Year 4

Mathematics

Paper 2: reasoning and problem solving

First name						
Middle name						
Last name						
Date of birth	Day		Month		Year	
Teacher						

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Instructions

You **may not** use a calculator to answer any questions in this paper.
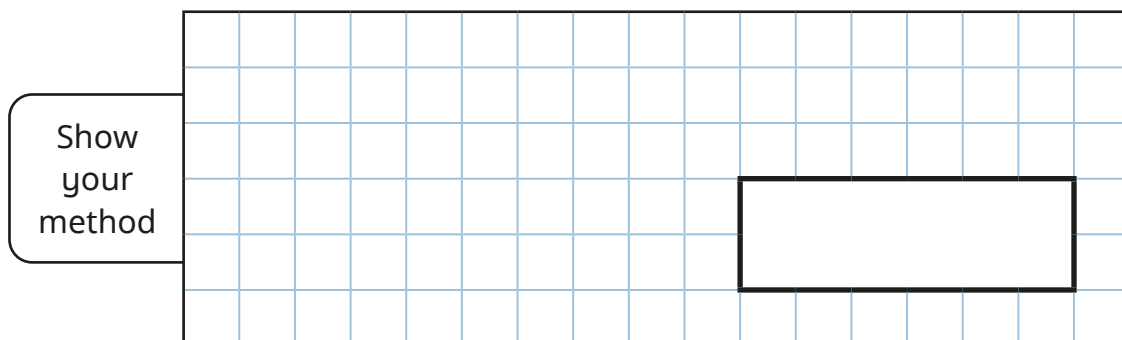
Questions and answers

You have **50 minutes** to complete this paper.

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:

Show your method

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

If you cannot do one of the questions, **go on to the next one**.

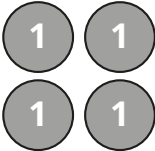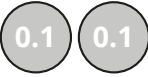You can come back to it later, if you have time.

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.

Tommy makes this number.

Ones		Tenths	Hundredths
① ① ① ①		0.1 0.1	

What number has Tommy made?

Tommy adds these counters to the place value chart.
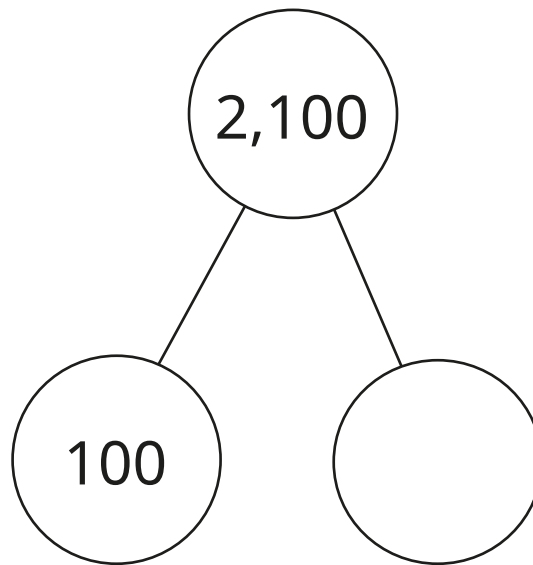
0.01 0.01 0.01 0.01 0.01

What number has Tommy made now?

1 mark

2 Complete the part-whole models.

2,100

100

$5\frac{2}{3}$

5
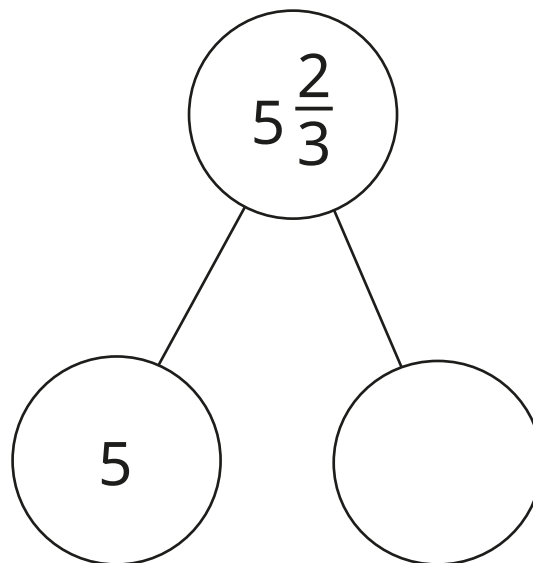
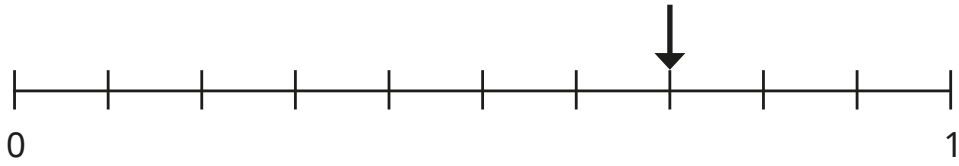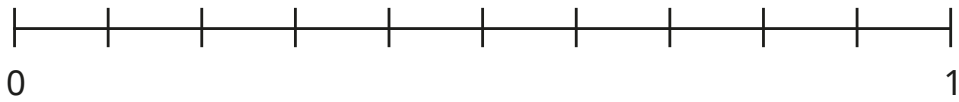**3** What fraction is the arrow pointing to?
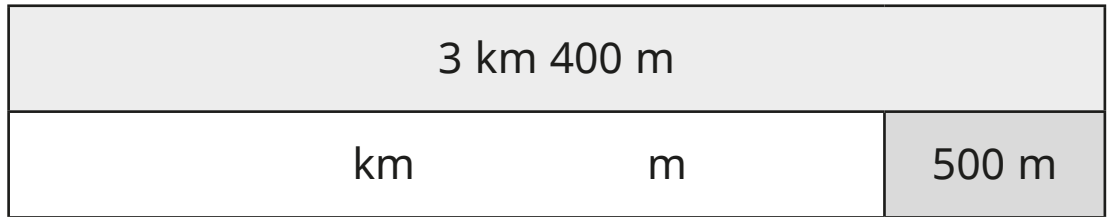

0   1

[   ]

Draw an arrow to 0.3 on the number line.

0   1

4 Complete the bar model.

3 km 400 m		
km	m	500 m

1 mark

5 Draw lines on the bar model to show that $\frac{2}{3}$ is equivalent to $\frac{4}{6}$

1 mark

6 Complete the number sentence.

$9 \times 8 = 10 \times 8 - $ ☐

7 Whitney is dividing this number by 100

Thousands	Hundreds	Tens	Ones
◯	◯ ◯		

Draw counters to show her answer.

Thousands	Hundreds	Tens	Ones

8 List **all** the factors of 8

_____

1 mark

9 Circle the number that is divisible by **both** 5 and 7

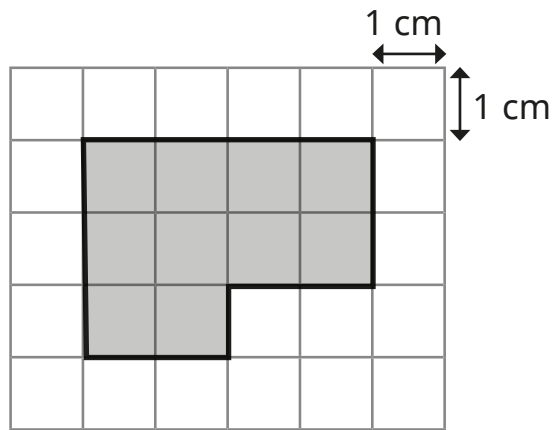**140**   **145**   **170**

1 mark

10 Write 12 hundredths as a decimal.

11 Here is a shape.

1 cm

1 cm

Work out the area of the shape.

cm²

Work out the perimeter of the shape.

cm

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12 Mo is using place value counters to work out a division.

Tenths	Ones
10	1 1 1
10	1 1 1
10	1 1 1
10	1 1 1

Circle the division that Mo has worked out.
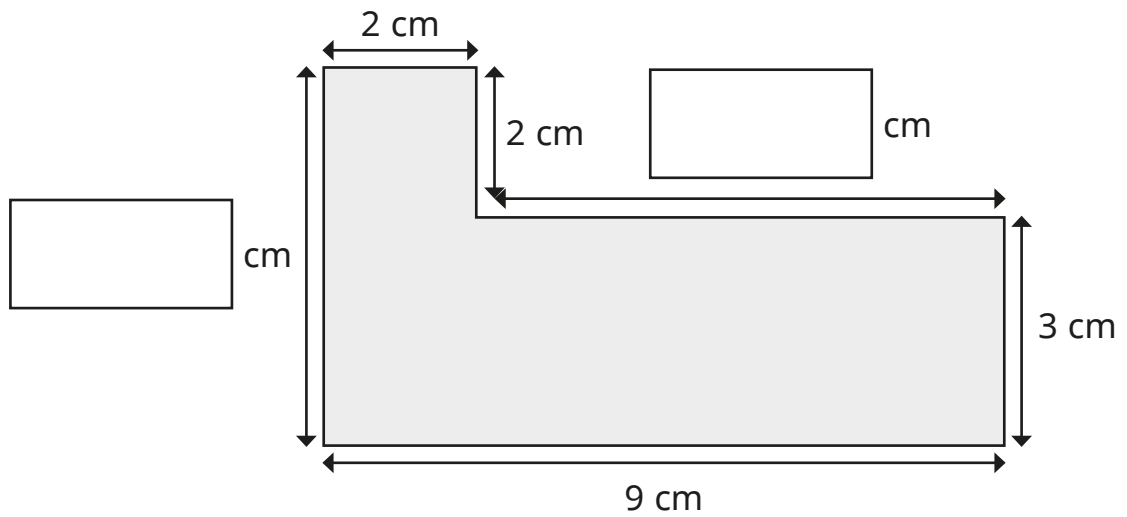
$13 \div 4$ $31 \div 4$ $48 \div 4$ $52 \div 4$

1 mark

13 Complete the function machine.

input   output

12

$\times 10$

8

2 marks

14

2 cm

2 cm

cm

3 cm

9 cm
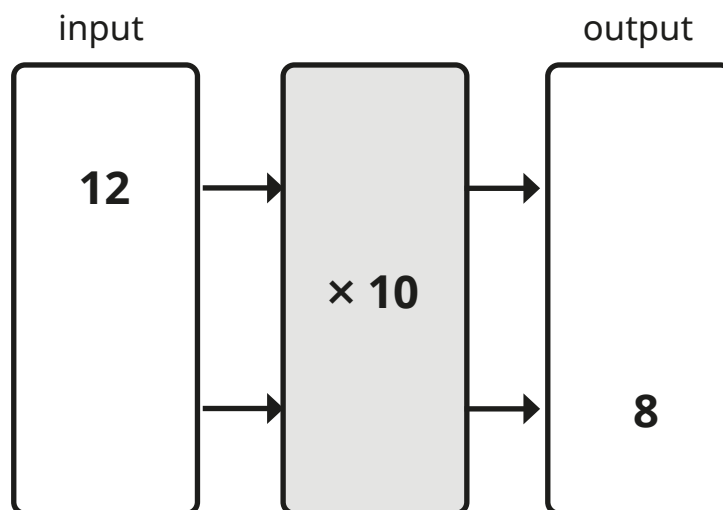
Fill in the missing lengths.

1 mark

Work out the perimeter of the shape.

cm

1 mark

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

$$\frac{8}{5} - \frac{\boxed{}}{5} = 1$$

$$2 < \frac{\boxed{}}{5} < 3$$

16 Write a digit to make the statement correct.

$$3.\underline{}7 > 3.78$$

17 Complete the number track.

	2			2.03	2.04

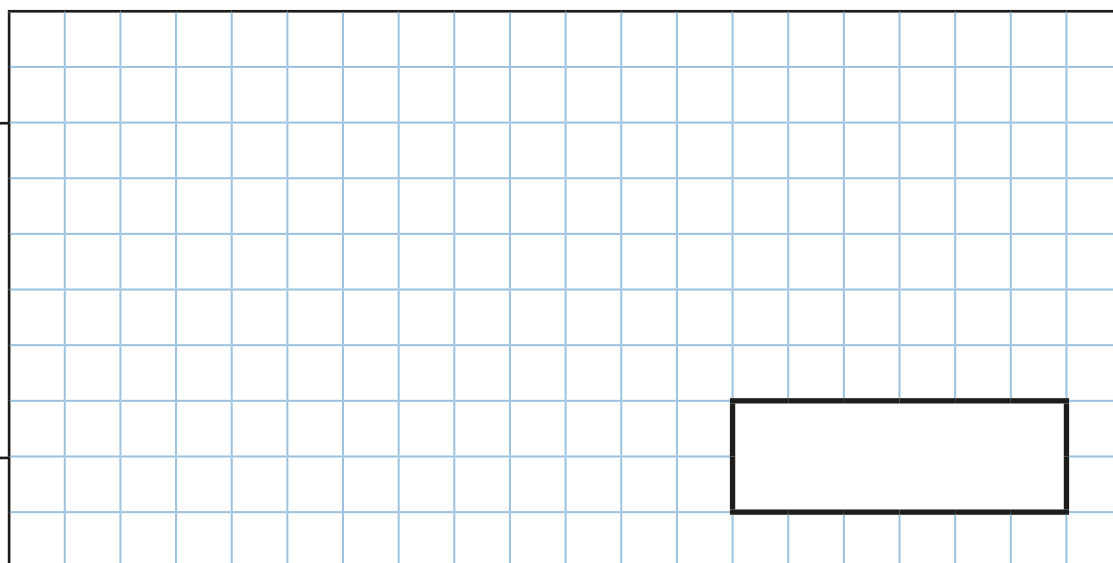**18** Annie and Teddy are washing cars for charity.

They make £5 for every car they wash.

Annie makes £60

Teddy washes three more cars than Annie.

How many cars did they wash altogether?

Show your method

19 4 pizzas are each cut into 6 equal slices.

Jack and Rosie both eat 5 slices of pizza.

How much pizza is left?

Give your answer as a mixed number.

2 marks

20 Eva rounds a number to the nearest 1,000 and gets 5,000

Amir rounds a number to the nearest 100 and gets 5,600

Amir says that his number must be greater than Eva's.

Do you agree with Amir?

Circle your answer.

Yes   **No**

Explain your answer.

1 mark

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