



Mathematics

Stage 6

Paper 1

2024

Cambridge Primary Progression Test

Name

Class

Date

45 minutes

Additional materials: Compasses
Protractor
Tracing paper (optional)

INSTRUCTIONS

- Answer **all** questions.
- Write your answer to each question in the space provided.
- You should show all your working on the question paper.
- 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 [].

1 Work out.

$$5342 \times 2 = \boxed{}$$

[1]

2 Write down the number that is one thousand times bigger than 10.42

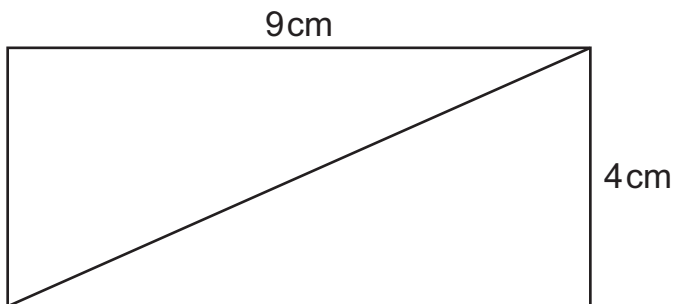
..... [1]

3 Write the calculation $7 \div 8$ as a fraction.

$$\frac{\boxed{}}{\boxed{}}$$

[1]

4 Here is a rectangle made with two triangles.

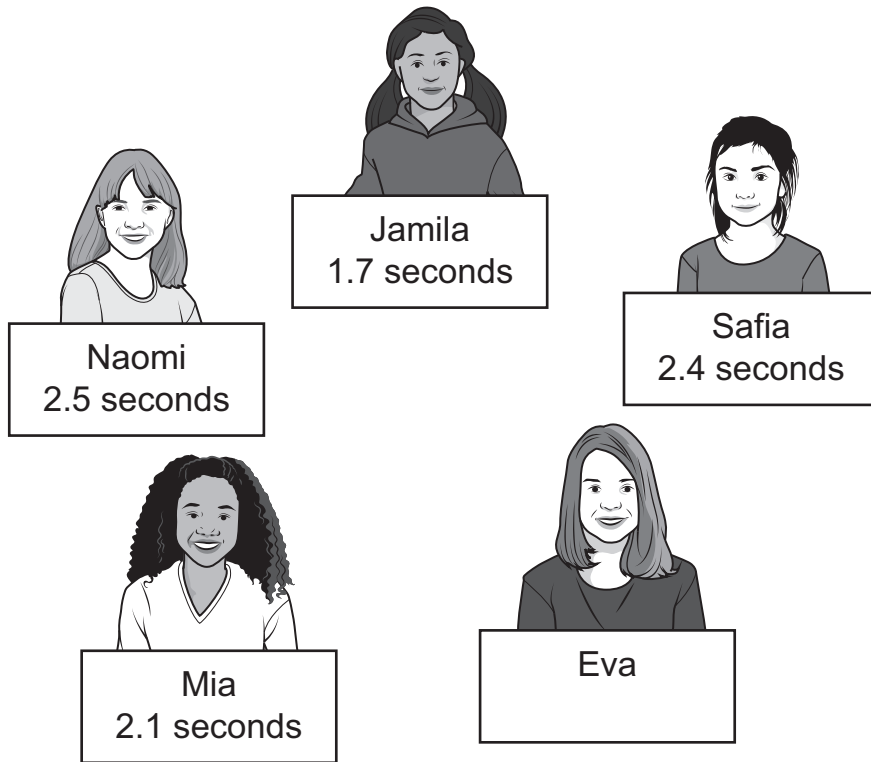


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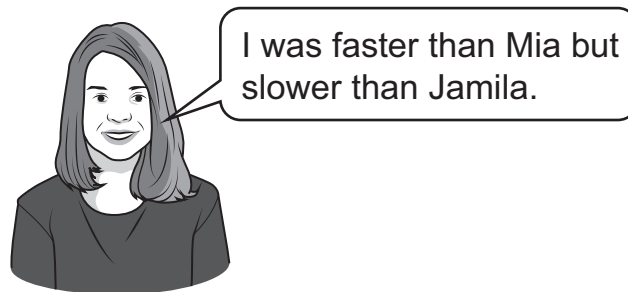
Work out the area of one of the triangles.

..... cm² [1]

- 5 Five children measure the time it takes each of them to walk across the classroom. Here are some of the results.



Eva says,



Write a possible time for Eva to walk across the classroom.

..... seconds [1]

6 Work out.

$$256 \div 8$$

..... [1]

7 Write the lengths of time in order from the shortest to the longest.

0.25 hour

17 minutes

$\frac{1}{3}$ hour

600 seconds

.....

shortest

.....

.....

.....

longest

[1]

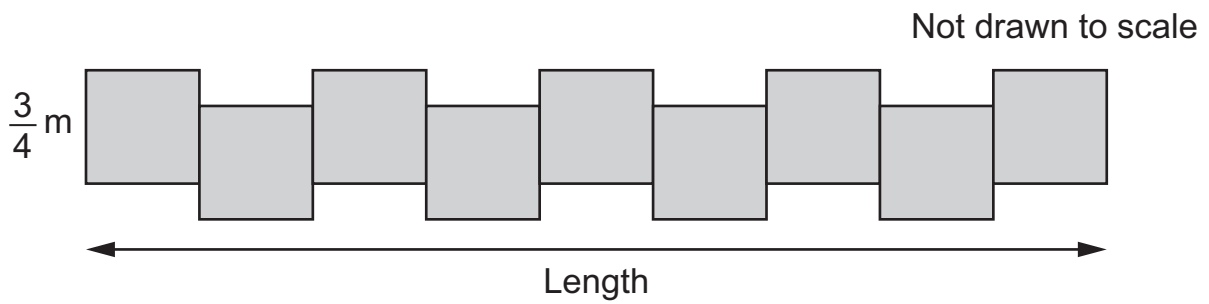
8 A box of cereal has a mass of 1.85 kilograms.
A hotel uses 8 boxes of cereal each week.

Write the total mass of cereal the hotel uses each week.

..... kilograms [1]

9 Lily joins 9 square tiles to make a path.

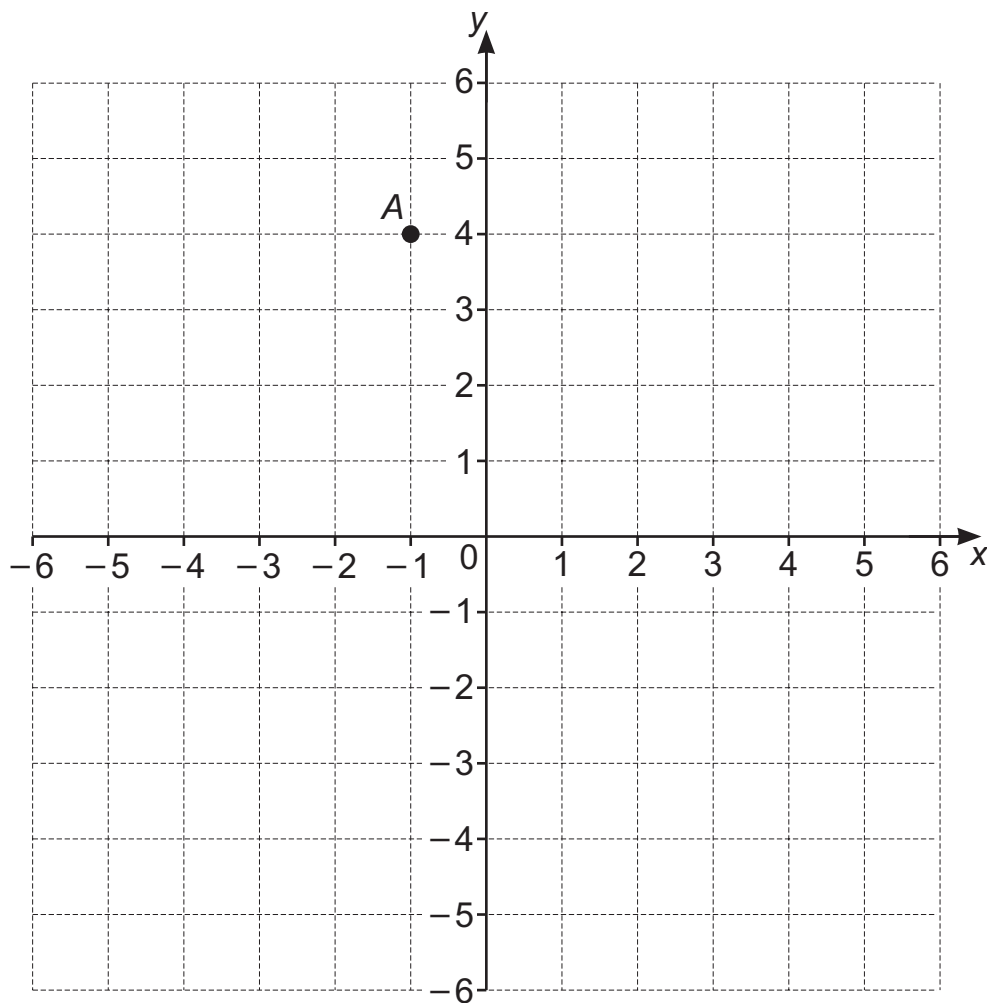
The length of each tile is $\frac{3}{4}$ metre.



Calculate the length of the path.

..... metres [1]

10 Point A is shown on a coordinate grid.



(a) Write the coordinates of point A .

(..... ,) [1]

(b) Point B has the coordinates $(2, -4)$.

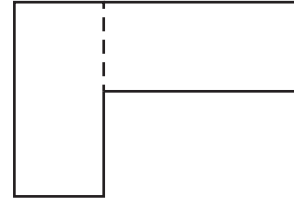
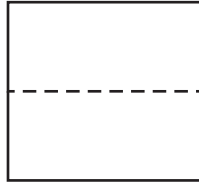
Plot point B on the coordinate grid.

[1]

11 Jamila has some identical rectangles.



She joins two rectangles to make these new shapes.



Tick (✓) to show if each statement about Jamila's new shapes is always true, sometimes true or never true.

Statement	Always true	Sometimes true	Never true
The perimeter of each new shape is double the perimeter of one rectangle.			
The area of each new shape is double the area of one rectangle.			

[1]

12 (a) Calculate.

$$2 \times (4 + 1)$$

..... [1]

(b) Write one pair of brackets to make this calculation correct.

$$2 + 4 \times 3 = 18$$

[1]

- 13** Pierre wants to compare the amount of time he spends on some activities during the week and at the weekend. He collects data for one day in the week and one day at the weekend. Here are his results.

What Pierre does on one day in the week



What Pierre does on one day at the weekend



- (a)** Write a sentence to compare the **amount of time** Pierre spends watching television on the two days.

.....
 [1]

- (b)** Write a number in the box to make the sentence correct.

At the weekend, Pierre spends about % of his day sleeping.

[1]

14 Write a digit in the box to make the statement correct.

$$5.4 - 1.117 = 6.6 - 2.3 \boxed{} 7$$

[1]

15 Angelique makes a number with four digit cards.
She wants the number to be divisible by 3 but **not** divisible by 6

2	5	4	
---	---	---	--

Write two **different** digits she could use to complete her number.

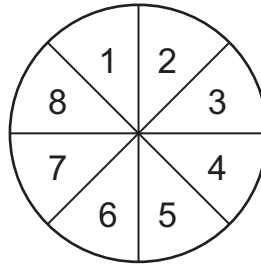
..... or [1]

16 Tick (✓) **four** numbers with a total of -3.142

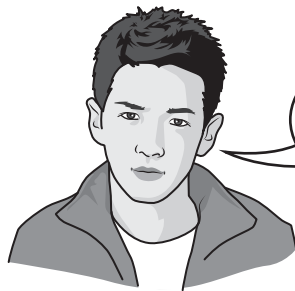
0.001	0.01	0.1	1	-1	-0.1	-0.01	-0.001
0.002	0.02	0.2	2	-2	-0.2	-0.02	-0.002
0.003	0.03	0.3	3	-3	-0.3	-0.03	-0.003
0.004	0.04	0.4	4	-4	-0.4	-0.04	-0.004
0.005	0.05	0.5	5	-5	-0.5	-0.05	-0.005

[1]

17 Carlos has a fair dice and a spinner divided into eight equal parts.



Carlos says,



It is equally likely that I will get an even number on the dice, as on the spinner.

Tick (✓) to show if Carlos is correct.

Yes

No

Explain how you know.

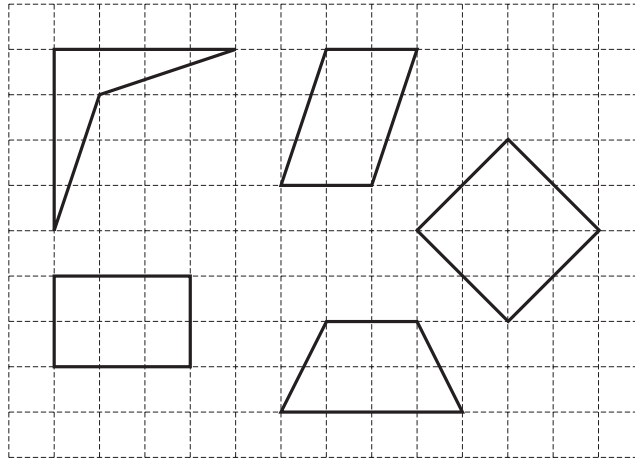
.....

.....

.....

[1]

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



Tick (✓) **two** shapes with the same order of rotational symmetry.

[1]

19 Draw a line to match each calculation to the correct label.

$$-35 - 16$$

$$-16 + 35$$

$$16 - 35$$

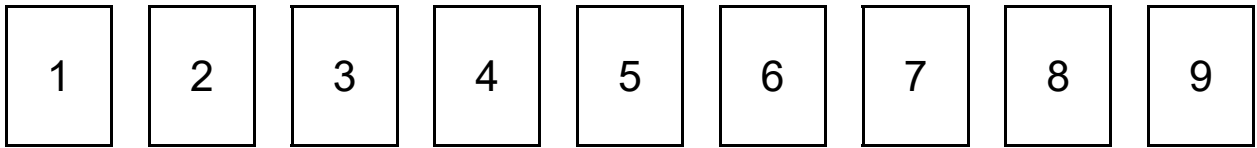
$$-35 + 16$$

positive answer

negative answer

[1]

20 Here is a set of digit cards.



Ahmed picks one digit card at random.

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

Event	Probability
Ahmed picks the number 4	1 in 9 chance
Ahmed picks an even number	1 in 3 chance
Ahmed picks a multiple of 3	4 in 9 chance

[1]

21 Samira chooses a number property.

She shades **all** the numbers on the chart that have her number property.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

Write Samira's number property.

..... [1]

22 Youssef starts to write three numbers.

$$3 \square .49$$

$$3 \square .08$$

$$3 \square .53$$

The numbers all round to 35 when rounded to the nearest whole number.

Write a digit in each box to complete Youssef's numbers.

[1]

23 Hassan has some bags of unit cubes.

The labels show the number of unit cubes in each bag.



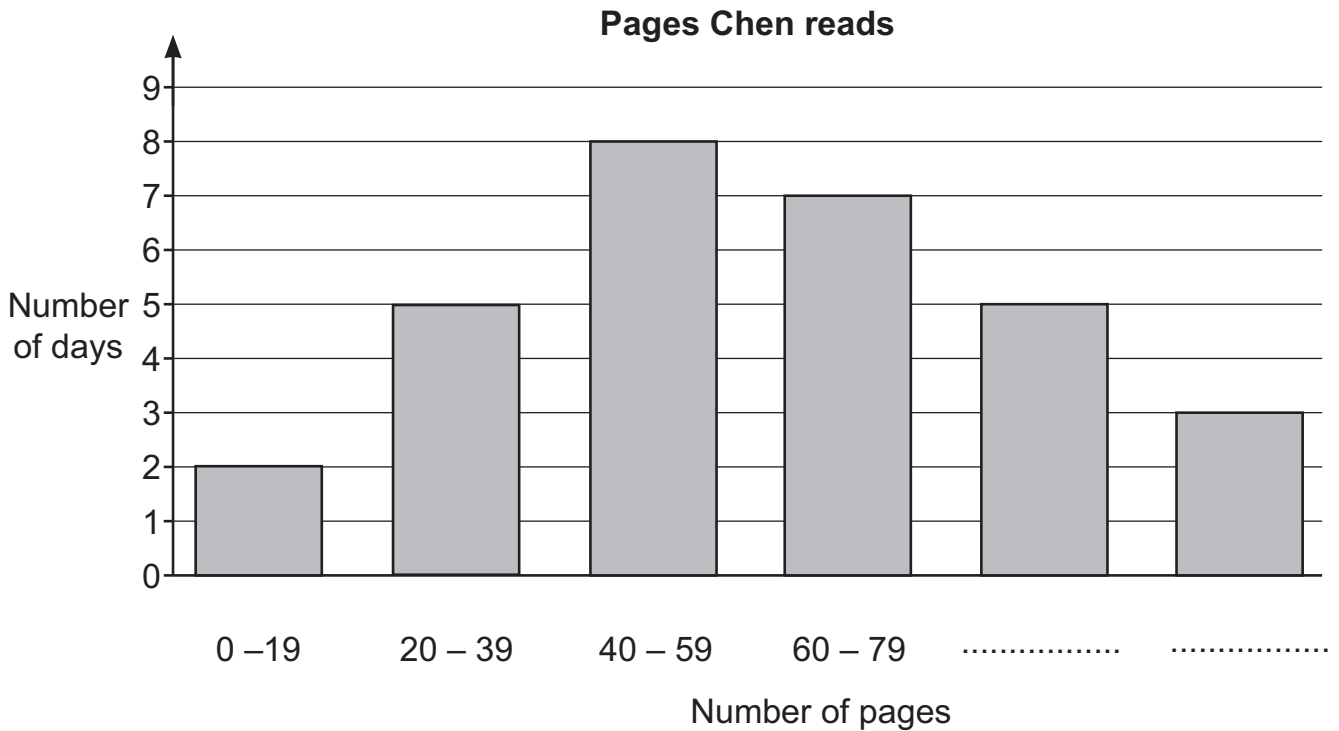
Hassan chooses one bag.

He uses **all** the cubes in the bag to make a larger cube.

Tick (✓) the bag Hassan chooses.

[1]

- 24** Chen takes part in a reading competition at his school. He records the number of pages of a book he reads each day. He groups the data using **equal** intervals. He draws a bar chart to show his data.



(a) Complete the labels on the x-axis of the bar chart. [1]

(b) Complete the sentence with the correct number.

Chen records the number of pages of a book he reads for days. [1]

25 Four children calculate 531×6

Here are their methods.

Ahmed	$500 \times 6 + 30 \times 6 + 1$	<input type="checkbox"/>
Rajiv	$531 + 531 + 531 + 531 + 531 + 531 + 531$	<input type="checkbox"/>
Mike	$500 \times 6 + 31 \times 6$	<input type="checkbox"/>
Oliver	$531 \times 2 \times 3$	<input type="checkbox"/>

Tick (✓) **all** the methods that will give the correct answer.

[1]

- 26** Safia asks 10 people in her class how they travel to school on Monday. Here are her results.

How people travel to school	Frequency
Taxi	1
Bus	3
Walk	2
Bicycle	4

- (a)** Safia wants to show the information in a waffle diagram. Here is her empty waffle diagram.

Write the number of squares Safia must shade to show how many people travel to school by bicycle on Monday.

..... [1]

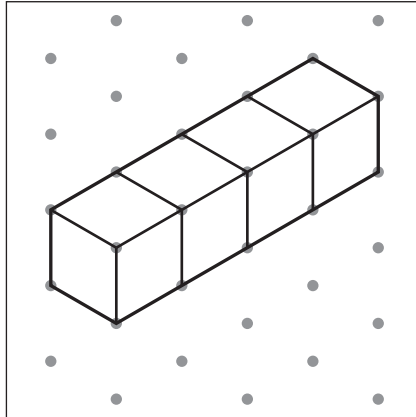
- (b)** Safia looks at her results and writes two conclusions.

Tick (✓) to show if each of Safia's conclusions are definitely true, maybe true or definitely false.

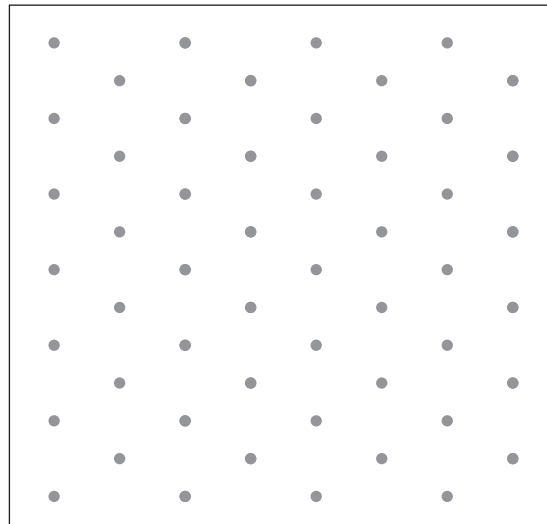
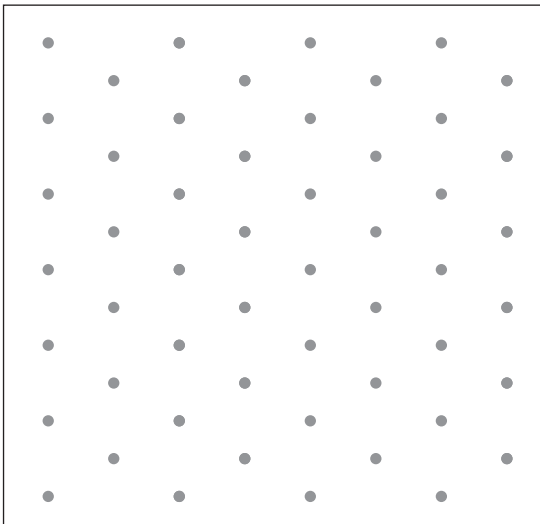
Conclusion	Definitely true	Maybe true	Definitely false
We do not need any parking places at our school because no-one comes to school by car.			
$\frac{4}{10}$ of the people I asked travel to school by bicycle on Monday.			

[1]

- 27 Mia uses four cubes to make a model.
Here is a sketch of her model.



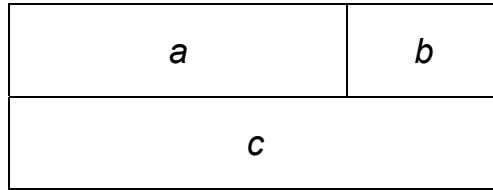
Sketch two **different** ways to join the four cubes to make a model.
Draw your sketches on the isometric grids.



[2]

28 Gabriella has three blocks.

The two shorter blocks fit **exactly** on top of the longest block.
Here is a diagram of the blocks.



a , b and c represent the lengths of each of the blocks in centimetres.

Tick (✓) the correct statement about the diagram.

$a = b + c$

$a - b = c$

$a + c = b$

$b = c - a$

[1]

29 Here is a list of fractions.

$\frac{7}{4}$

$\frac{19}{8}$

$\frac{12}{4}$

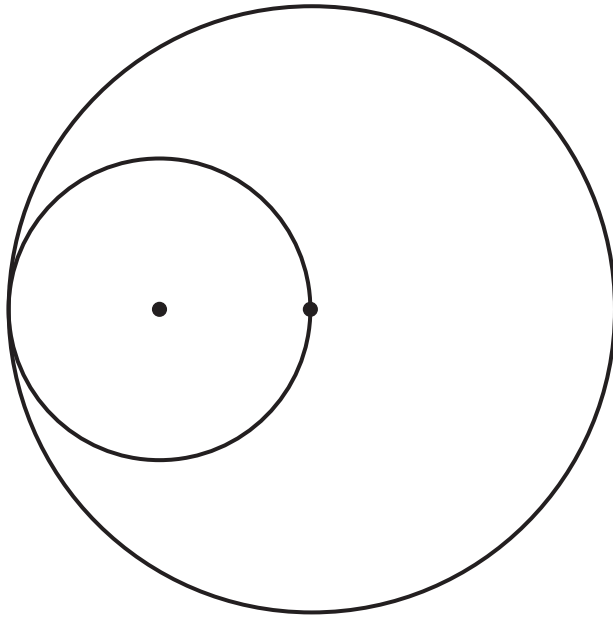
$\frac{22}{8}$

$\frac{5}{2}$

Draw a ring around the fraction that is equivalent to $2\frac{3}{4}$

[1]

- 30** Here are two circles.
The small circle touches the large circle.
The centre of each circle is marked with a dot.



Not drawn to scale

The length of the diameter of the large circle is 20 centimetres.

Write down the length of the radius of the small circle.

..... centimetres [1]

- 31** Yuri is making a model of his garden.

The fence in his garden is 16 metres long.

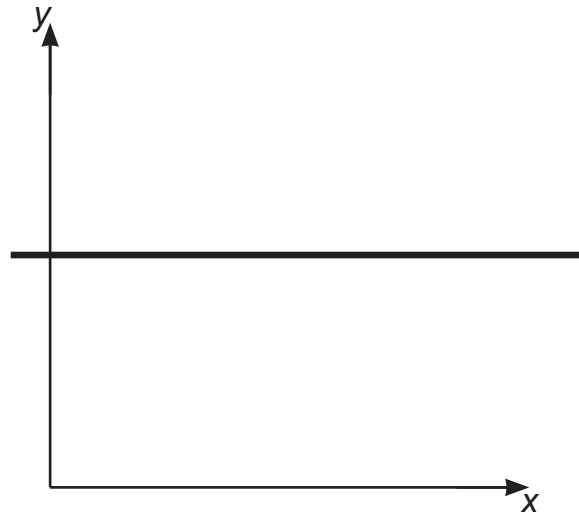
The fence in his model is 80 centimetres long.

The height of the tallest tree in his garden is 6 metres.

Write the height of the tallest tree in his model.

..... centimetres [1]

- 32 A horizontal line is drawn on a coordinate grid.
A point with coordinates (2, 3) is on the line.



Write three **different** coordinates to complete the table.

	Coordinates
Above the horizontal line	(..... ,)
On the horizontal line	(..... ,)
Below the horizontal line	(..... ,)

[1]

33 Anastasia makes a jug of mixed fruit drink.

$\frac{2}{5}$ of the drink is orange juice.

$\frac{3}{8}$ of the drink is apple juice.

The remaining part of the drink is lemon juice.

Work out the fraction of the drink that is lemon juice.

..... [2]

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