Progress check

Year 6

Mathematics

Paper 2: reasoning and problem solving

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

Published Spring 2016

These assessments have been designed by the White Rose Maths Hub.
For more information, please visit **www.whiterosemathshub.co.uk**

MathsHUBS White Rose

[BLANK PAGE]

Please do not write on this page.

Instructions

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

Questions and answers

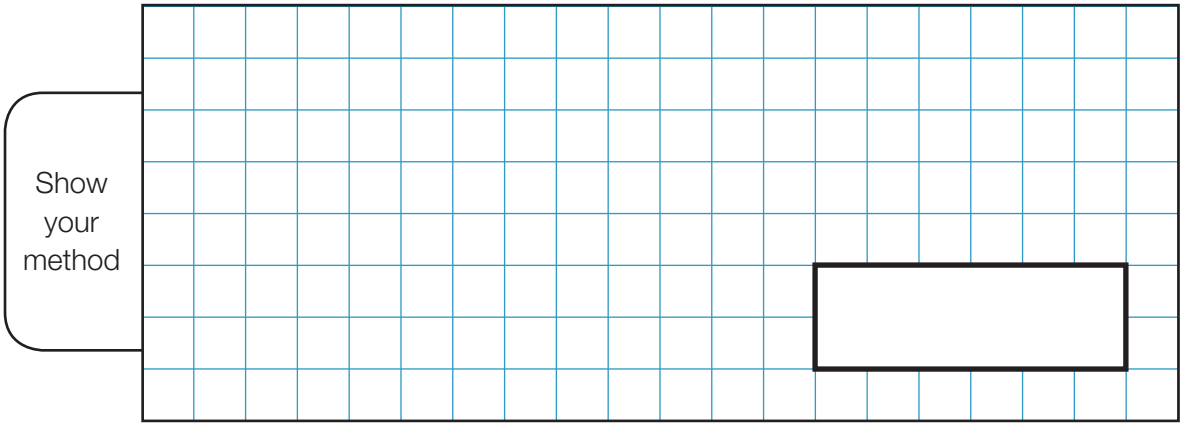
You have **35 minutes** to complete this test.

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:



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**.

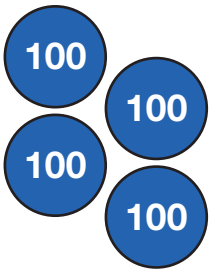
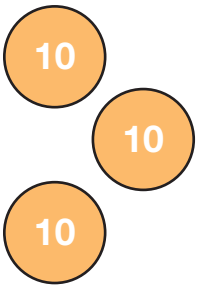
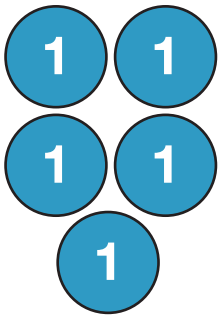
You can come back to it later, if you have time.

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 Hazel makes a number on a place value grid.

Hundreds	Tens	Ones	Tenths	Hundredths
				

Hazel adds two more hundredths counters to the grid.

What number does she have now?

1 mark

What is Hazel's number rounded to the nearest whole number?

1 mark

2 Put a tick (✓) if the statement is correct.

$0.37 \times 1000 = 370$ ☐

$0.37 \times 10 = 0.370$ ☐

$0.37 \div 10 = 00.37$ ☐

$0.37 \div 100 = 0.0037$ ☐

1 mark

3 Here are the prices of some items.

How much do six CDs cost?

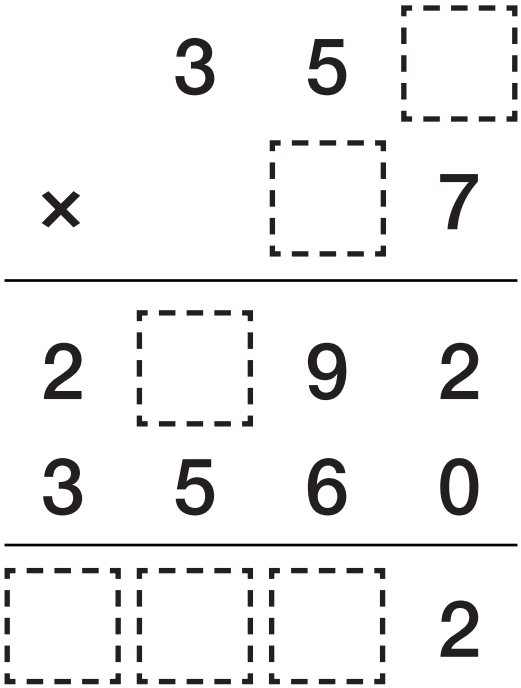
1 mark

The shop is having a 25% off sale.

How much does one DVD cost now?

1 mark

4 Fill in the missing digits.



2 marks

5 Three children are running a 5 kilometre race for charity.

Harry has run 3.77km

Sam has run 3,792m

Geeta has run $3\frac{3}{4}$ km

Who has run the furthest?

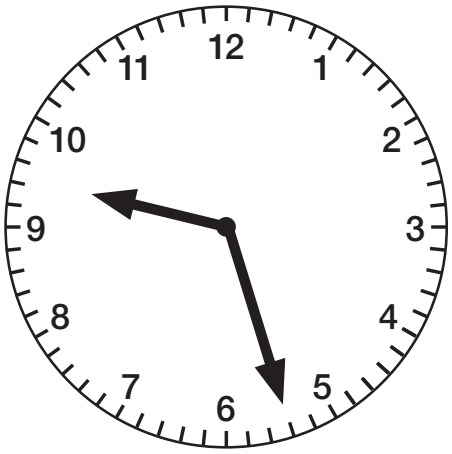
1 mark

How far have they run altogether?

1 mark

6 Here are the start and end times of a TV programme.

Start



End

How long is the TV programme?

Give your answer in minutes.

Show your method

minutes

1 mark

7

1 mile = 1.6km

Use this fact to complete the statements.

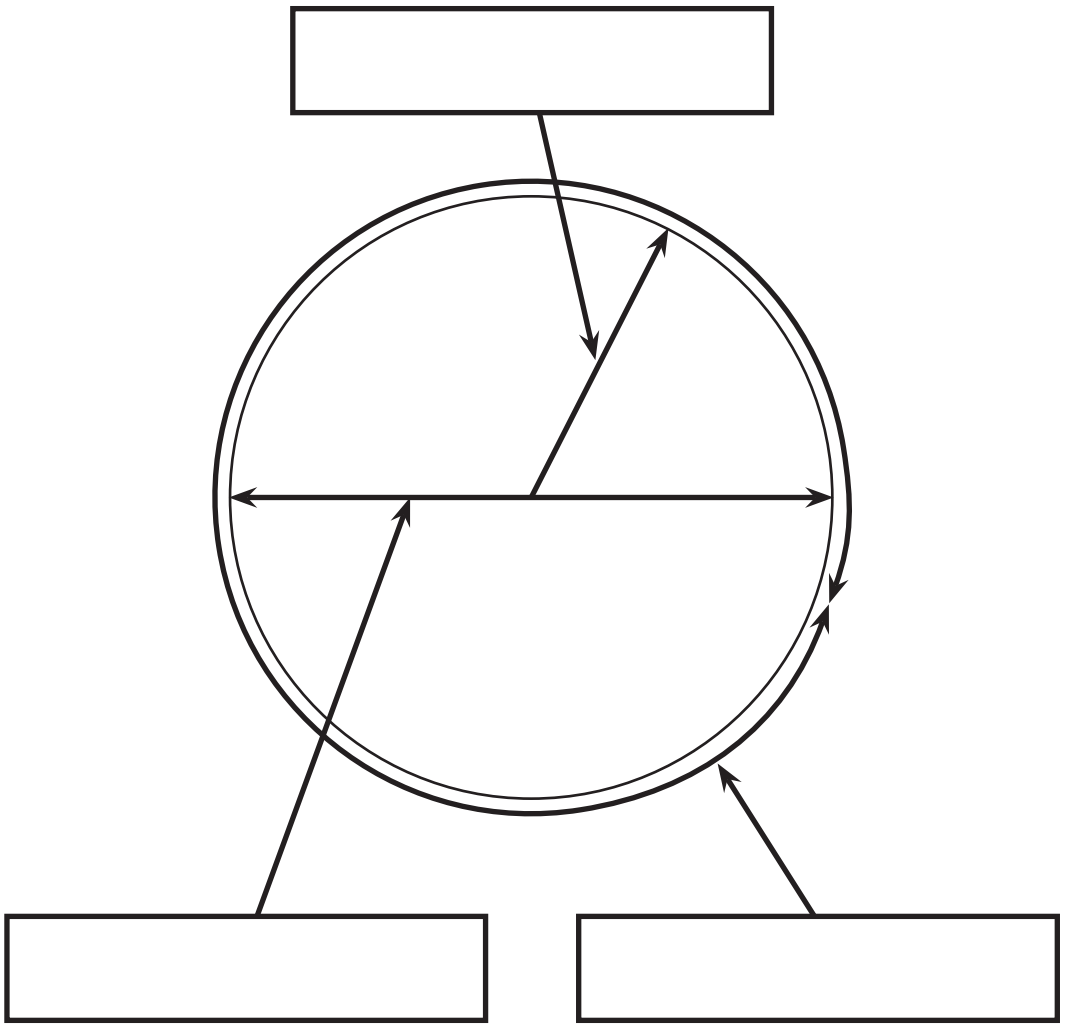
☐ miles = 4.8km

10 miles = ☐ km

☐ miles = 400m

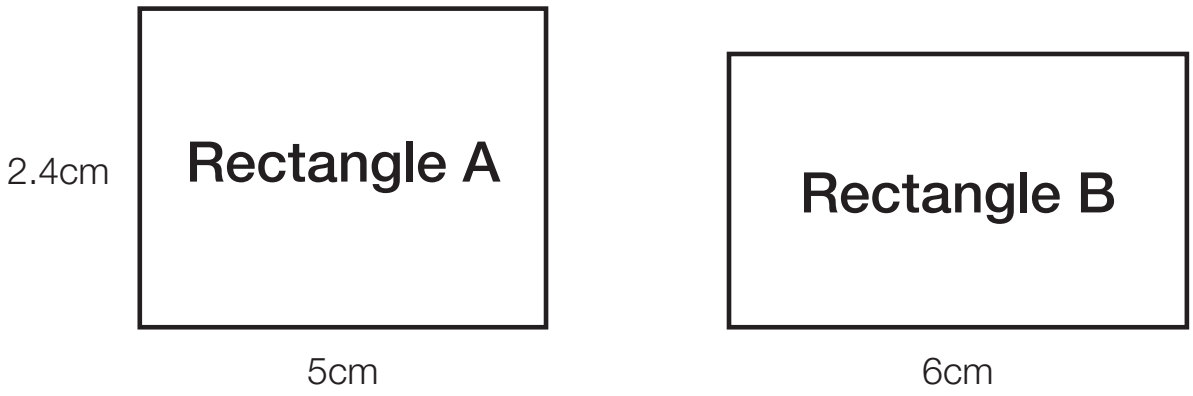
2 marks

8 Label the parts of the circle.



1 mark

9 Two rectangles each have the same area.



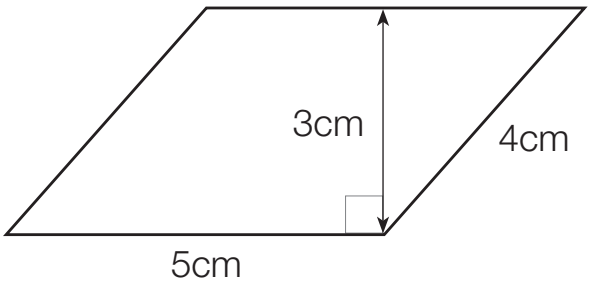
(not to scale)

Which shape has got the **largest** perimeter?

Explain your answer.

3 marks

10 Here is a parallelogram.



Calculate the area of the parallelogram.

$\square$ cm²

1 mark

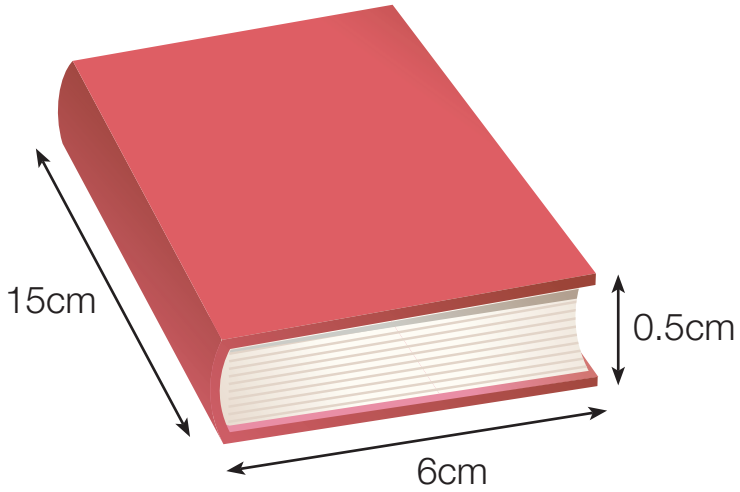
11 Fill in the missing number.

$$20\% \text{ of } \square = \frac{1}{10} \text{ of } 680$$

1 mark

12 One book is 6cm wide, 15cm long and 0.5cm thick.

Eight identical books are placed on top of each other.



What volume is taken up by the books?

Show your method

cm^3

2 marks

13 Here are the ingredients needed to make 12 cookies.

Ingredients

Sugar 180g

Butter 225g

Eggs 2

Flour 0.3kg

How much more flour than sugar is used?

1 mark

How much butter is needed for 48 cookies?

g

1 mark

Mary uses the recipe to make a different amount of cookies.
Mary uses 3 eggs.

How many cookies does she make?

1 mark

14 Fill in the missing numbers.

3	7	12	18	25		

0.5		1.3	1.7		

2 marks

15

$$a + b = 14$$

a and b are whole numbers.

a is a one digit number.

b is a two digit number.

Find four different possibilities for a and b.

a	b

1 mark

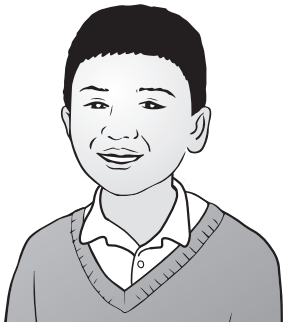
16 Petra has some sweets.

Abdul has 3 more sweets than Petra.

Sean has 1 more sweet than Abdul.

They have 25 sweets altogether.

Petra



Abdul

Sean

How many sweets do they have each?

Show your method

Petra: ☐ **sweets**

Abdul: ☐ **sweets**

Sean: ☐ **sweets**

2 marks

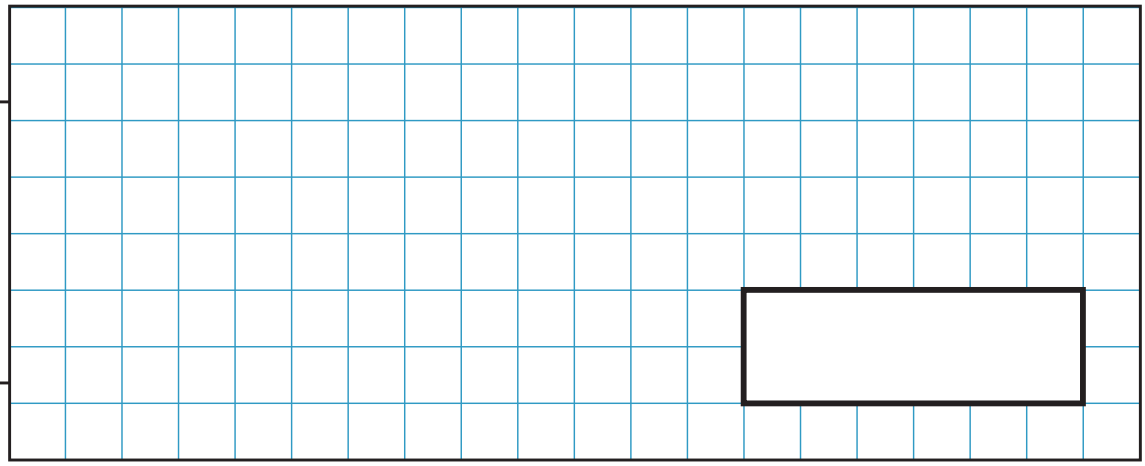
17 Five numbers have a mean of 12

Here are four of the numbers.

13 12 9 16

What is the fifth number?

Show your method



2 marks

END OF TEST

[BLANK PAGE]

Please do not write on this page.

[BLANK PAGE]

Please do not write on this page.