Mathematics

Calculator allowed Time allowed: 45 minutes

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

1
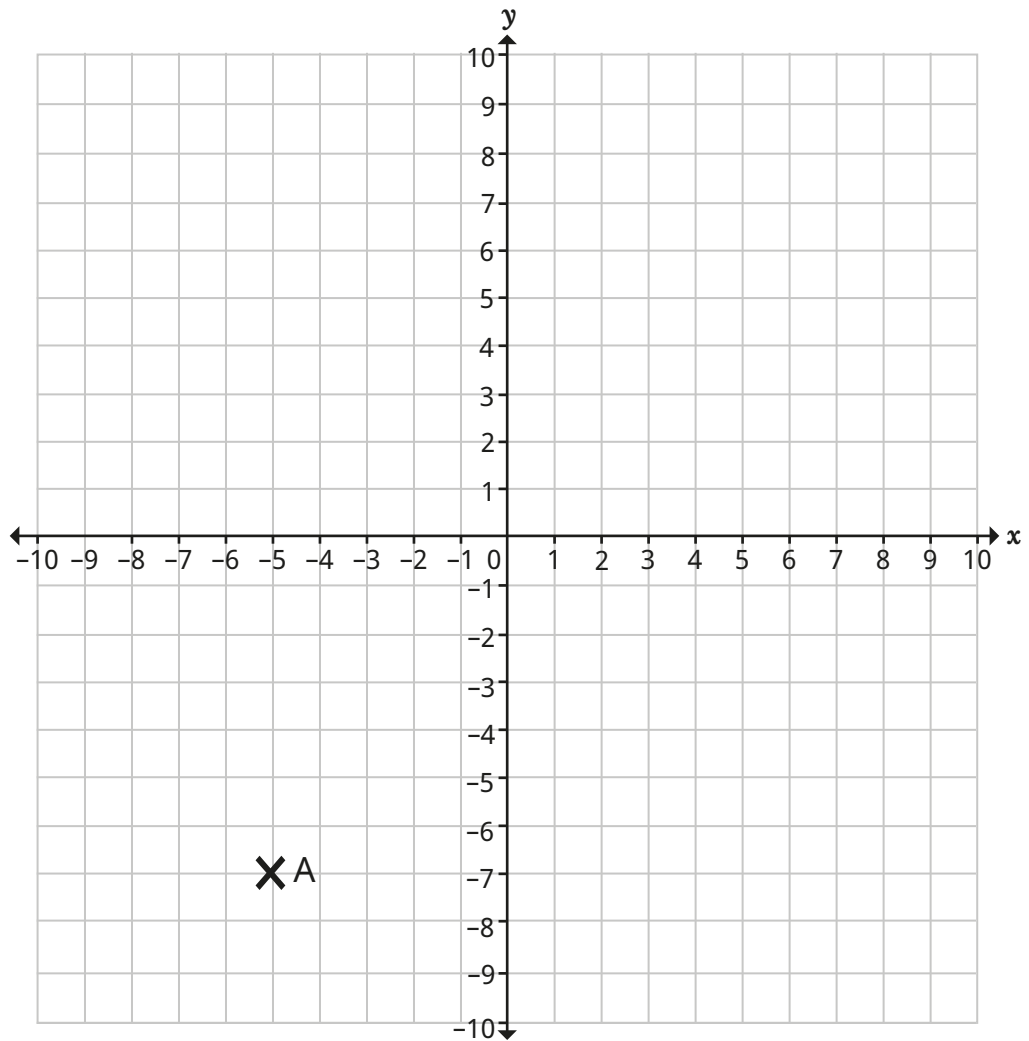
What are the coordinates of point A?

(____ , ____)

1 mark

On the grid, plot the point (**2, -3**) and label it B.

1 mark

2 Express **45 : 55** in its simplest form.

$$\boxed{ : }$$

1 mark

3 Dexter has worked out $\frac{3}{5} \times 8$

Here is his working.

$$\frac{3}{5} \times 8 = \frac{24}{40}$$

Explain the mistake he has made.

1 mark

Work out $\frac{3}{8} \times$ **12**
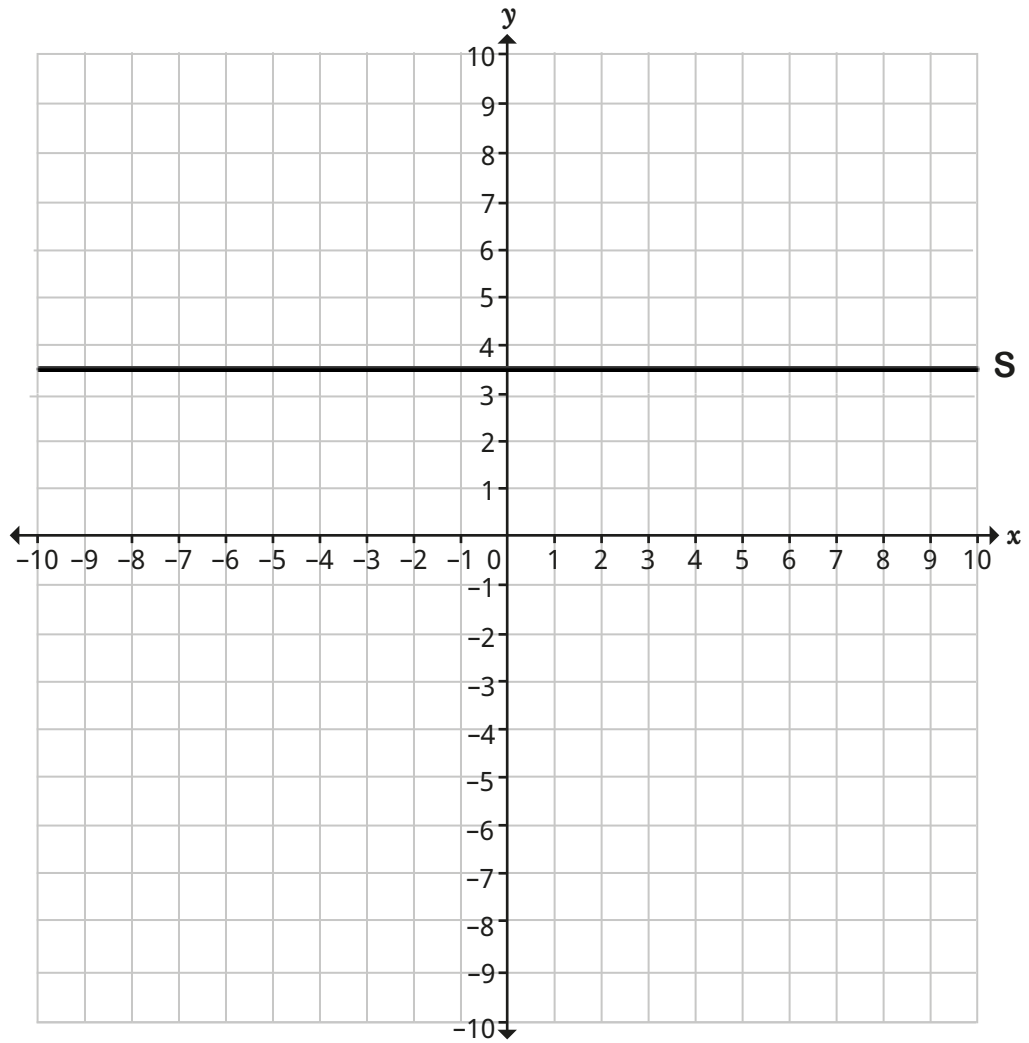
1 mark

4 The two-way table shows some information about **420** students in a school.

	Year 7	Year 8	Year 9	Total
Goes to school by bus	93			
Goes to school by car		57		166
Total	155		120	

Complete the two-way table.

5

What is the equation of line **S**?

_____

1 mark

Draw the graph of x = **-2**

1 mark

Write the coordinates of the point where x = **-2** meets line **S**.

(,   )

1 mark

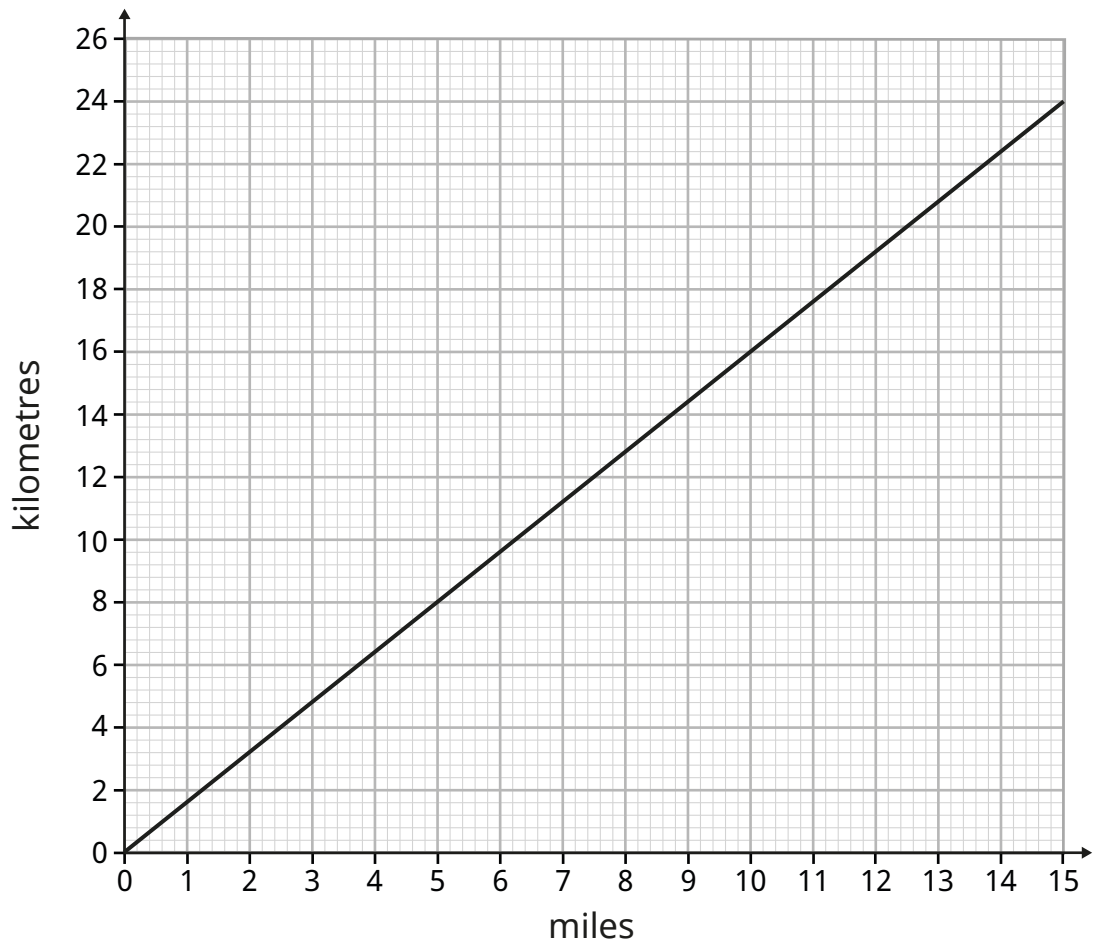**6** The cost of buying 8 identical pens is £**65.60**.

Work out the cost of buying **13** of the same pens.

£

2 marks

7 The graph shows the conversion between miles and kilometres.

Convert **13** miles to kilometres.

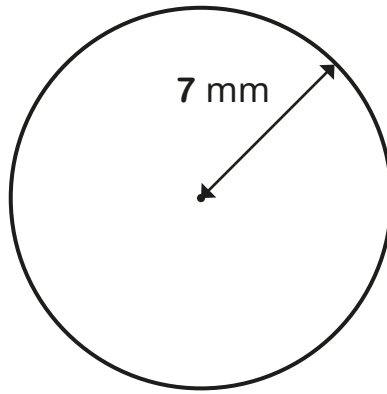| | **km** |

Convert **16** kilometres to miles.

| | **miles** |

Convert **160** kilometres to miles.

| | **miles** |

8 Here is a circle.

7 mm

What is the diameter of the circle?

mm

Work out the circumference of the circle.

mm

9 Show that $9 \div \frac{1}{3} = 27$

10 $a = \frac{1}{7}$ and $b = \frac{3}{5}$

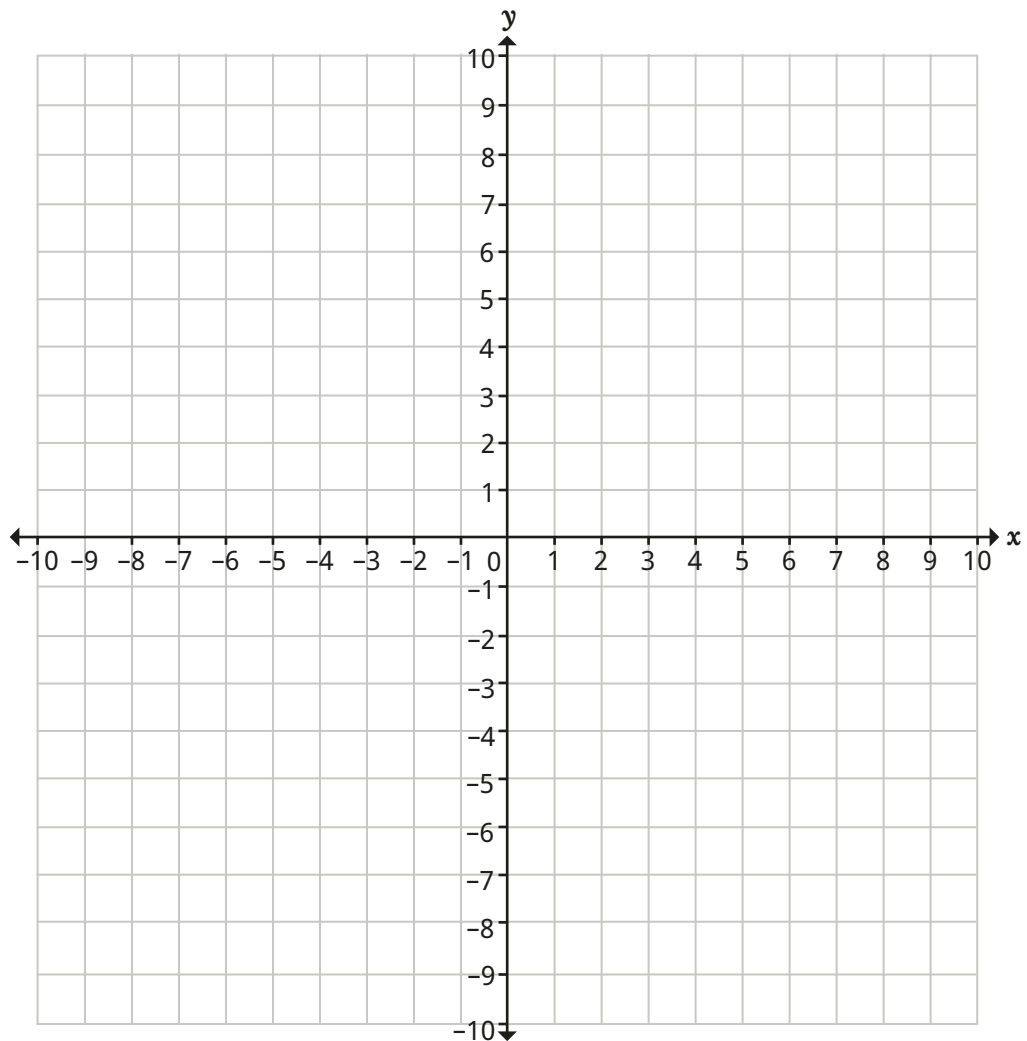Work out the value of **5**a.

1 mark

Work out the value of $2ab$.

2 marks

Work out the value of $\frac{a}{b}$

2 marks

11 Complete the table of values for $y = 2x - 4$

x	-2	-1	0	1	2
y	-8				

2 marks

Draw the graph of $y = 2x - 4$ for values of x from -2 to 2

2 marks

12

Tom has a **2p coin** and a fair 6-sided dice.

He flips the counter and rolls the dice.

Complete the sample space diagram to show the possible outcomes.

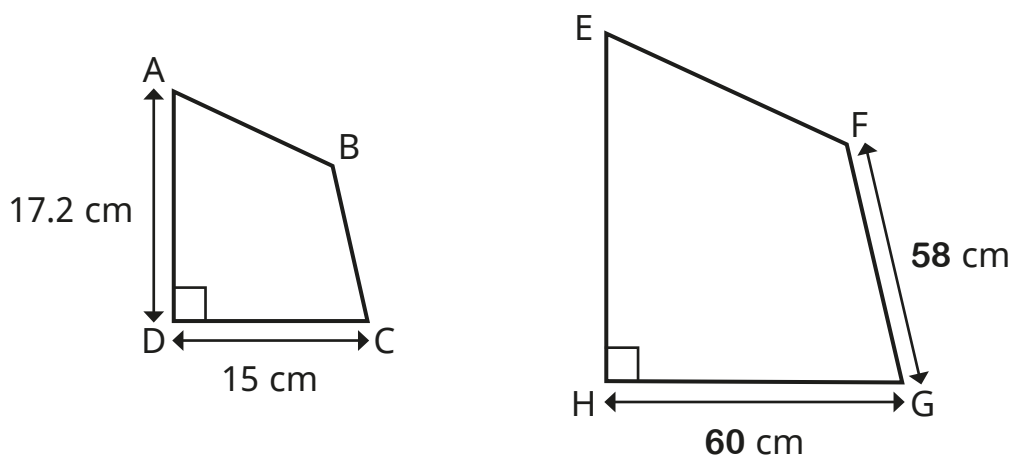|	1	2	3	4	5	6
Heads	H1					
Tails			T3			

1 mark

What is the probability that the die lands on 5 and the coin lands on tails?

2 marks

13 ABCD and EFGH are similar.

The diagrams are not drawn accurately.

What is the scale factor of enlargement from ABCD to EFGH?

Work out the length of EH.

cm

Work out the length of BC.

cm

14

£1 = €**1.17**

The cost of buying a tablet in the UK is £**658**

The cost of buying the same tablet in **Italy** is €**552**

Where is the tablet cheaper?

Circle your answer.

UK   **Italy**

Show your working.

2 marks

15 Billy and Brenda run a market stall.

They share the money in the ratio 4 : 5

What fraction does Billy get?

One week, they earn £**632.70** in total.

How much money does Brenda get?

£

END OF TEST

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