

Higher (Grade 4-6) GCSE Mini Test 4

- 1** A car travels at an average speed of 65 miles per hour for 2 hours and 20 minutes.

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

- 2** A piece of silver has a mass of 985 grams and a volume of 94 cm^3 .

Work out the density of the piece of silver.

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

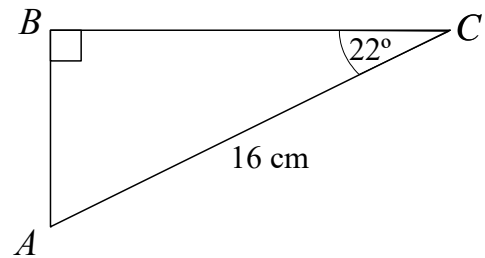
Glen gets £ G and Harper gets £ H

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

They share their money in the ratio 3:1
India gets £ I and Jade gets £ J

Find $G:H:I:J$

4

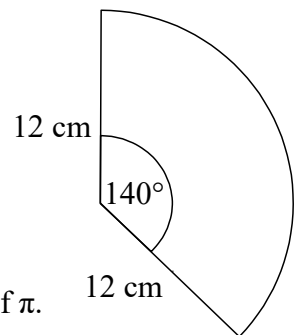


Calculate the length BC .

5

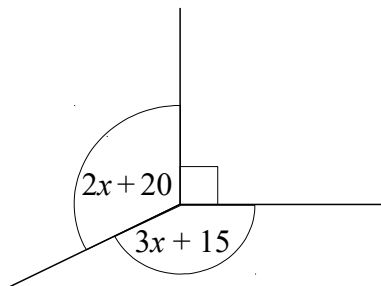
Calculate $(5 \times 10^6) \times (3.5 \times 10^{-3})$
Give your answer in standard form.

6



Find the area of the sector.
Give your answer in terms of π .

- 7** Work out the value of x .



8

Carly and James share some money in the ratio 5 : 3
Carly gets £32 more than James.

Work out how much money James gets.

9

Simplify $(5ab^2)^3$

10

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.

11 Solve the simultaneous equations:

$$7x + 2y = 23$$

$$5x - 4y = 30$$

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 The size of each exterior angle in a regular polygon is 30°

Work out how many sides the polygon has.

14 Find the lowest common multiple (LCM) of 28 and 40

15 Find an estimate for the mean temperature.

Temperature ($^\circ\text{C}$)	Frequency
$14 < t \leq 18$	4
$18 < t \leq 22$	16
$22 < t \leq 26$	7
$26 < t \leq 30$	3

16 Mr Idris has 4 pairs of trousers, 8 shirts and 3 ties.

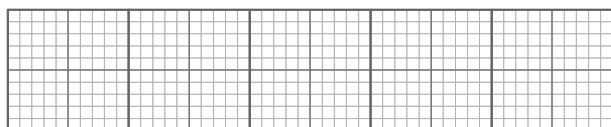
Work out the total number of ways of choosing a pair of trousers, a shirt and a tie.

17 Find the value of $(27x^9)^{\frac{2}{3}}$

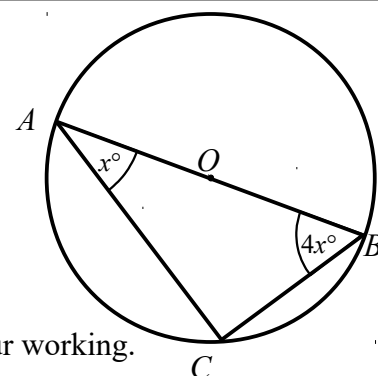
18 A car's value is decreasing by $x\%$ each year. The car will half in value in 6 years, work out the value of x . Give your answer to 1 decimal place.

19 Lowest = 12
Inter Quartile Range = 15
Median = 28
Upper Quartile = 34
Highest = 45

Draw a box plot for this information.



20



Find the value of x .
You must show all your working.