Year 5
PAPER
3

Reasoning

Instructions

You **may not** use a calculator to answer any questions in this test.

Questions and answers

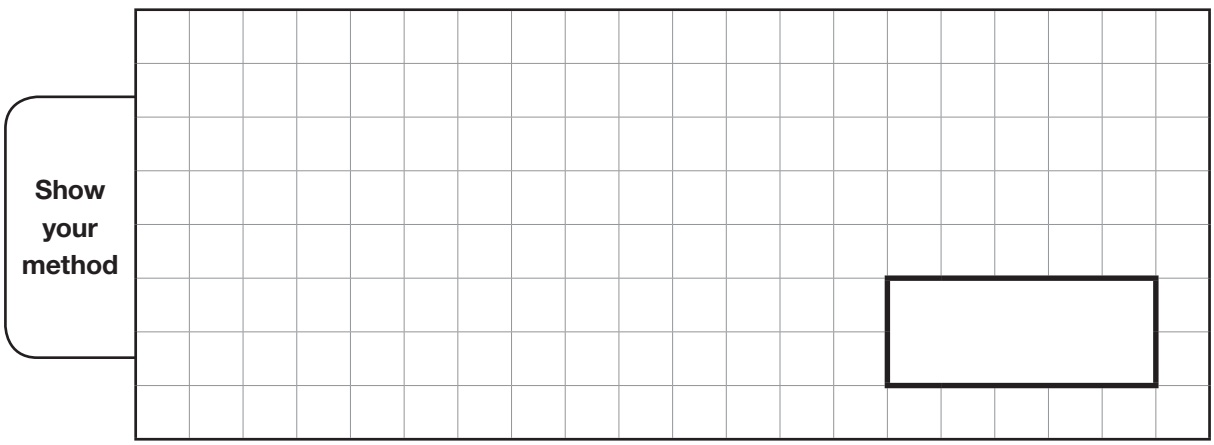
You have **40 minutes** to complete this test.

Follow the instructions for each question.

Work as quickly and as carefully as you can.

If you need to do working out, you can use the space around the question.

Some questions have a method box like this:



For these questions you may get a mark for showing your method.

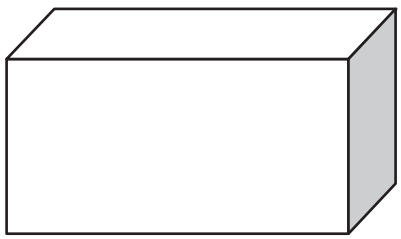
If you cannot do one of the questions, **go to the next one.**
You can come back to it later, if you have time.

If you finish before the end, **go back and check your work.**

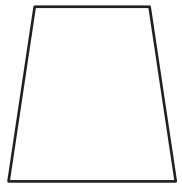
Marks

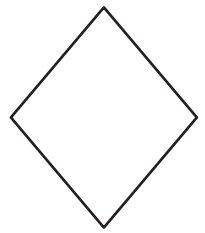
The number under each line at the side of the page tells you the maximum number of marks for each question.

1 One face of the 3-D shape is shaded.



Tick (✔) the shape that matches the shaded face.





1 mark

2 Write the missing number in the box.

$$1\ 701\ 004 = 1\ 000\ 000 + \boxed{700\ 000} + 1000 + 4$$

1 mark

3 Write the number six hundred and six thousand and sixty-six in digits.

606 066

1 mark

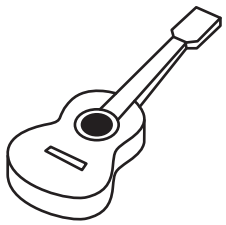
4

drum

£5.75

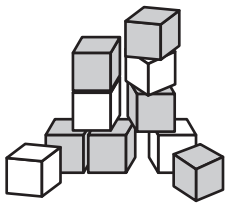
teddy

£3.85



guitar

£5.15



toy bricks

£4.25

toy car

£4.05

Emma chooses 2 toys from a toy shop.

She spends £9

Which 2 toys does she buy?

teddy and guitar

1 mark

Edward buys a toy car.

How much change does he receive from £5?

95p or £0.95

1 mark

5 Write the missing numbers in the boxes.

1 mark

1 mark

6 Here are four lengths.

3 m 7 cm 360 cm 3·4 m $3\frac{1}{2}$ m

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

3 m 7 cm	3·4 m	$3\frac{1}{2}$ m	360 cm

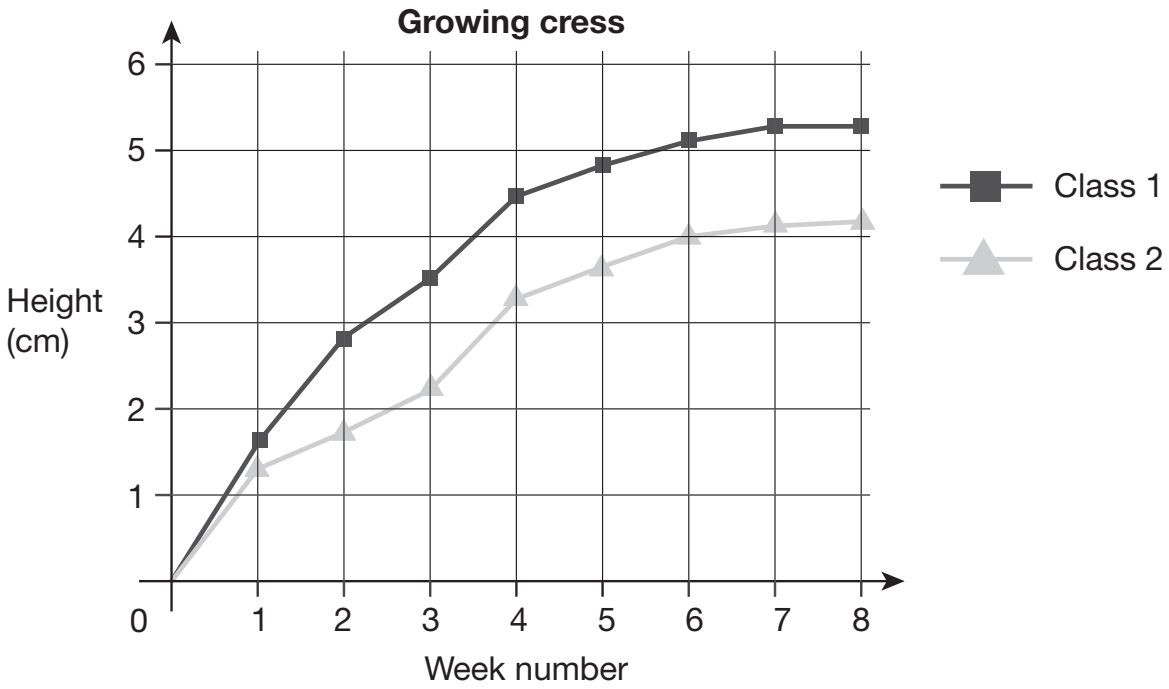
1 mark

smallest largest

7 Two classes each grew some cress.

They measured the height every week.

The results are shown on the line graph.



How tall was the cress grown by Class 2 after 6 weeks?

4 cm

1 mark

After 8 weeks approximately how much taller was the cress grown by Class 1 than Class 2?

1 cm

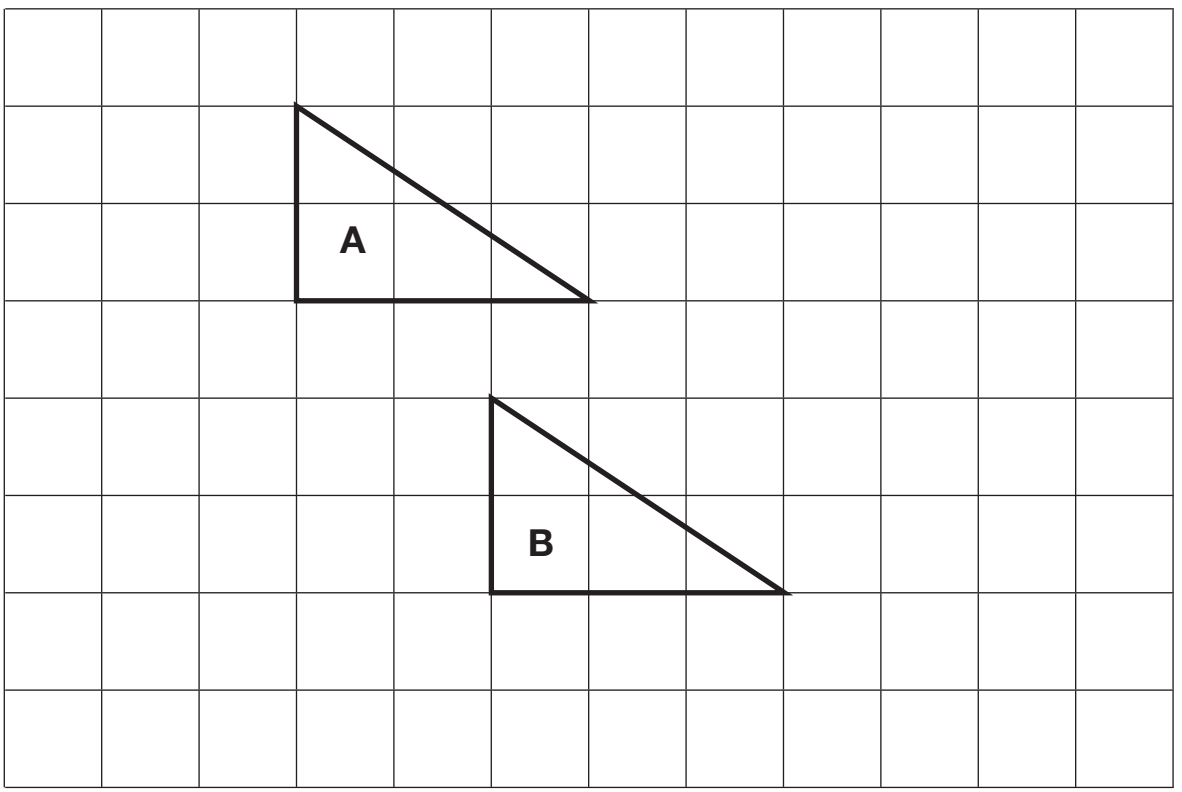
1 mark

8 Complete the sequence of the **first 5 prime numbers**.

2	3	5	7	11

1 mark

9 Two triangles **A** and **B** are drawn on a square grid.

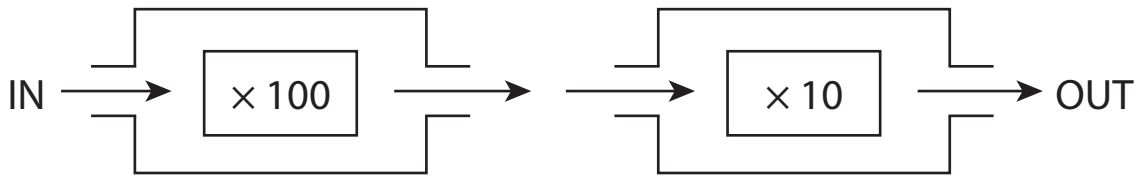


Describe the translation which moves triangle **A** to triangle **B**.

RIGHT 2 DOWN 3

1 mark

10 Two function machines are placed next to each other.

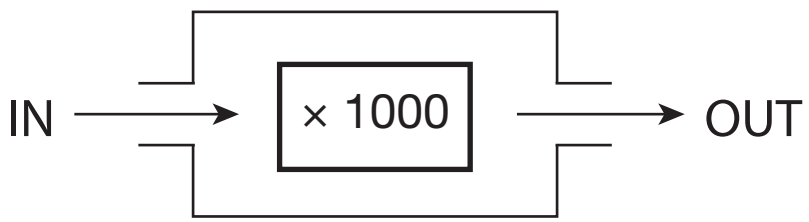


Write the missing number.

In	Out
3	3000
12	12 000
5·4	5400

1 mark

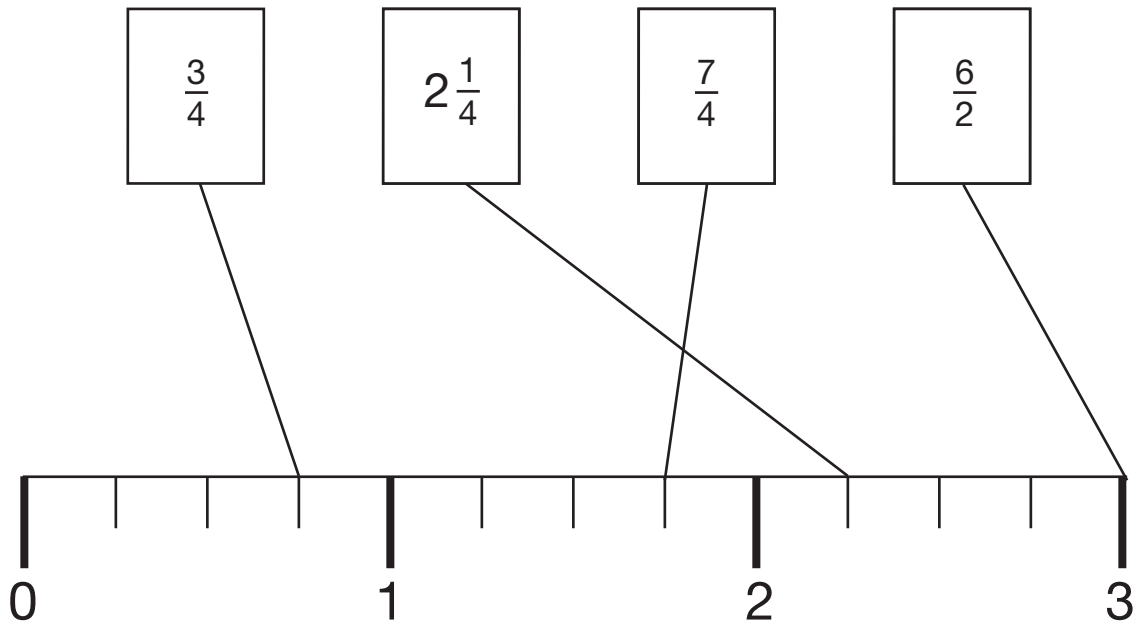
Write the two functions as a **single function** in this function machine.



1 mark

11 Join each fraction to its place on the number line.

One has been done for you.



2 marks

12 Harper thinks of a four-digit number.

It is a multiple of 100

The hundreds digit is a square number.

The thousands digit is a cube number.

The thousands digit is twice the hundreds digit.

What is the number?

8	4	0	0

1 mark

13 Write the missing numbers.

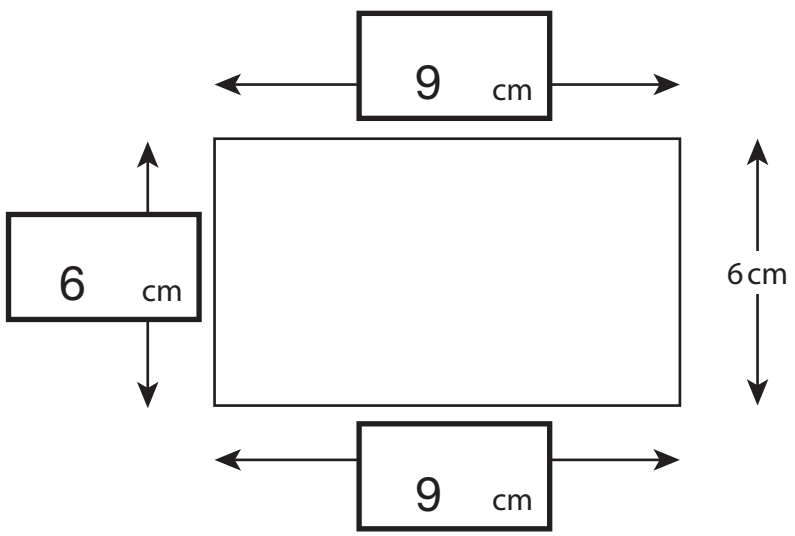
	Rounded to a **whole number**	Rounded to **one decimal place**
2·14	2	2·1
5·67	6	5·7

2 marks

14 A rectangle has a **perimeter of 30 cm**

One side length is 6 cm

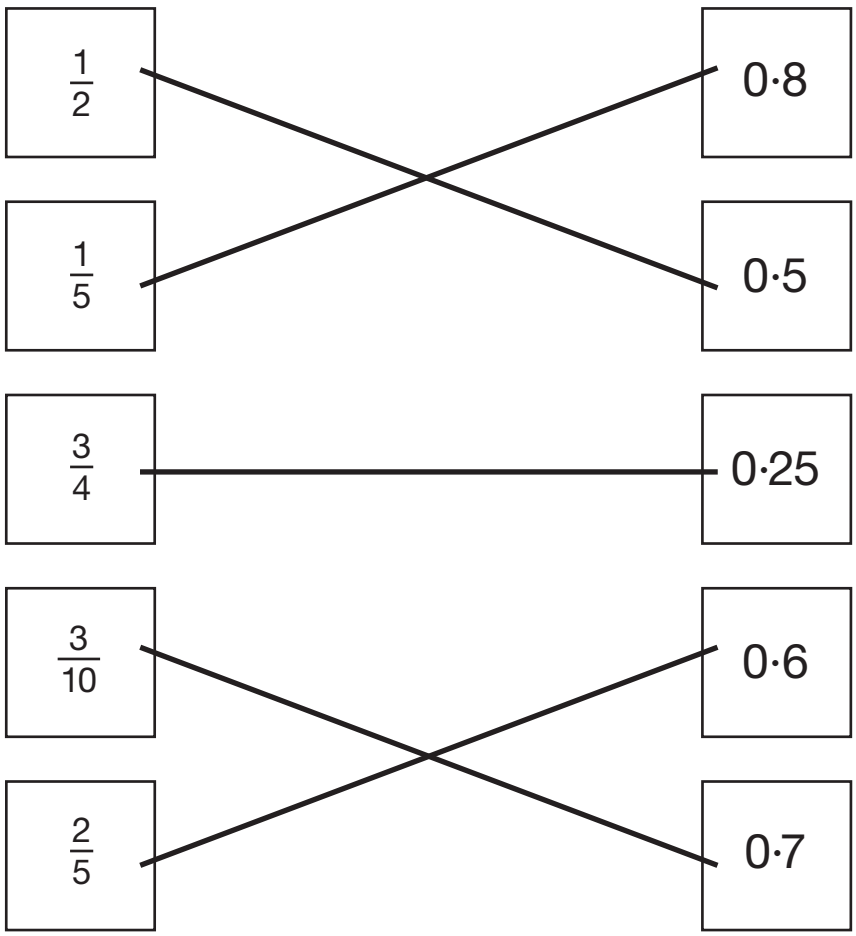
Write the missing lengths of the rectangle.



2 marks

15 Match each fraction to a decimal to make a total of 1

One has been done for you.



2 marks

16 Write the missing numbers to complete the calculations.

30 × 40 = 12 × 100

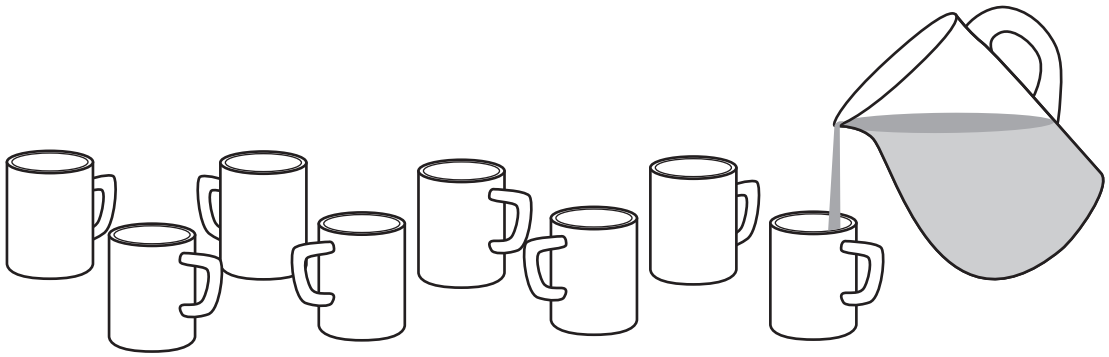
1 mark

43 × 12 = 430 + 86

1 mark

17 A jug of juice holds 1 litre.

The jug can fill 8 mugs exactly.



What is the capacity of one of the mugs?
Give your answer in millilitres.

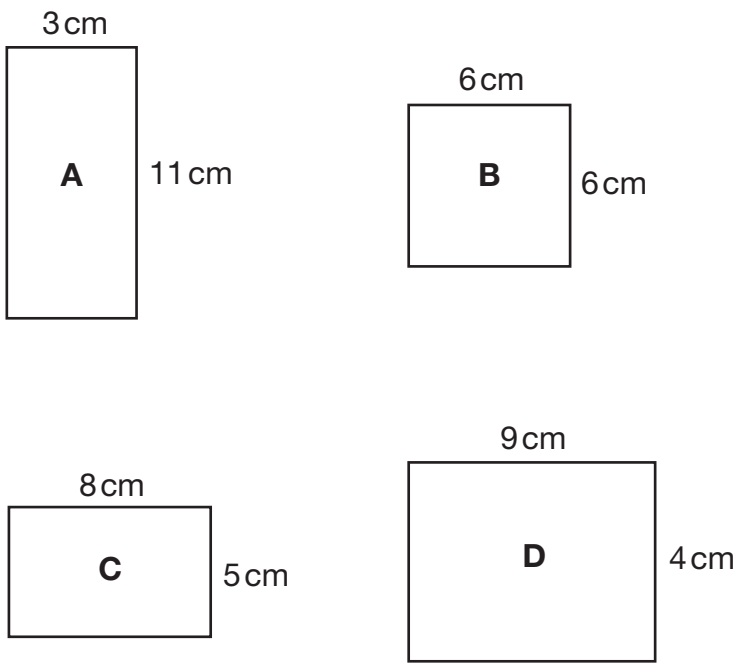
Show your method

125 ml

2 marks

18 Write the letters of the shapes that have the **same area**.

Not drawn to scale.



B and D

1 mark

19 8000 people attended a concert, rounded to the nearest thousand.

Circle the number that could **not** be the exact attendance.

8200 7486 8473 7745 8005

1 mark

20 A sheet of stickers has 15 rows and 12 columns.

A teacher has 32 children in the class.

Each child is given 3 stickers each.

How many stickers are left on the sheet?

Show your method

84

2 marks

21 $\frac{5}{6}$ of the shape is shaded.

Use the diagram to help you find $\frac{5}{6} \times 3$

$\frac{15}{6}$

1 mark

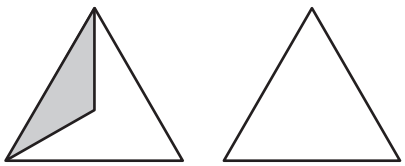
22 Write **seven halves** as a decimal.

3·5

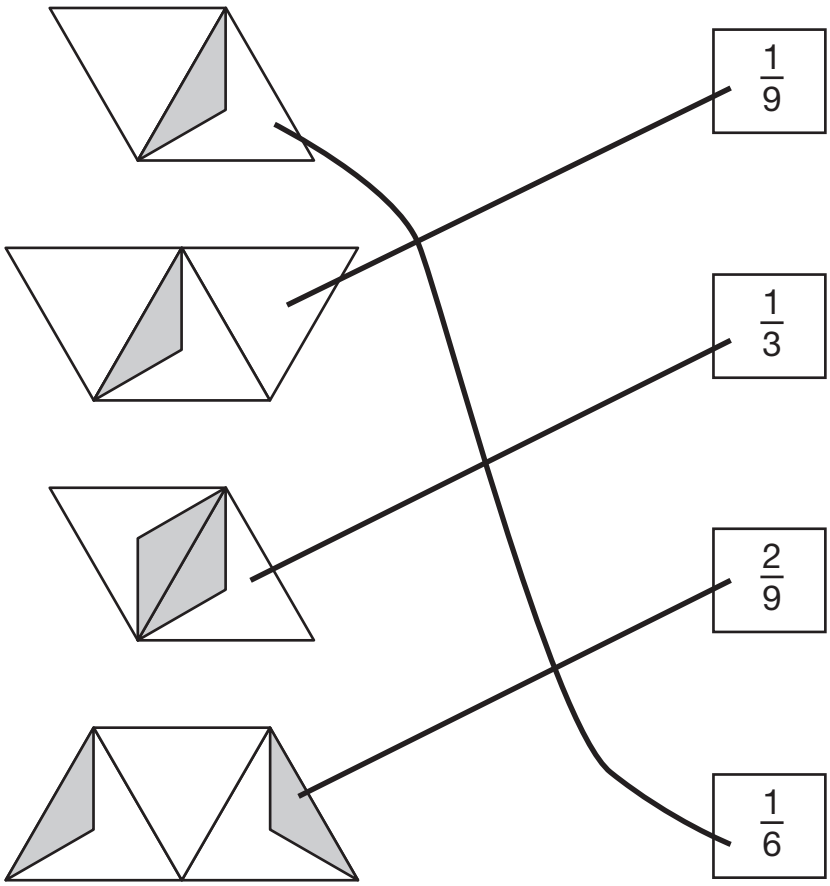
1 mark

23 Jamie is designing patterns made from triangles.

He has some triangles that have $\frac{1}{3}$ shaded and some triangles that are all white.



Match each pattern to the fraction it has shaded.



2 marks