

Spring Assessment

# Year 9

## Mathematics

**Foundation:** No calculator allowed

Time allowed: 45 minutes

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

These assessments have been designed by White Rose Maths.  
For more information, please visit [www.whiterosemaths.com](http://www.whiterosemaths.com)



1

There are 34 pens in a box.

Jack takes 13 pens out of the box.

Aisha puts 19 pens into the box.

How many pens are now in the box?

2 marks

2

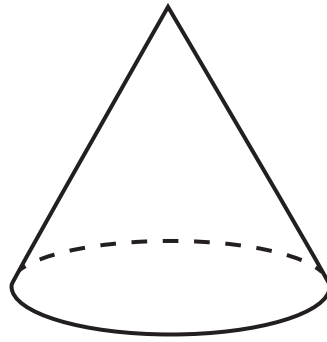
A book costs £5.99

How much do five books cost?

2 marks

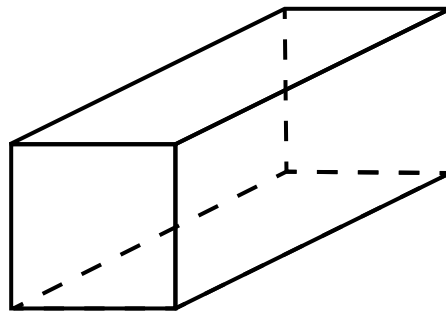
3

Write down the mathematical name of this 3-D shape.



\_\_\_\_\_ 1 mark

Here is a diagram of a cuboid.



Write down

the number of faces

the number of edges

1 mark

the number of vertices

1 mark

1 mark

4

Write the numbers in order starting with the smallest.

$$\frac{3}{10}$$

35%

0.31

0.039

5

A laptop costs £1050

The cost of the laptop is reduced by 30%

How much does the laptop cost now?

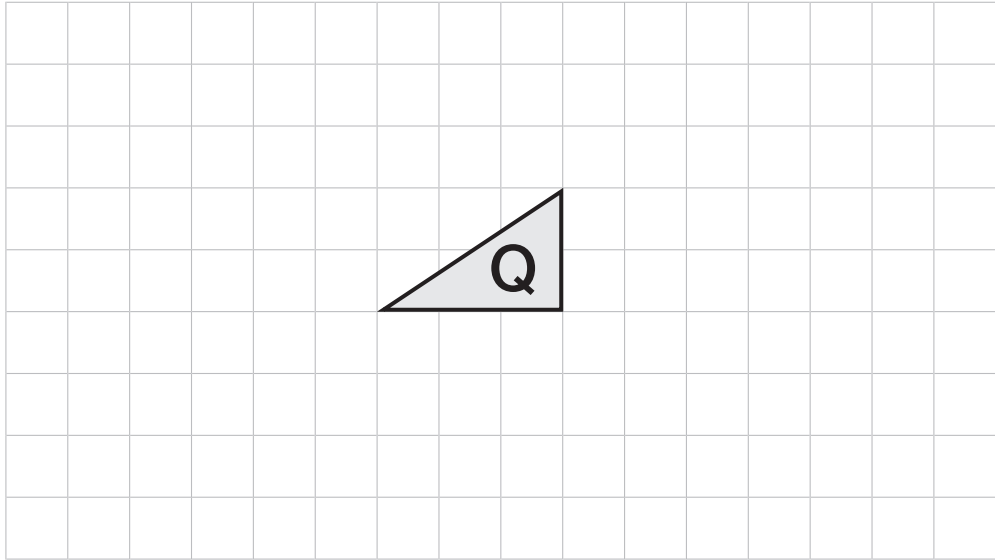
2 marks

£

3 marks

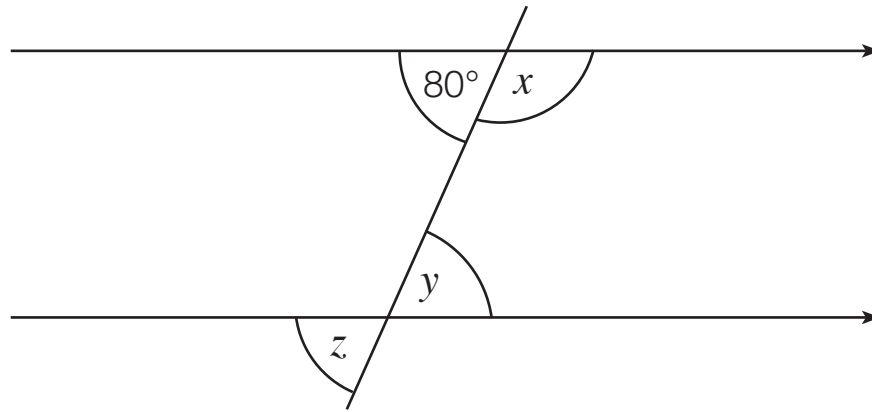
6

Translate shape Q 3 squares to the right and 2 squares down.



2 marks

7



Work out the size of the angle marked  $x$ .

Give a reason for your answer.

2 marks

Explain why the angle marked  $y$  is  $80^\circ$ .

1 mark

Explain why the angles marked  $y$  and  $z$  are equal.

1 mark

**8**

Solve the equations.

$$4m - 5 = 35$$

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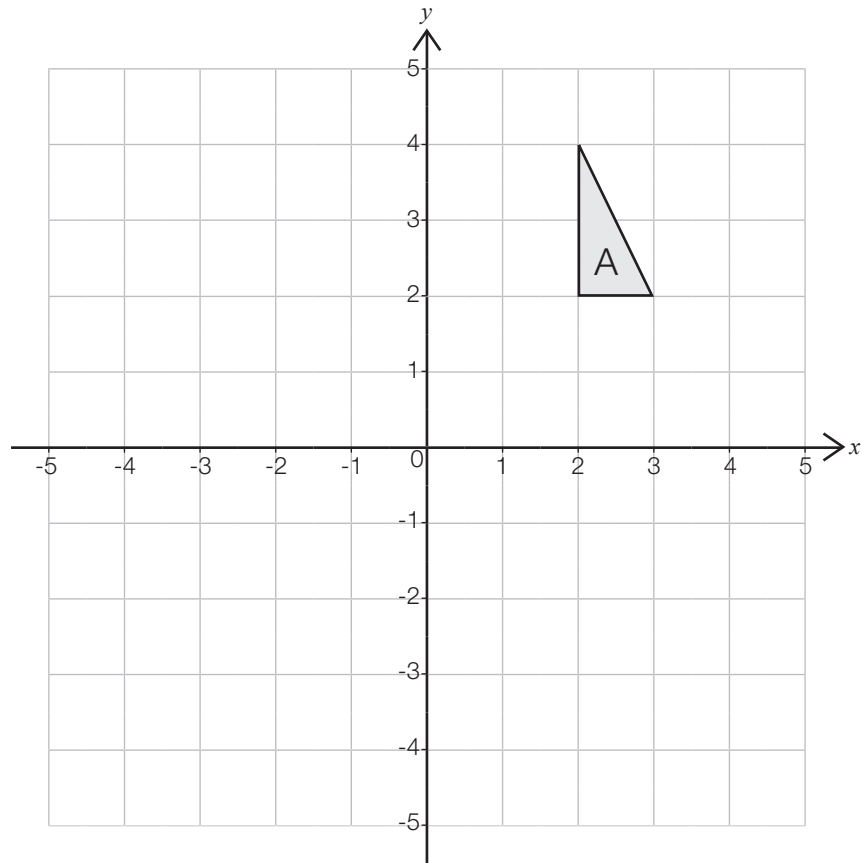
2 marks

$$\frac{d}{2} + 1 = 4$$

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2 marks

9



On the grid, rotate triangle A  $90^\circ$  anti-clockwise about the origin.

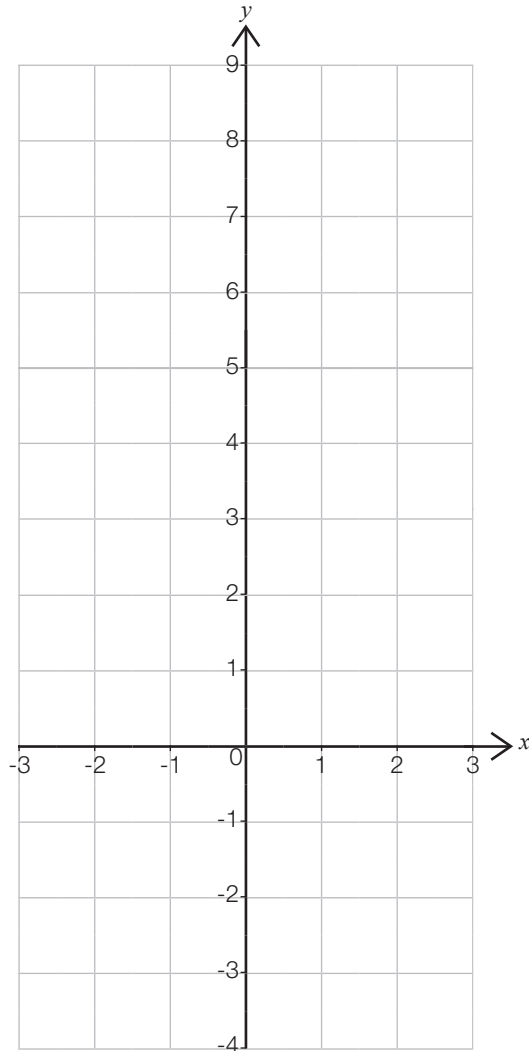
Label your new triangle B.

2 marks



10

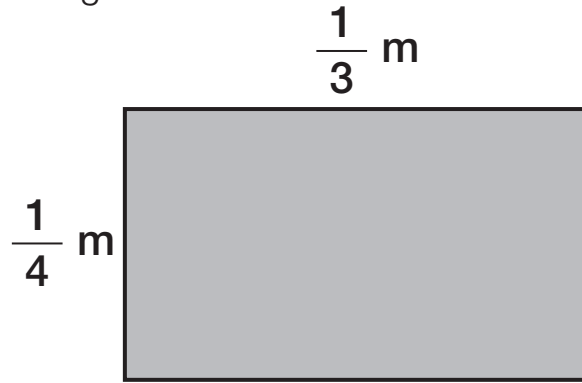
On the grid, draw the graph of  $y = 3x + 2$  from  $x = -2$  to  $x = 2$



4 marks

**11**

Here is a rectangle.



Work out the area of the rectangle.

 $\text{m}^2$ 

1 mark

**12**

Work out

$$-3 - 5$$

1 mark

$$-3 - -5$$

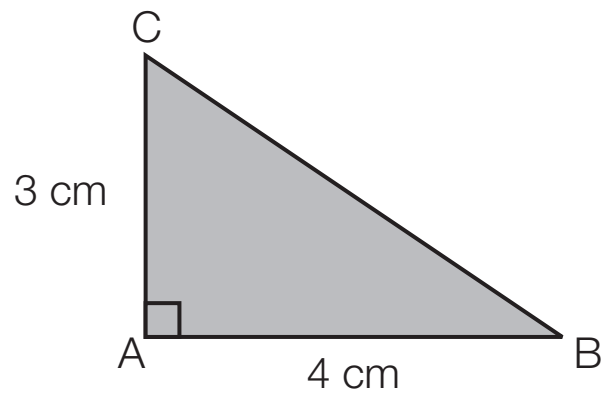
1 mark

$$-3 \times -5$$

1 mark

13

Use Pythagoras' theorem to show that the length BC is 5 cm.



2 marks

14

Mario invests £2000 for 3 years at 5% per annum simple interest.

Calculate the value of the investment at the end of 3 years.

£
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3 marks

**15**

Use a ruler and a pair of compasses to construct an equilateral triangle with sides of length 6 cm.

You must show all your construction lines.

2 marks

**END OF TEST**