

1 Jenny drives from London to Swindon at an average speed of 54 miles per hour.

She drives for $1\frac{1}{2}$ hours.

(a) Work out the distance from London to Swindon.

$$\text{distance} = \text{speed} \times \text{time}$$

$$\begin{aligned} \text{distance} &= 54 \text{ miles/h} \times 1.5 \text{ h} \quad (1) \\ &= 81 \text{ miles} \quad (1) \end{aligned}$$

$$1\frac{1}{2} \text{ h} = 1.5 \text{ hours}$$

$$\begin{array}{r} 54 \\ \times 15 \\ \hline 270 \\ + 540 \\ \hline 810 \end{array}$$

..... 81 miles
(2)

Aleksy is using a map.

The map has a scale of 1:25 000

On the map a road has a length of 6 cm.

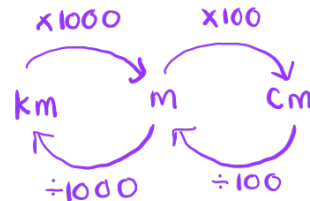
(b) Work out the length, in kilometres, of the real road.

$$\begin{aligned} 1 \text{ cm} &: 25\,000 \text{ cm} \\ \times 6 & \quad \quad \times 6 \\ 6 \text{ cm} &: 150\,000 \text{ cm} \quad (1) \end{aligned}$$

$$= \frac{150\,000 \text{ cm}}{100\,000 \frac{\text{cm}}{\text{km}}} \quad (1)$$

$$= 1.5 \text{ km} \quad (1)$$

CONVERSION



$$\begin{array}{r} 3 \\ 25\,000 \\ \times \quad 6 \\ \hline 150\,000 \end{array}$$

..... 1.5 kilometres
(3)

(Total for Question 1 is 5 marks)

2 Paulo drives at an average speed of 56 km/h for 1 hour 45 minutes. $\text{Speed} = \frac{\text{distance}}{\text{time}}$

Work out the distance Paulo drives.

$$\text{speed} = 56 \text{ km/h}$$

$$\text{time} = 1 \text{ hour } 45 \text{ minutes}$$

$$= 1 \text{ hour} + \left(\frac{45}{60}\right) \text{ hour} \quad \textcircled{1}$$

$$= 1.75 \text{ hour}$$

Convert minute to hour

$$1 \text{ hour} = 60 \text{ minutes}$$

$$\text{distance} = \text{speed} \times \text{time}$$

$$= 56 \text{ km/h} \times 1.75 \text{ h} \quad \textcircled{1}$$

$$= 98 \text{ km} \quad \textcircled{1}$$

98

..... km

(Total for Question 2 is 3 marks)