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.

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.

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.

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

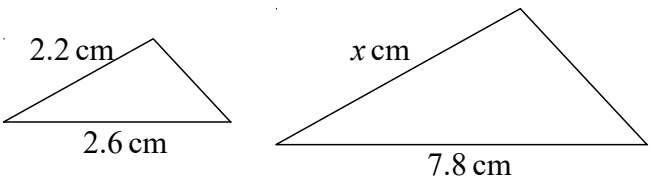
5 Calculate $(7 \times 10^6) \times (2.5 \times 10^{-2})$
Give your answer in standard form.

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 $G:H:I:J$

7 The triangles are mathematically similar.

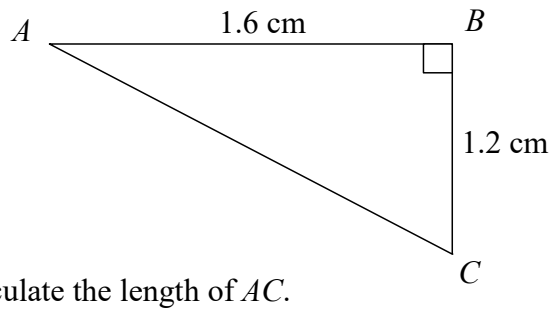


Calculate the value of x.

8 Solve the simultaneous equations:

$7x + 2y = 23$
$5x - 4y = 30$

9



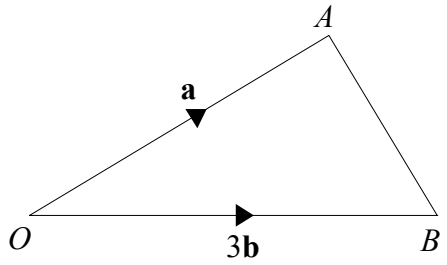
Calculate the length of AC.

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.

11



Find, in terms of a and b, the vector $\overrightarrow{AB}$

12

Jon plays a game where he can win, draw or lose.

The probability Jon wins any game 0.6
The probability Jon draws any game is 0.3

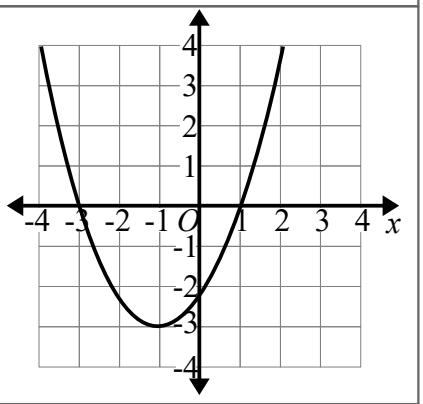
Jon plays two games.

Draw a probability tree to represent this information.

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

14

Write down the turning point of the graph



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

16

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

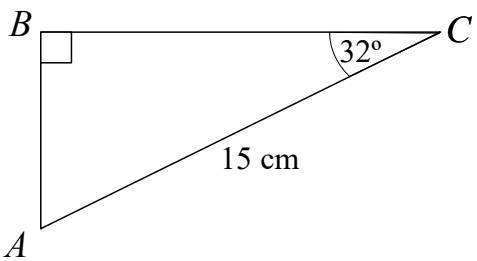
17

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.

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

19



Calculate the length BC.

20

The bearing of A from B is 105°

Find the bearing of B from A.