

Foundation (Grade 5) GCSE Mini Test 4

- 1** A car travels at an average speed of 65 miles per hour for 2 hours and 40 minutes.

Work out distance travelled by the car.
Give your answer to 1 decimal place.

173.3 miles

- 2** A piece of silver has a mass of 650 grams and a volume of 62 cm^3 .

Work out the density of the piece of silver.

10.5 g/cm^3

- 3** It takes 5 builders 4 days to build a wall.

Work out how many days it would take 2 builders to build the same wall.

10 days

- 4** Given that $P(B) = 0.65$, find $P(B')$

0.35

- 5** Calculate $(7 \times 10^6) \times (2.5 \times 10^{-2})$
Give your answer in standard form.

1.75×10^5

- 6** Glen and Harper share some money in the ratio 2:3.

Glen gets £ G and Harper gets £ H

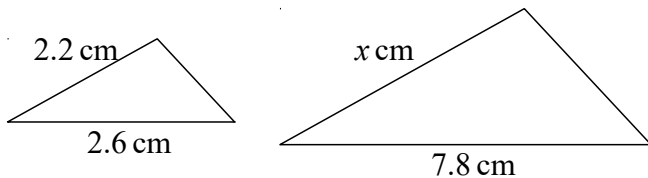
India and Jade share the same amount of money as Glen and Harper.

They share their money in the ratio 5:1

India gets £ I and Jade gets £ J

Find $G:H:I:J$ **12:18:25:5**

- 7** The triangles are mathematically similar.



Calculate the value of x .

6.6

- 8** Solve the simultaneous equations:

$$7x + 2y = 23$$

$$5x - 4y = 30$$

$$x = 4$$

$$y = -2.5$$

- 9**
Calculate the length of AC .

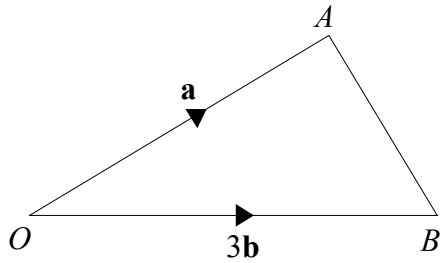
- 10** Peter bought a new car for £16 000.

In the first year the value of the car depreciates by 25%.

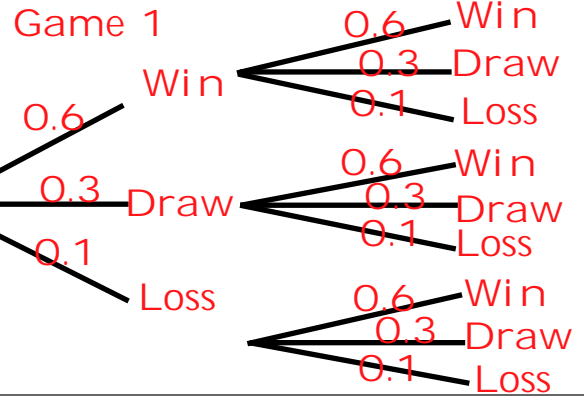
In the second year and the third year the car depreciates by 15%

Work out the value of the car after three years.

£8670

11

Find, in terms of a and b , the vector \vec{AB}
 $-\underline{a} + 3\underline{b}$

12**13**

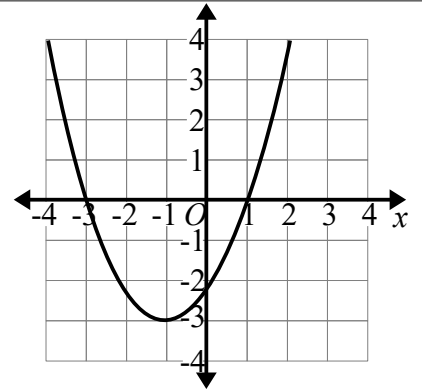
Make n the subject of $m = n^2 - 5$

$$n = \sqrt{m + 5}$$

14

Write down the turning point of the graph

$(-1, -3)$

**15**

Factorise fully: $30x^2 + 18x$

$$6x(5x + 3)$$

16

A line passes through the point $(0, -8)$.
 The gradient of this line is 2.
 Write down the equation of this line.

$$y = 2x - 8$$

17

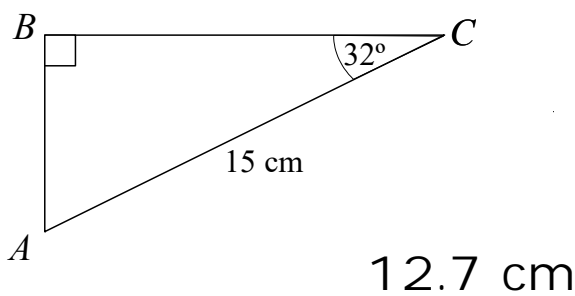
The cost of a council tax bill increased by 5%.
 The council tax bill **increased by** £38
 Work out the cost of the council tax bill before
 the increase.

£760

18

Solve: $a^2 - 10a + 21 = 0$

$$a = 3 \text{ or } a = 7$$

19

Calculate the length BC .

20

The bearing of A from B is 105°
 Find the bearing of B from A.

285°