Foundation (Grade 5) GCSE Mini Test 2

1 A sprinter runs a distance of 400 metres in 44 seconds.

Work out the average speed of the sprinter.

Give your answer to 1 decimal place.

9.1 m/s

2 A liquid has a density of 1.25 grams per ml.
Find the mass of 250 ml of the liquid.

312.5 grams

3 It takes 3 painters 6 days to paint a building.

Work out how many days it would take 2 painters to paint the same building.

9 days

4 Given that $P(A) = 0.82$, find $P(A')$

0.18

5 Write 0.09 in standard form.

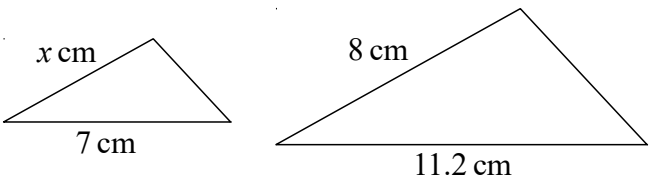
9×10^{-2}

6 In a class the ratio of boys to girls is 3:2
30% of the boys are left handed.

What fraction of all the people in the class are left handed boys?

$\frac{9}{50}$

7 The triangles are mathematically similar.



Calculate the value of x.

5 cm

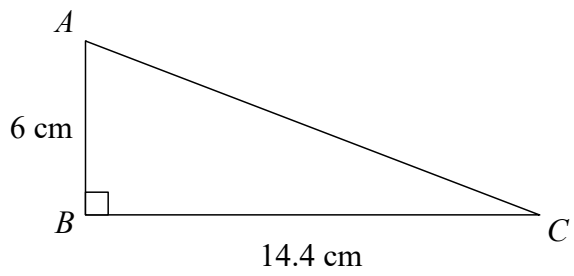
8 Solve the simultaneous equations:

$5x - 2y = 29$
$3x - 4y = 23$

x = 5

y = -2

9



Calculate the length of AC.

15.6 cm

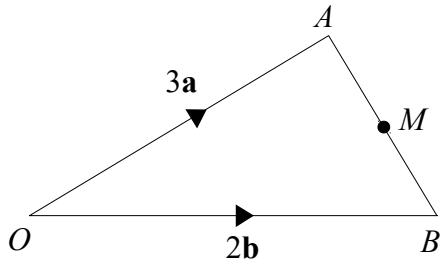
10 Laura invests £2400 for 4 years in a savings account.

She gets 2.5% per annum compound interest.

How much money does Laura have at the end of 4 years.

£2649.15

11



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

$-1.5\underline{a} + \underline{b}$

12

Hannah is going to play one game of chess and one game of backgammon.

The probability she will win the game of chess is 0.65
The probability she will win the game of backgammon is 0.75

Work out the probability that Hannah will win both games.

0.4875

13

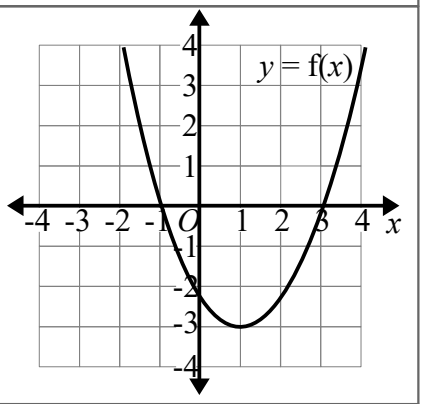
Make b the subject of $a = \sqrt{\frac{b+3}{2}}$

$b = 2a^2 - 3$

14

Write down the roots of the equation f(x)=0

-1 and 3



15

Factorise fully: $20a^2b + 35ab^3$

$5ab(4a + 7b^2)$

16

A straight line has equation $y = -2x - 3$

Write down the gradient of the line.

-2

17

In a sale, the normal price of a car is reduced by 30%.
The sale price of the car is £4550

Work out the normal price of the car.

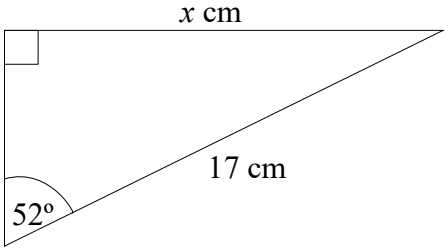
£6500

18

Factorise: $x^2 - 25$

$(x + 5)(x - 5)$

19



Work out the value of x.

13.4

20

The bearing of A from B is 310°

Find the bearing of B from A.

130^0