

Year 8

Mathematics

Core: Calculator allowed

Time allowed: 45 minutes

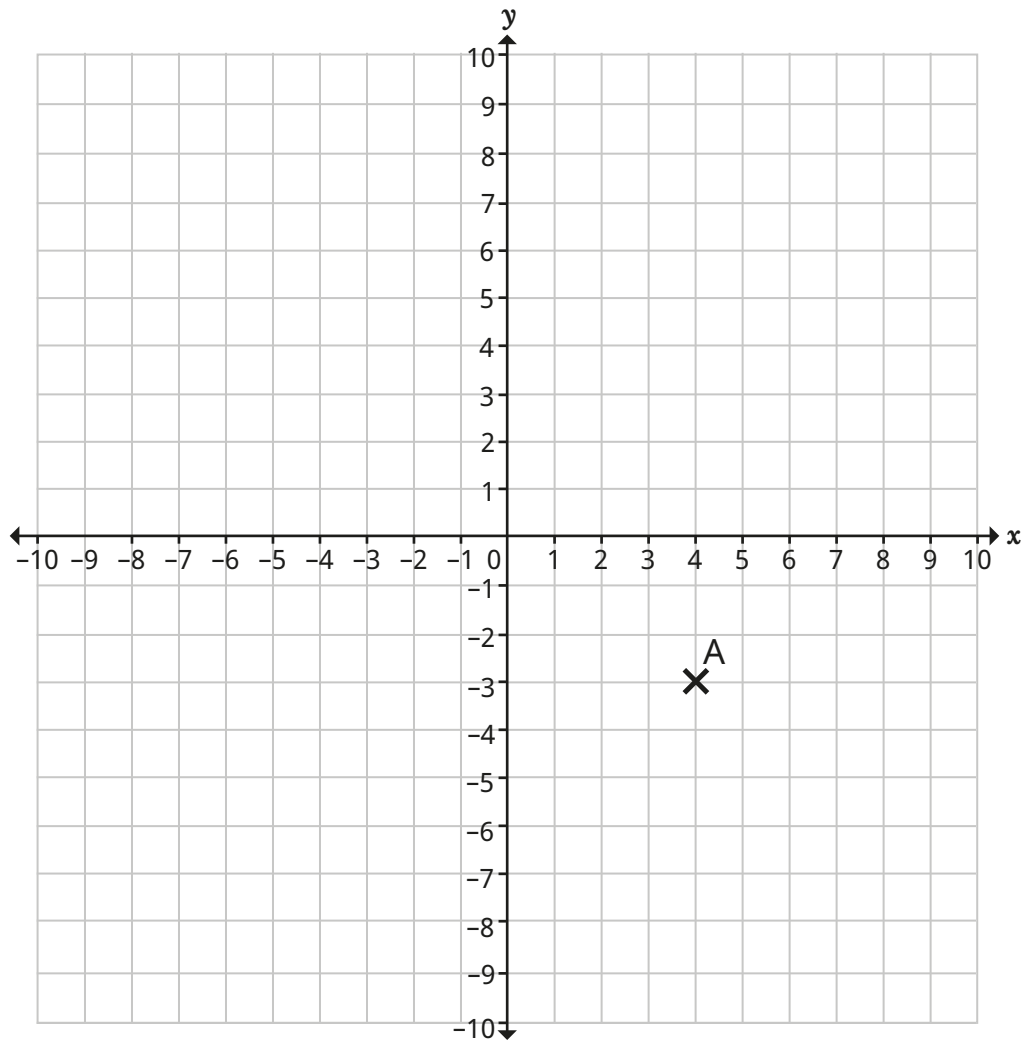
| | | | | | | |
|---------------|-----|--|-------|--|------|--|
| First name | | | | | | |
| Middle name | | | | | | |
| Last name | | | | | | |
| Date of birth | Day | | Month | | Year | |
| Teacher | | | | | | |

This assessment has been designed by White Rose Maths.

For more information, please visit www.whiterosemaths.com



1



What are the coordinates of point A?

(,)

1 mark

On the grid, plot the point (-7, 8) and label it B.

1 mark

2

Express 20 : 35 in its simplest form.




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 markWork out $\frac{3}{5} \times 8$ 

1 mark

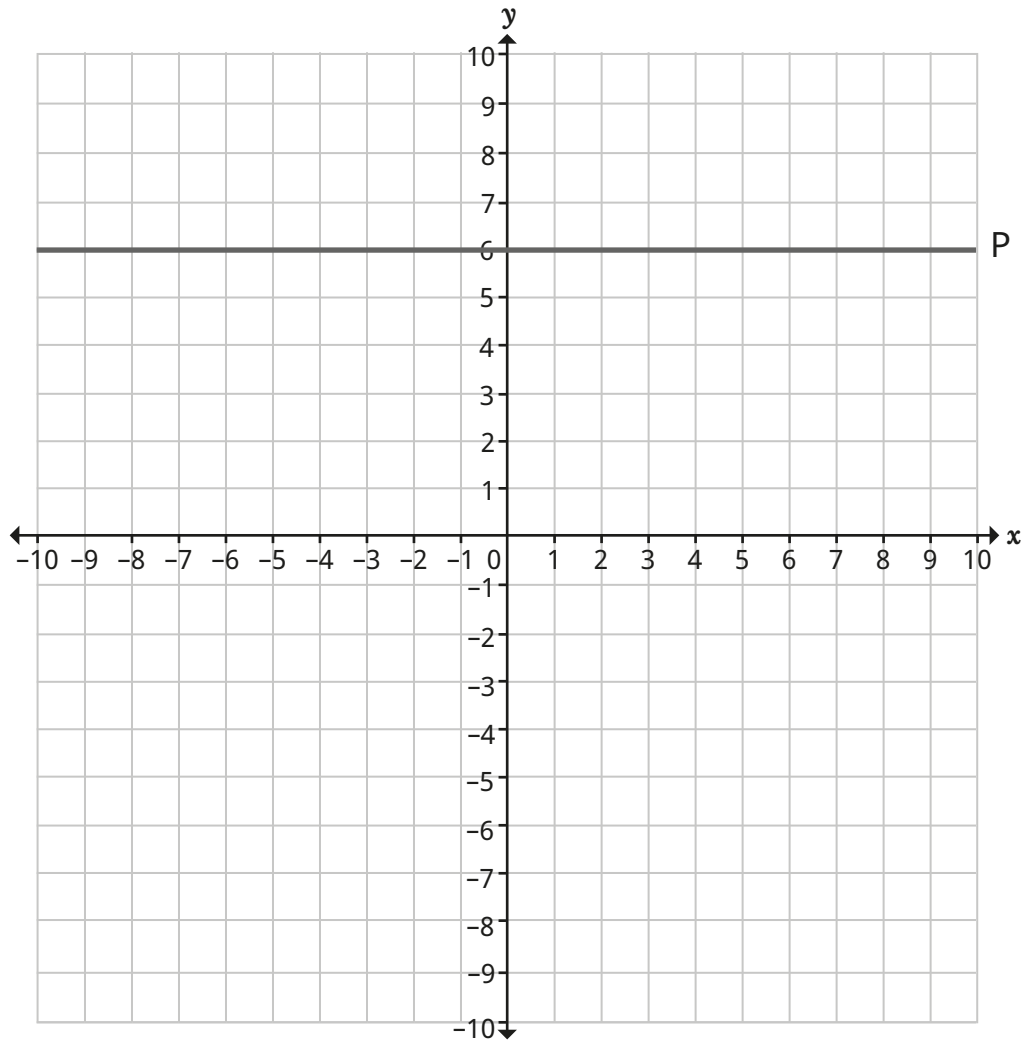
4

The two-way table shows some information about 315 students in a school.

| | Year 7 | Year 8 | Year 9 | Total |
|------------------------------|--------|--------|--------|-------|
| Has a packed lunch | 81 | | | |
| Does not have a packed lunch | | 45 | | 132 |
| Total | 125 | | 90 | |

Complete the two-way table.

5



What is the equation of line P?

1 mark

Draw the graph of $x = -7$

1 mark

Write the coordinates of the point where $x = -7$ meets line P.

(,)

1 mark

6

The cost of buying 8 identical pens is £4.72

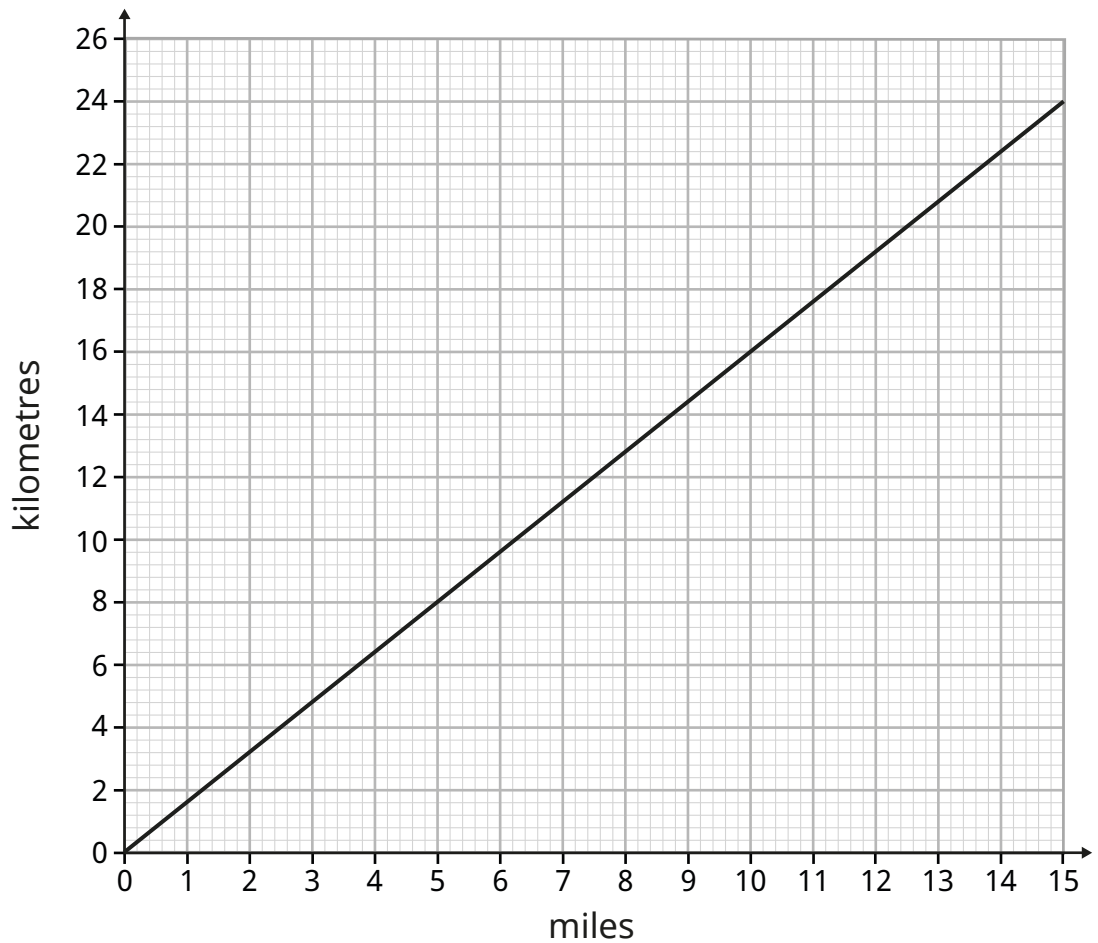
Work out the cost of buying 10 of the same pens.

£

2 marks

7

The graph shows the conversion between miles and kilometres.



Convert 10 miles to kilometres.

km

1 mark

Convert 8 kilometres to miles.

miles

1 mark

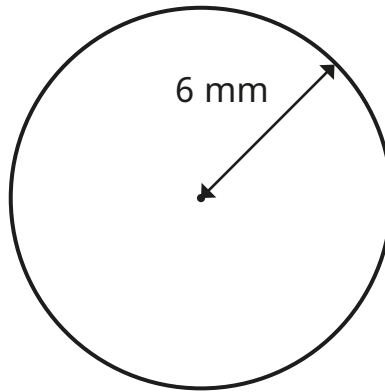
Convert 80 kilometres to miles.

miles

1 mark

8

Here is a circle.



What is the diameter of the circle?

mm

1 mark

Work out the circumference of the circle.

mm

2 marks

9

Show that $6 \div \frac{1}{3} = 18$

1 mark

10

$$a = \frac{1}{5} \text{ and } b = \frac{3}{4}$$

Work out the value of $4a$.

1 mark

Work out the value of ab .

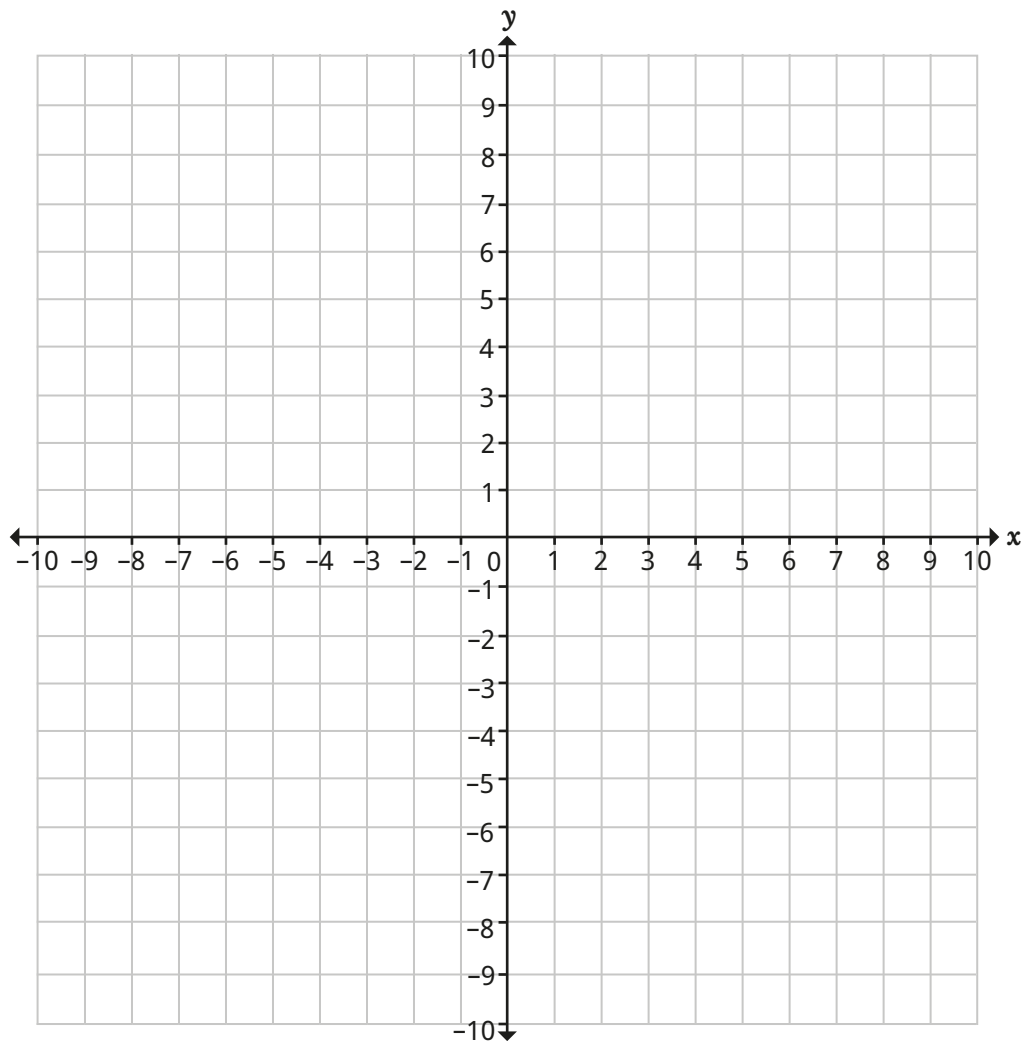
2 marks

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

2 marks

11Complete the table of values for $y = 3x - 1$

| | | | | | |
|-----|----|----|----|---|---|
| x | -2 | -1 | 0 | 1 | 2 |
| y | -7 | | -1 | | |

2 marksDraw the graph of $y = 3x - 1$ for values of x from -2 to 2

2 marks

12

Tom has a double-sided counter and a fair 6-sided dice.
His counter is red (R) on one side and yellow (Y) on the other.
He flips the counter and rolls the dice.

Complete the sample space diagram to show the possible outcomes.

| | 1 | 2 | 3 | 4 | 5 | 6 |
|--------|----|---|----|---|---|---|
| Red | R1 | | | | | |
| Yellow | | | Y3 | | | |

1 mark

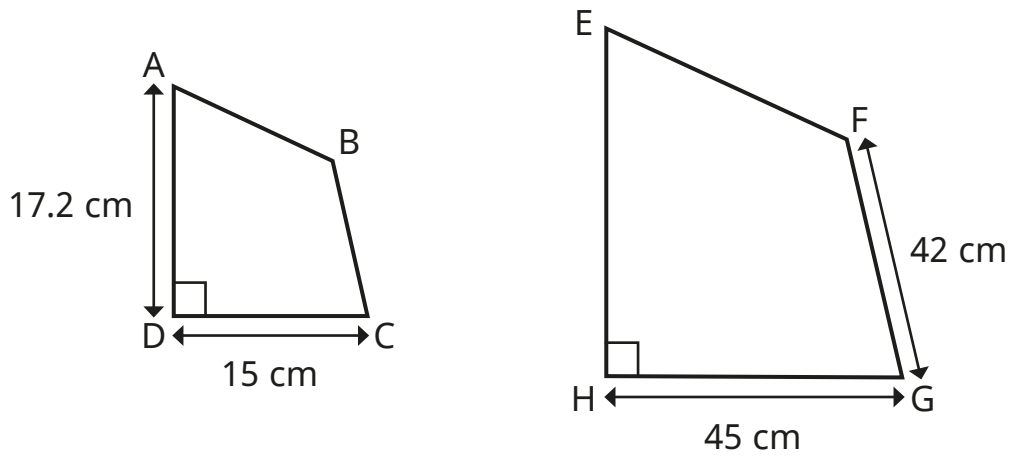
What is the probability that the dice lands on an odd number and the counter lands on red?

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?

1 mark

Work out the length of EH.

1 mark

Work out the length of BC.

1 mark

14

£1 = €1.13

The cost of buying a tablet in the UK is £429

The cost of buying the same tablet in Spain is €479

Where is the tablet cheaper?

Circle your answer.

UK

Spain

Show your working.

15

Nijah and Scott do a car boot sale.

They share the money earned in the ratio 2 : 3

What fraction of the money does Scott get?

1 mark

One week, they earn £97.50 in total.

How much money does Nijah get?

2 marks

END OF TEST

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