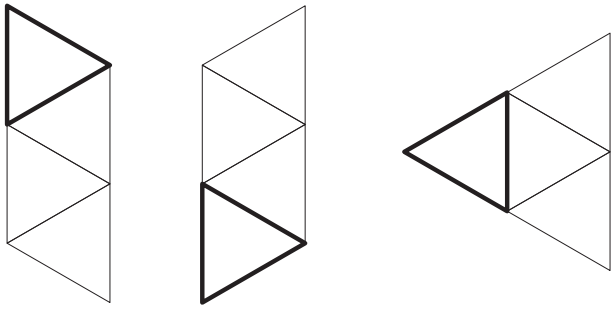
Question	Answer	Marks	Part Marks	Guidance
7(a)	19	**1**		
7(b)		**1**		Do **not** accept answers without tally marks or tally marks incorrectly displayed.
8	$\frac{1}{5}$ $4\frac{2}{5}$ or $\frac{22}{5}$	**2**	Award 1 mark for each correct answer.	
9	A correctly drawn circle of diameter 7 cm	**1**		Accept slight inaccuracies provided the drawing was made using a pair of compasses. Accept 6.5 cm ≤ diameter ≤ 7.5 cm.

Question	Answer	Marks	Part Marks	Guidance
10	An explanation stating that he should do the division first. e.g. He should do the 20 ÷ 5 first (and get 35 – 4 which equals 31) **or** a correct calculation **or** recognising that to get the answer of 3 they need to include brackets i.e. (35 – 20) ÷ 5 **or** an explanation that states they have written 3 and not 31 in the answer e.g. They have missed the 1 in the answer **or** A reference to the fact that they have not used BODMAS (or equivalent).	**1**		Accept 31 without an explanation. 31 is not essential. If any arithmetic is shown, it MUST be correct. Allow reasonable phonetic inaccuracies for BODMAS
11	5	**1**		If working is shown it must be correct to calculate the median e.g. (4 + 6) /2 NOT e.g. (7 + 3) /2 = 5 or 7 – 2 = 5
12	20(%)	**1**		

Question	Answer	Marks	Part Marks	Guidance
13(a)		**1**		Point *A* correctly plotted. Allow any unlabelled point at *A* provided that no other point is labelled *A* or no ambiguous points are plotted e.g. (2,-3)
13(b)	(1, –2)	**1**		

Question	Answer	Marks	Part Marks	Guidance
14		**2**	Award 1 mark for **two** correct lines.	

Question	Answer	Marks	Part Marks	Guidance
15	An explanation that the necklace does not use complete patterns. e.g. He will have 2 extra white beads **or** the pattern is made up of 4 beads and 30 does not divide by 4 **or** the ratio is 23 : 7 (white to black beads). **or** they would need 32 beads or 28 beads in total, for it to be 3 : 1	**1**		Do **not** accept explanations with errors. e.g. He will have 2 extra black beads. Allow 22:8 for answers that have extended the pattern to the left.
16(a)	2 sections shaded	**1**		
16(b)	7 (out of) 12 (chance)	**1**		Accept equivalent proportions.

Question	Answer	Marks	Part Marks	Guidance
17		**2**	Award 1 mark for **two** or **three** correct lines.	
18	 3 possible answers	**1**		Accept slight inaccuracies if the intention is to draw a correct equilateral triangle.

Question	Answer	Marks	Part Marks	Guidance
19	**Perimeter (cm)** / **Rectangular frame** / **Square frame** 50 ☑ ☐ 36 ☑ ☑ 45 ☐ ☐ 28 ☑ ☑	**2**	Award 1 mark for **two** or **three** rows correct.	Accept any clear indication.
20	An explanation recognising that a translation will produce an identical shape with the same orientation. e.g. If he did a translation, then the rectangle would have moved but not have been rotated **or** B has turned **or** B is not facing in the same direction.	**1**		Accept an explanation that the shape has been rotated or that it has been translated and rotated.

Question	Answer	Marks	Part Marks	Guidance
21(a)	The range of marks is greater for the **girls** More **boys** than **girls** scored from 11 to 20 The highest mark was scored by a **girl** The lowest mark was scored by a **girl**	**2**	Award 1 mark for **three** correct sentences.	Accept girl for girls etc.
21(b)	The data is shown in different formats making it harder to compare the results **or** the frequency scale on the bar chart has each square representing half a person **or** a suggestion that a larger sample size would produce better results if comparing **or** a suggestion that a similar number of boys and girls would be needed if comparing.	**1**		Do **not** accept response suggesting 'We do not have accurate **or** complete data'. Do **not** accept an explanation saying that class six has more girls than boys if there is no reference to making a comparison.
22	112 (cm2)	**2**	Award 1 mark for sight of 20 ÷ 2 =10 or correct method with arithmetic error. e.g. 20 ÷ 2 = error 2((error × 3) + (3 × 2) + (error × 2))	Allow 1 mark if the length of the cuboid is shown as 10(cm) either on the diagram or stated in their working.

Question	Answer	Marks	Part Marks	Guidance
23(a)	An explanation recognising that the answer **must** be less than 1 without showing the addition $\frac{2}{3} + \frac{1}{4} = \frac{11}{12}$ e.g. $\frac{1}{4}$ is less than $\frac{1}{3}$ so the answer cannot be more than 1 **or** a correct subtraction showing answer incorrect. e.g. $1\frac{1}{12} - \frac{2}{3}$ does not equal $\frac{1}{4}$ **or** I think the numerator shouldn't be 13, it should be less.	**1**		Do **not** accept a numerical answer only, e.g. $\frac{11}{12}$ Accept: the addition of the two fractions is **less** than 1 or $1\frac{1}{12}$
23(b)	An explanation that recognises that the answer will be a number of thirtieths or equivalent e.g. She will need to change them both to thirtieths, (which will never simplify to elevenths). **or** it is not correct to add the denominators of two fractions to get the denominator of their sum **or** a reference that the **denominator** of 11 is not the LCM of 5 and 6 **or** a correct subtraction to show the answer is not correct. e.g. $\frac{7}{11} - \frac{2}{5}$ does not equal $\frac{1}{6}$	**1**		Do **not** accept a numerical answer only e.g. $\frac{17}{30}$

Question	Answer	Marks	Part Marks	Guidance
24	($)16	**2**	Award 1 mark for 1 orange costs $2 **or** 2 oranges cost $4	 Allow 1 mark if calculation 12 ÷ 6 = 2 is seen (without "orange") Allow 1 mark if calculation 12 ÷ 3 = 4 is seen (without "orange")
25	83	**1**		
26	40.5 (cm2)	**2**	Award 1 mark for a complete correct method with arithmetical errors e.g. $\left(\frac{1}{2} \times 9 \times 9\right)$ = wrong answer.	Allow $40\ \frac{1}{2}$ (cm2)

BLANK PAGE