



# Mathematics

Stage 5

Paper 2

2022

## Cambridge Primary Progression Test

Name

Class

Date

**45 minutes**

Additional materials: Calculator  
Set square  
Tracing paper (optional)



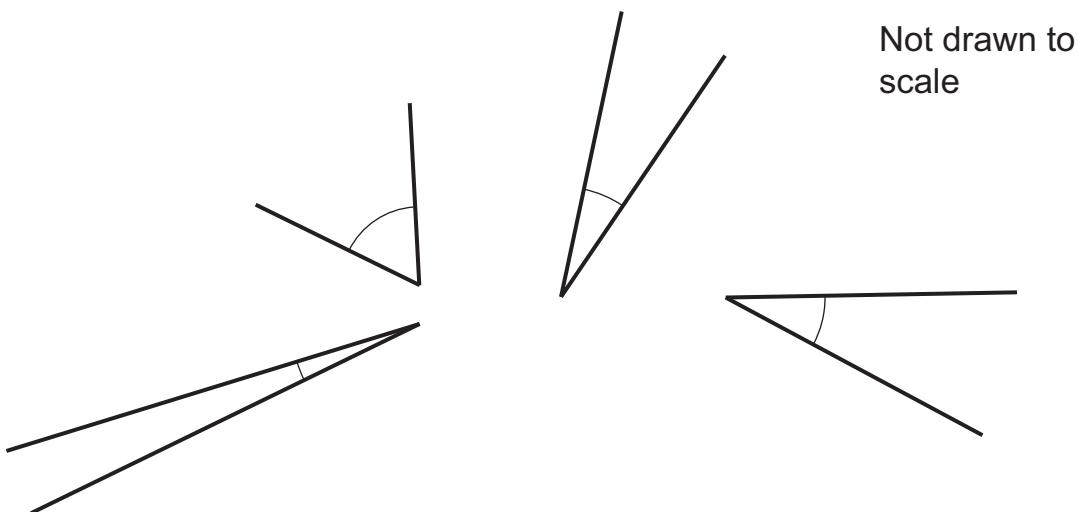
### INSTRUCTIONS

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

- 1 Mike draws these angles.



Not drawn to scale

Tick ( $\checkmark$ ) all the statements about these angles that are true.

They are all less than a right angle.

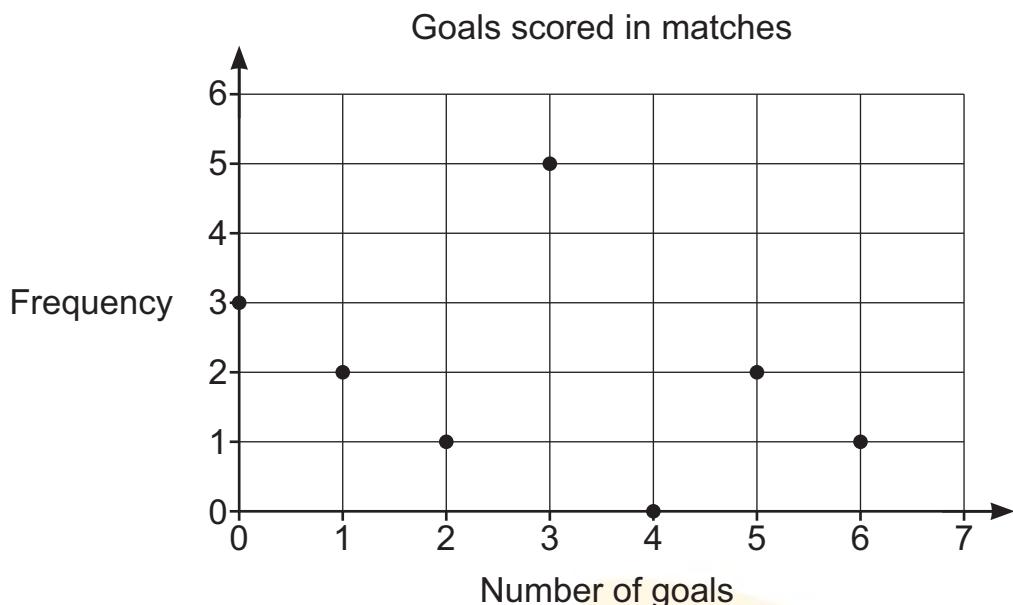
They are all less than 180 degrees.

There are no obtuse angles.

They are all more than a quarter turn.

[1]

- 2 Gabriella collects data about the number of goals scored in matches by her netball team.  
Here are her results.



(a) What was her team's **highest** score?

..... goals [1]

(b) How many times did her team score **no goals**?

..... [1]

- 3 Naomi is counting back in sevens.

Write the next **three** numbers in her sequence.



27, 20, 13, ..... , ..... , .....

[1]

- 4 Lily thinks of a 4-digit number.



My number has 8 ones and 3 thousands.  
The sum of the 4 digits is 12

- (a) Write a number that Lily could be thinking of.

[1]

- (b) Lily multiplies her number by 10 to make a new number.

Write the number of **tens** her new number has.

[1]

- 5 Tick (✓) **all** the events that take less than 1 second.

Eat a bowl of soup

Clap your hands once

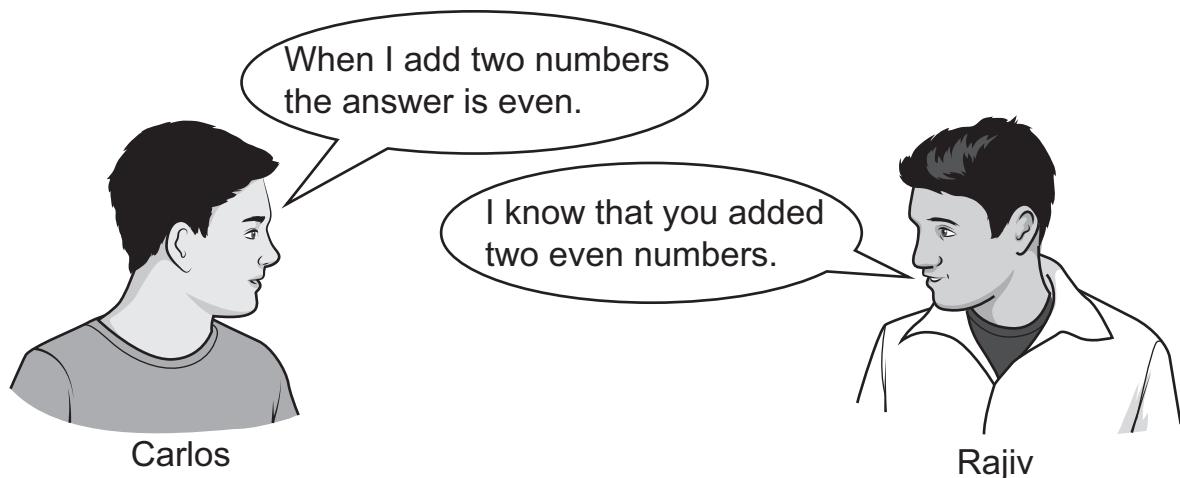
Eat an apple

Say hello

Read a book

[1]

- 6 Carlos and Rajiv are adding numbers.

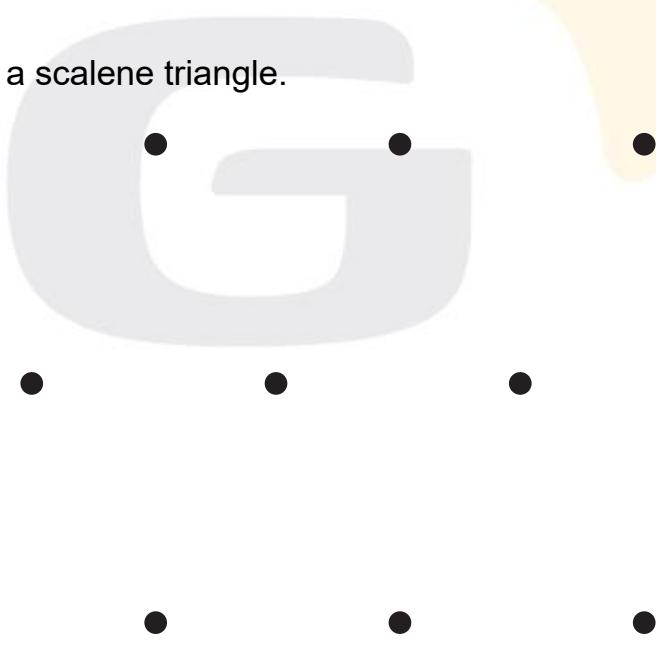


Write a digit in each box to make an addition that shows that Rajiv is **wrong**.

$$\boxed{\phantom{0}} + \boxed{\phantom{0}} = \boxed{\phantom{0}}$$

[1]

- 7 Join dots to draw a scalene triangle.

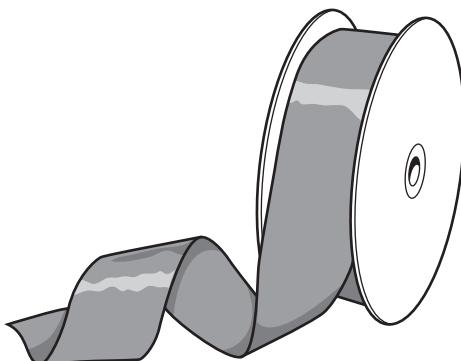


[1]

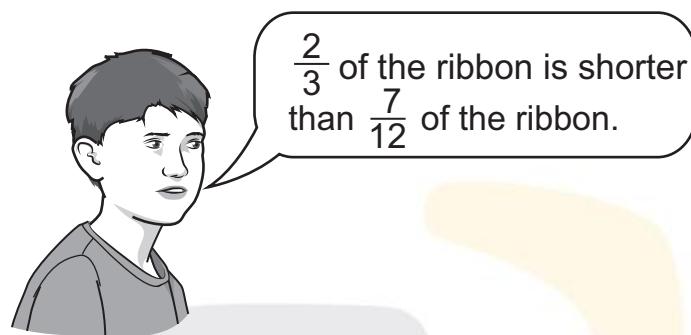
- 8 Write the number that is five-tenths more than 4.79

[1]

- 9 Oliver has a piece of ribbon.



Oliver says,



$\frac{2}{3}$  of the ribbon is shorter  
than  $\frac{7}{12}$  of the ribbon.

Tick (✓) to show if Oliver is correct.

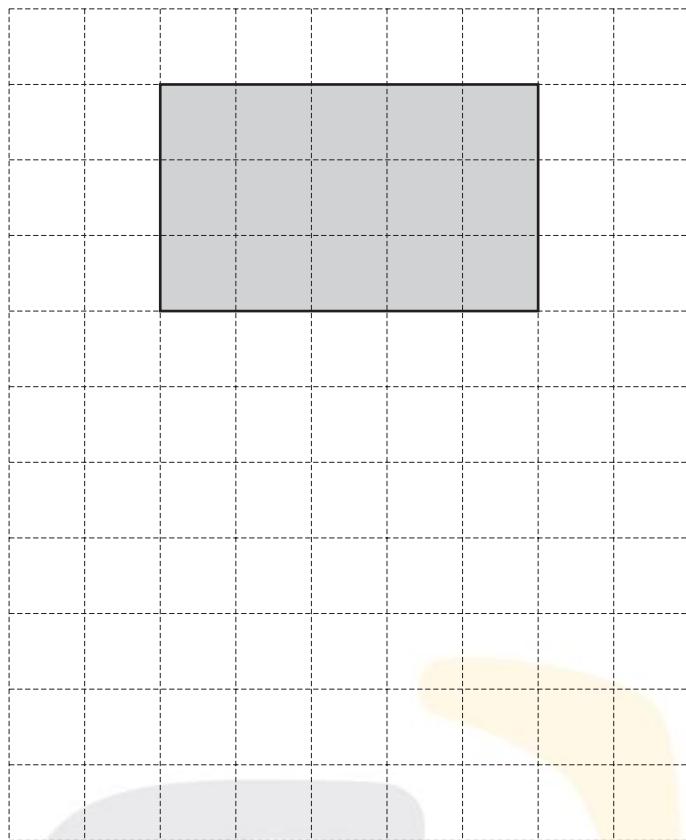
Yes

No

Explain how you know.

[1]

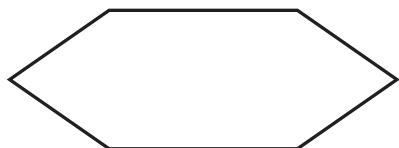
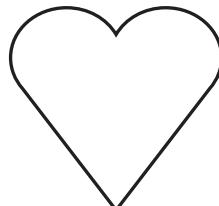
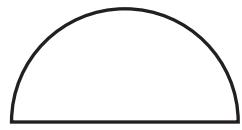
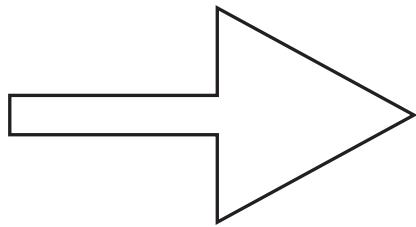
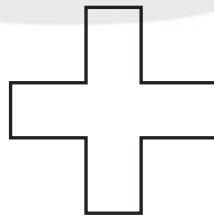
10 Here is a rectangle drawn on a grid of squares.



Draw a square with the same perimeter as the rectangle on the grid.

[1]

11 Write a tick (✓) on each of the shapes that tessellate.



[1]

12 Samira is thinking of a number between –10 and 0



It has 4 hundredths and no tenths.  
The ones digit is 6

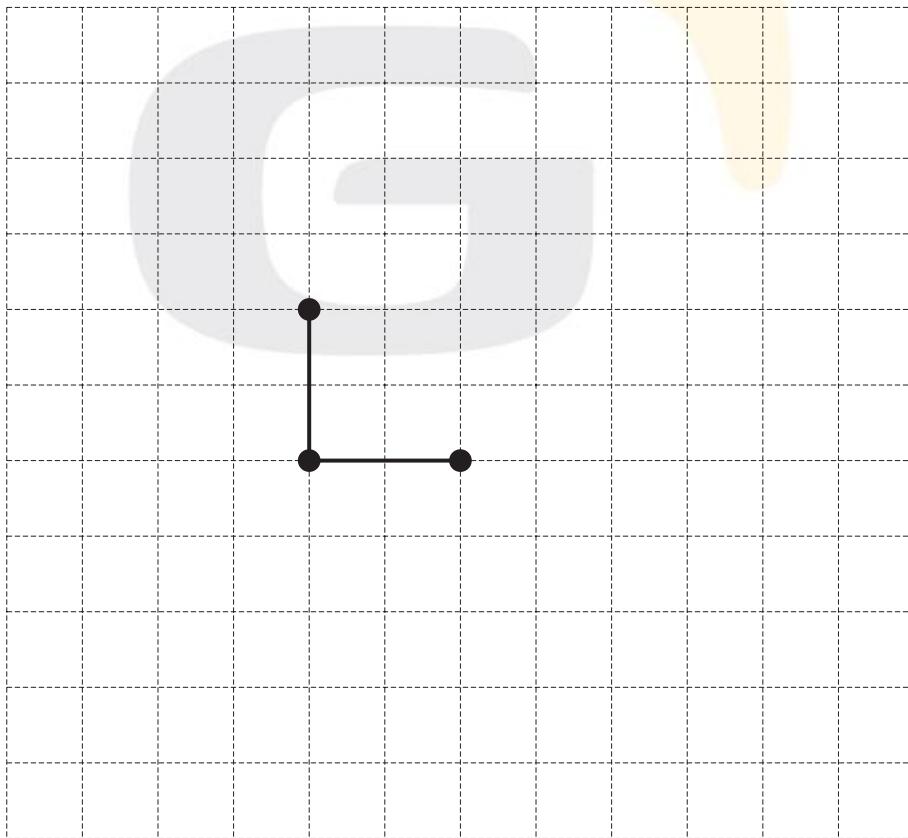
Write down Samira's number as a decimal.

[1]

13 Here are three dots joined by lines to make a shape.

Translate the shape 3 squares down and 2 squares right.

Draw the shape in its new position.



[1]

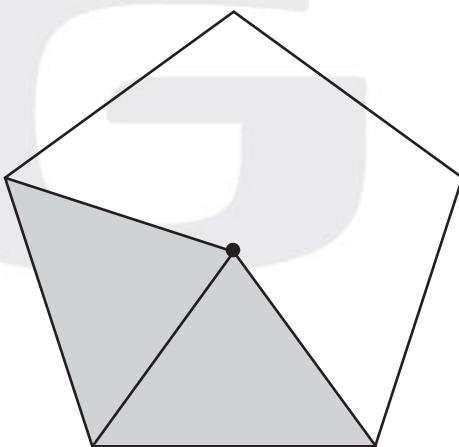
- 14** Hassan rounds some measurements to the nearest centimetre.  
Here are his results.

Write a cross ( $\times$ ) next to all the answers that are **wrong**.

Actual measurement	Measurement rounded to the nearest centimetre	
2.3 cm	2 cm	
1.8 cm	2 cm	
2.6 cm	2 cm	
2.5 cm	2 cm	
1.4 cm	2 cm	

[1]

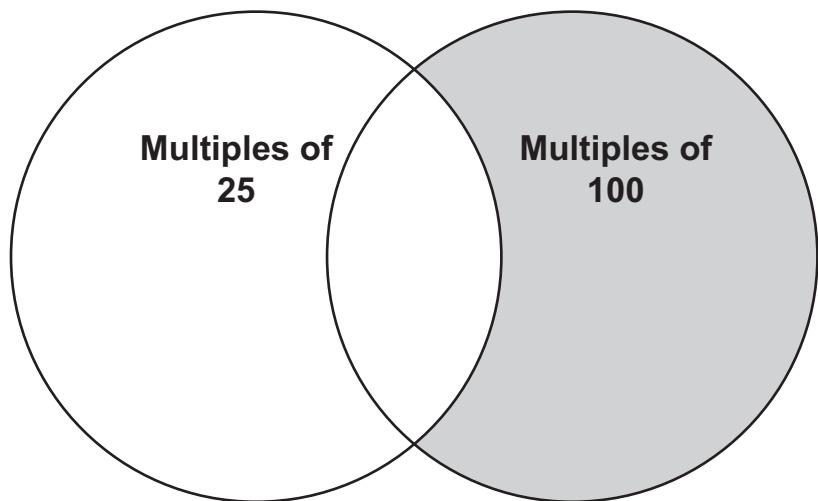
- 15** Here is a regular pentagon.  
The centre is marked with a dot ( $\bullet$ ).



Write the percentage of the shape that is shaded.

% [1]

- 16 Pierre sorts numbers.  
He uses this diagram.  
One section is shaded.

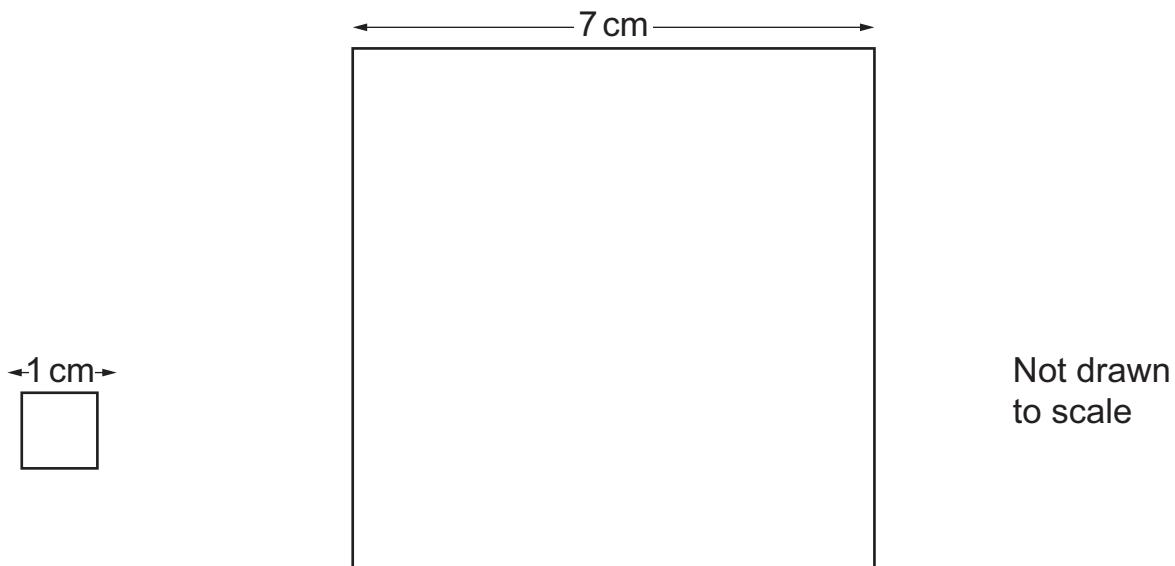


Pierre says,  
'There will **not** be any numbers in the shaded section.'

Explain why Pierre is right.

[1]

- 17 Ahmed draws a small square and a big square.



Ahmed wants to find out how many small squares will fill the inside of the big square.

Tick (✓) each calculation Ahmed could use to find out.

$$7 + 1 \quad \square$$

$$7^2 \quad \square$$

$$7 \times 4 \quad \square$$

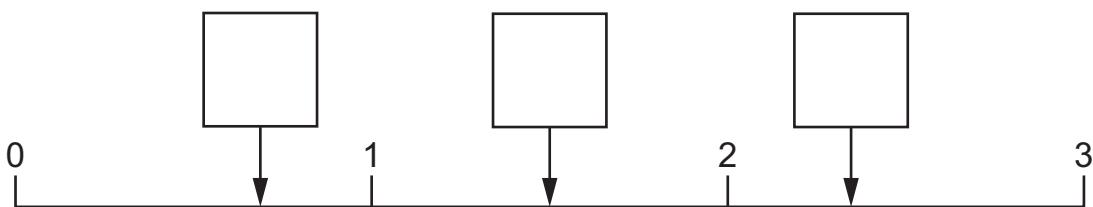
$$7 \times 7 \quad \square$$

$$1 \times 1 \times 7 \quad \square$$

$$7 + 7 \quad \square$$

[1]

18 Here is a number line.



Each box points to a number on the number line.

Write the correct number in each box.

Choose from the number cards.

$\frac{7}{2}$

$\frac{3}{2}$

$\frac{2}{3}$

$2\frac{1}{3}$

$\frac{3}{3}$

[2]

19 Angelique runs for  $\frac{3}{4}$  kilometre and stops for a rest.

Then she runs a further  $\frac{5}{8}$  of a kilometre.

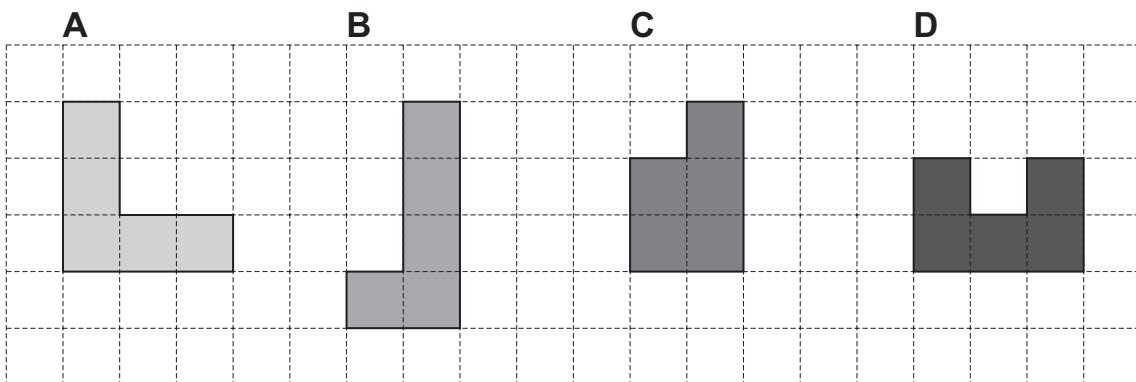
Write the distance Angelique runs altogether.

..... kilometres [1]

**20** Here are four shapes.

Jamilla adds **one** square to a shape to make the net of a closed cube.

Draw a ring around the shape she uses.

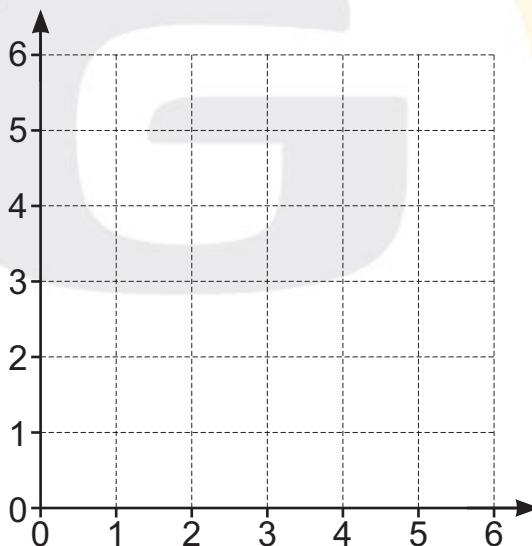


[1]

**21** A square is drawn on a grid.

The coordinates of two of the vertices are  $(0, 3)$  and  $(3, 0)$ .

Write the coordinates of the **other** two vertices of the square.



( ..... , ..... )

( ..... , ..... )

[1]

22 Here is a timetable for trains from Amsterdam to the airport.

Depart	Arrive
09:25	09:38
09:30	09:48
09:53	10:05
10:00	10:18
10:08	10:21
10:11	10:28
10:22	10:35
10:23	10:44

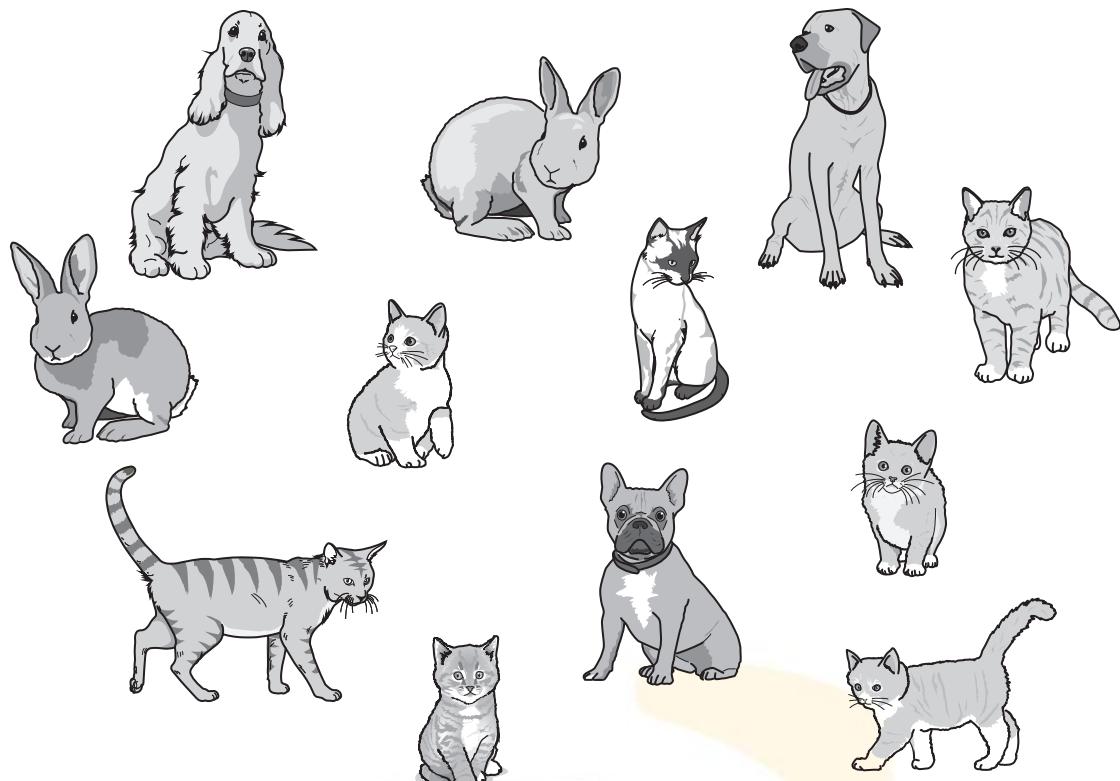
Anastasia's plane leaves at 12:15

She catches the **latest** train that gets her to the airport 2 hours before her flight leaves.

How long is her train journey?

..... minutes [1]

23 Here are the pets of children in Class 5



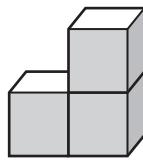
Complete the sentence to describe the proportion of the pets that are dogs.

..... in every ..... pets is a dog. [1]

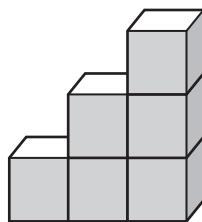
24 Carlos uses bricks to make steps.



He uses 1 brick for the 1st step.



He uses 3 bricks for the 2nd step.



He uses 6 bricks for the 3rd step.

He continues making steps in the same way.

How many bricks will Carlos use for the 6th step?

bricks [1]

25 Here is some information about four children.



Chen	Eva	Mia	Yuri
height: 131 cm	height: 140 cm	height: 132 cm	height: 128 cm
age: 9 years	age: 10 years	age: 9 years	age: 10 years
handspan: 15 cm	handspan: 14 cm	handspan: 15.5 cm	handspan: 12.5 cm
foot length: 20 cm	foot length: 19 cm	foot length: 22 cm	foot length: 20 cm

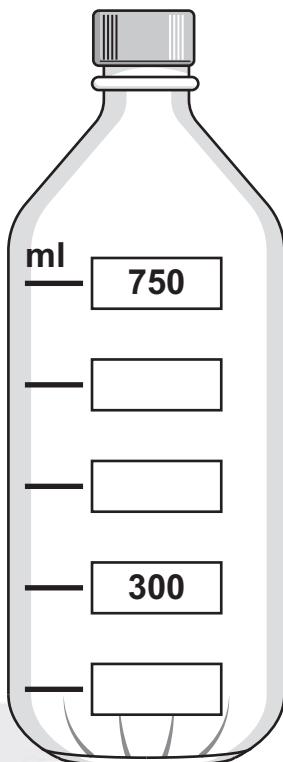
Write the names of the four children in the correct place on the Carroll diagram.

	Height is exactly 6 times the foot length	Height is not exactly 6 times the foot length
Taller than 130 cm		
Not taller than 130 cm		

[2]

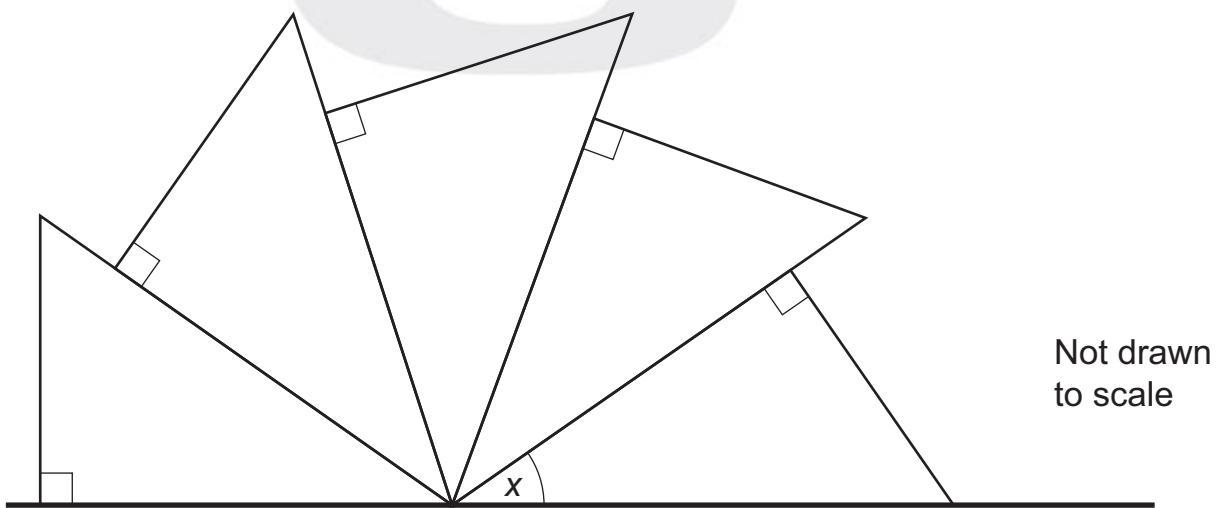
**26** Naomi labels the scale on this bottle.

Write the correct number on each label.



[1]

**27** Five **identical** triangles are placed on a straight line.

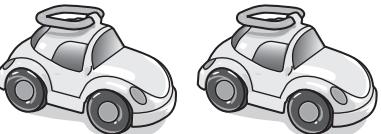


Calculate the size of angle  $x$ .

$$x = \underline{\hspace{2cm}}^\circ [1]$$

28 Oliver and Mike buy some items at the school fair.

This table shows the items they buy and the money they spend.

	Items they buy	Money they spend
Oliver		\$8
Mike		\$10

(a) How much does **one** ball cost?

\$ ..... [1]

(b) The price of the car in dollars is represented by



The price of the ball in dollars is represented by



Tick (✓) the expression that shows how Mike spends his money.

$$\text{○} + \text{○} + \text{○} = \$10 \quad \square$$

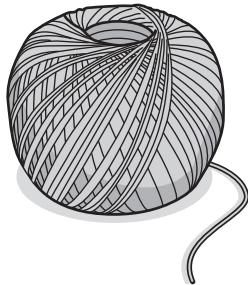
$$\star + \star + \star = \$10 \quad \square$$

$$\text{○} + \text{○} + \star = \$10 \quad \square$$

$$\star + \star + \text{○} = \$10 \quad \square$$

[1]

29 Youssef has a ball of string and a parcel.



He uses  $\frac{1}{5}$  of his string to tie a parcel.

He uses 48 cm of string.

(a) Write the length of string that Youssef has left in centimetres.

..... cm [1]

(b) Write the length of string that Youssef has left in metres.

..... m [1]

30 Safia has some number cards.

 A small rectangular box containing the number 1.

 A small rectangular box containing the number 2.

 A small rectangular box containing the number 1.

 A small rectangular box containing the number 2.

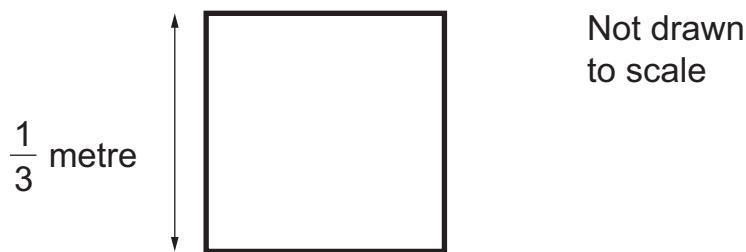
She chooses **two** of the cards to make this statement correct.

Write a number in each box to show which cards Safia chooses.

$$\boxed{\phantom{0}} \quad 0\% < \frac{\boxed{\phantom{0}}}{5} < 0.3$$

[1]

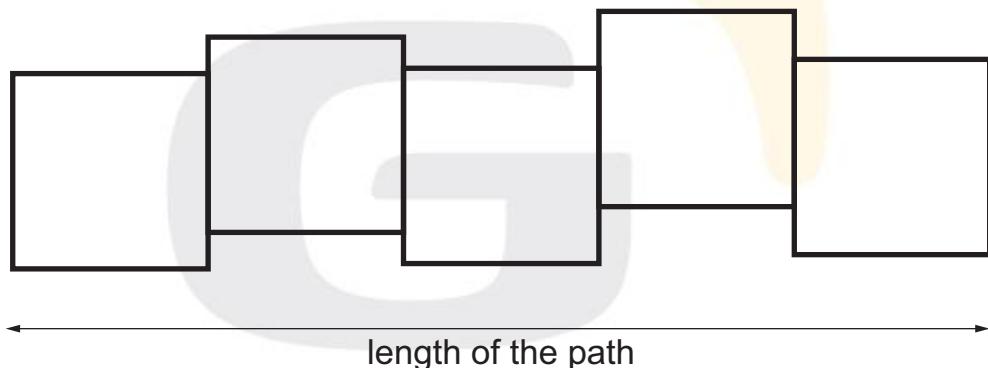
- 31 A square paving slab has a side length of  $\frac{1}{3}$  metre.



- (a) What is the perimeter of the paving slab?

..... metres [1]

- (b) Rajiv joins five paving slabs to make a path.



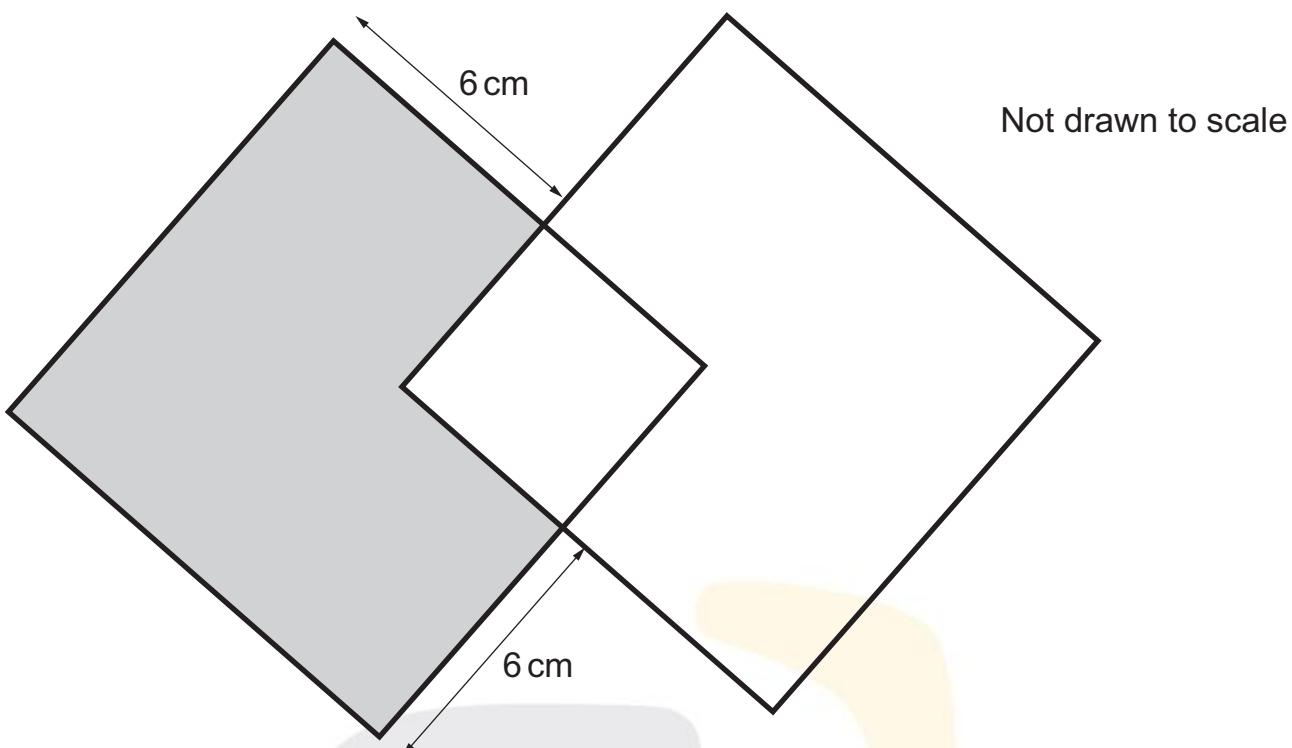
What is the length of the path?

..... metres [1]

**32** Samira has two squares.

The area of each square is  $100 \text{ cm}^2$ .

She overlaps the two squares.



Calculate the shaded area.

.....  $\text{cm}^2$  [2]

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