

Progress check

# Year 5

## Mathematics

### Paper 2: reasoning and problem solving

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

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These assessments have been designed by the White Rose Maths Hub.  
For more information, please visit [www.whiterosemathshub.co.uk](http://www.whiterosemathshub.co.uk)

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# Instructions

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

## Questions and answers

You have **35 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:**

Diagram illustrating a method box. The box is a grid of 20 columns and 10 rows. A label 'Show your method' is positioned to the left of the grid. A smaller rectangle, representing the method box, is located within the grid, spanning 10 columns and 2 rows.

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.

1

Fill in the boxes to make the statement true.

$$\frac{9}{10} = \boxed{\phantom{00}}\% = 0.\boxed{\phantom{00}}$$

---

1 mark

2

Caroline has the following number

**13.287**

She adds **3 tenths** to her number.

What is Caroline's new number?

---

1 mark

3

Write these decimals as fractions.

0.84

=

0.1

=

0.25

=

2 marks

4

Use  $<$ ,  $>$  or  $=$  to make the statements true.

$$\frac{1}{2} \quad \bigcirc \quad \frac{3}{4}$$

$$\frac{4}{6} \quad \bigcirc \quad \frac{8}{12}$$

$$\frac{2}{3} \quad \bigcirc \quad \frac{5}{9}$$

2 marks

**5**Shade in  $\frac{2}{5}$  of the shape.

1 mark

**6**

Write a digit in each box so that both decimals round to 5.

4.  75.  1

1 mark

Fill in the boxes.

1 mark

Jobe is taking part in a long jump event.

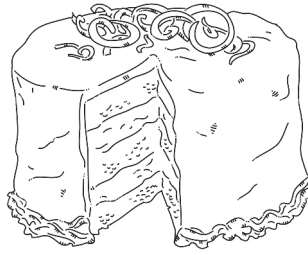


## How far did Jobe jump?

1 mark

9

Andy has  $\frac{11}{12}$  of a cake.



He eats  $\frac{1}{3}$  of it.

How much cake is left?

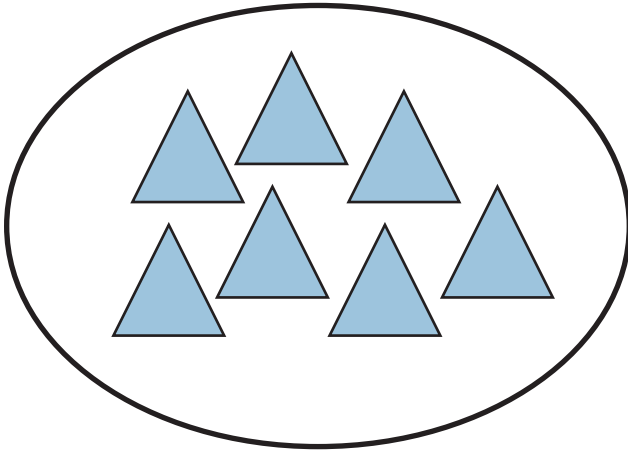
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1 mark



10

Rashid is asked to circle  $\frac{1}{6}$  of the triangles he is given.  
Here are the triangles he circled.



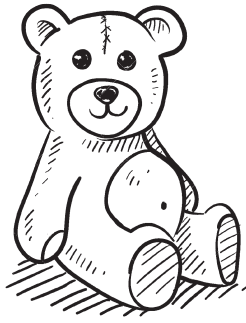
He circled the correct amount.

How many triangles did he begin with?

1 mark

11

At a toy factory, every worker has to make 1,600 teddies a day.



On Monday, Clive makes  $\frac{2}{5}$  of the amount needed.

On Tuesday, Clive makes  $\frac{4}{5}$  of the amount needed.

How many teddies did he make altogether on Monday and Tuesday?

Show  
your  
method

[illegible]

2 marks

12

Marla spends  $\frac{2}{7}$  of her weekly wage on a £120 bag.



How much does she earn in a week?

Show  
your  
method

[illegible]

2 marks

**13**

Here are three number cards.

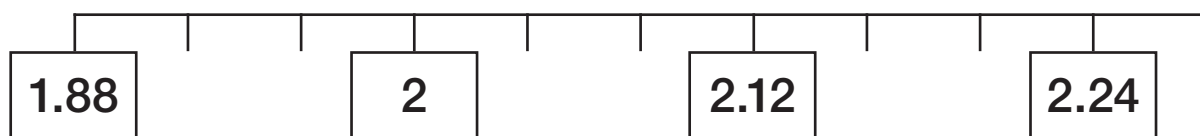
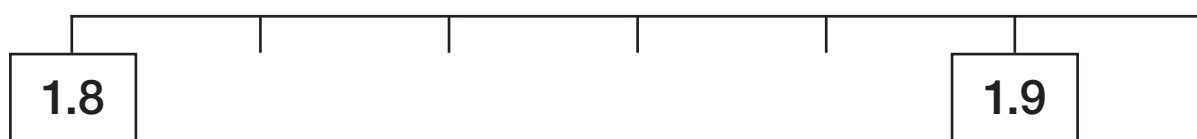
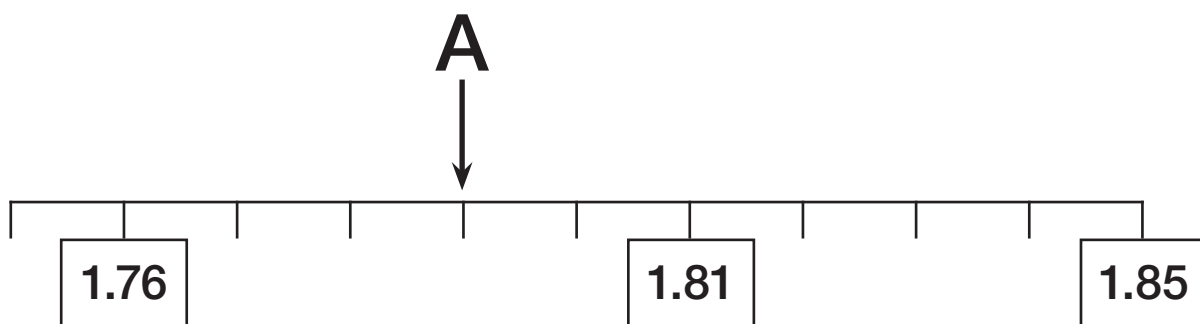
Card A has been placed on a number line.

Place B and C on the other number lines.

<b>A</b>
<b>1.79</b>

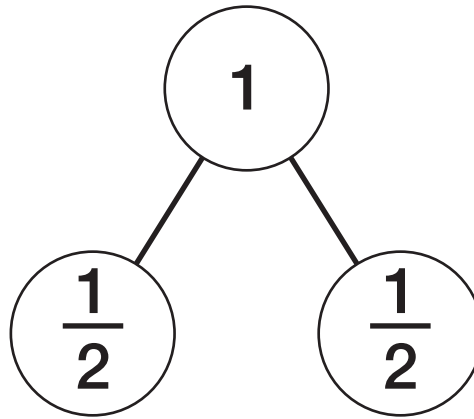
<b>B</b>
<b>1.86</b>

<b>C</b>
<b>2.18</b>



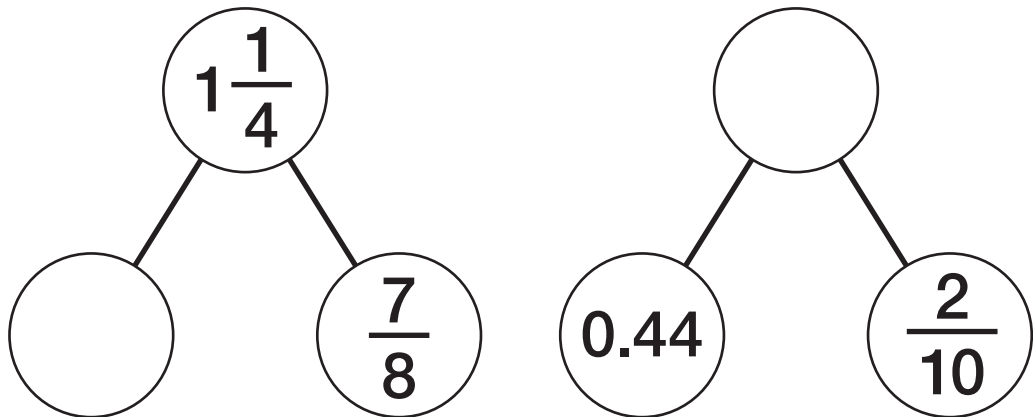
2 marks

Here is a part – whole diagram.

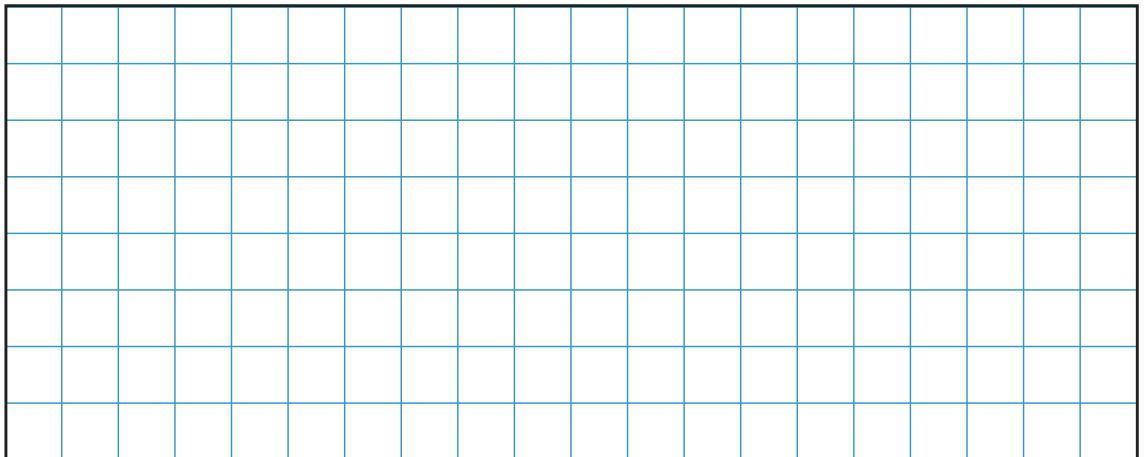


The two numbers in the bottom circles add to make the number in the top circle.

Complete the missing values in the diagrams.



You may use the space below for your calculations.



2 marks

15

Fill in the missing number.

$$\frac{3}{4} - \frac{\boxed{\phantom{000}}}{8} = \frac{1}{2}$$

1 mark

16

Tick (✓) the statements that are true.

$4.008 < 4.08$

☐

$3.549 > 3.55$

☐

$2.46 > 2.064$

☐

1 mark

17

What number is half way between 3.8 and 4.3?

1 mark

18

Paul has 36 sweets.

On Friday, he eats  $\frac{1}{4}$  of his sweets and gives 2 to his sister.

On Saturday, he eats  $\frac{1}{5}$  of the remaining sweets and gives one to his mum.

How many sweets does Paul have left?

Show  
your  
method

2 marks

Here are the prices of cinema tickets.

1 adult ticket = £6.25

1 child ticket = £3.75

A family ticket for 2 adults and 2 children costs £22.50

Zara says:



Do you agree?

Circle your answer

**Yes**

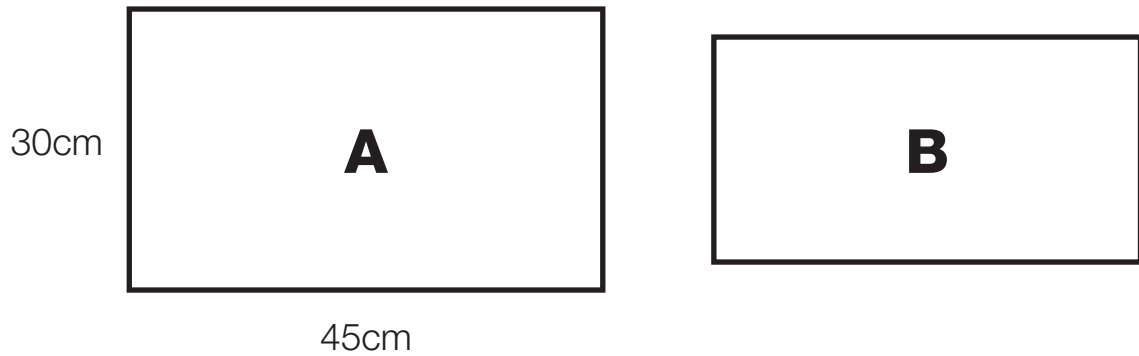
**No**

**Explain** your answer.



20

Here are two rectangles.

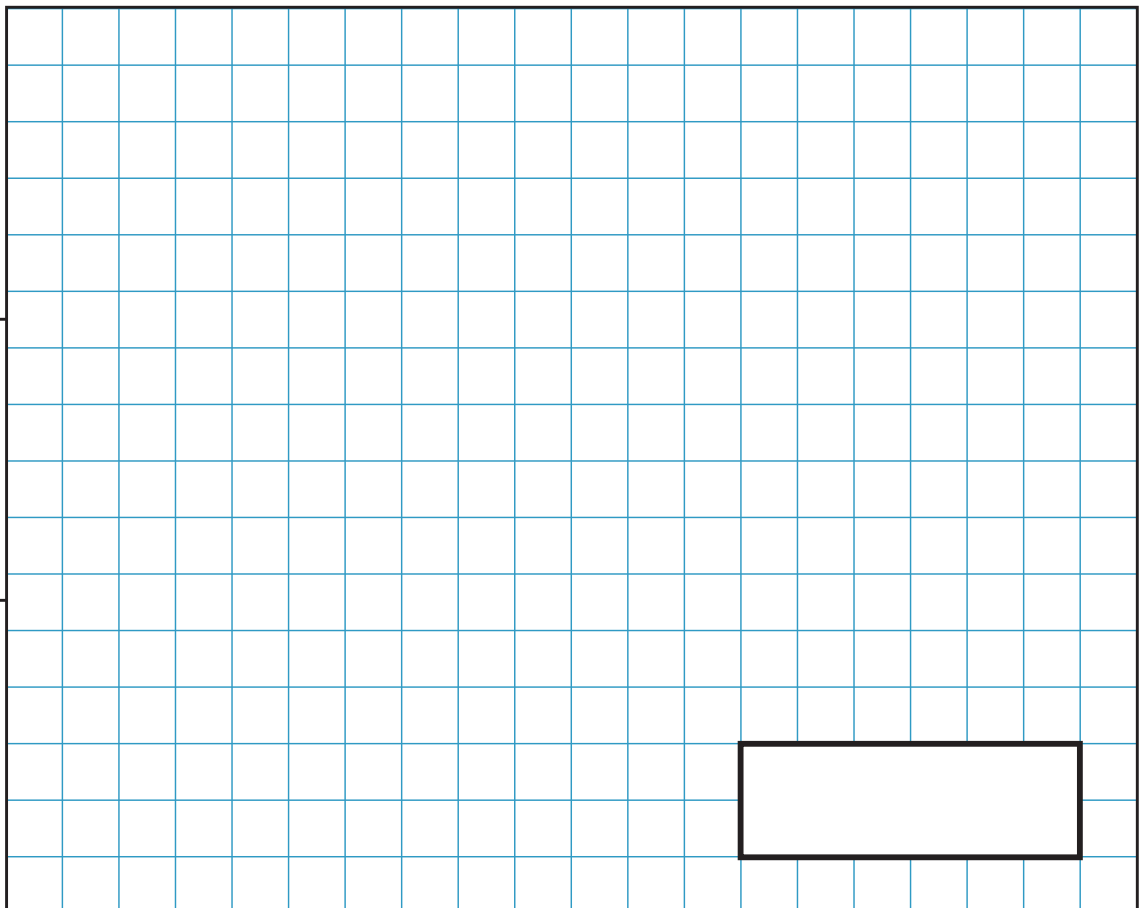


The length of **B** is 10% less than the length of **A**.

The width of **B** is 20% less than the width of **A**.

What is the perimeter of rectangle **B**?

Show  
your  
method



3 marks

END OF TEST

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