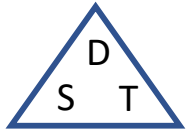




Scott ran at a speed of 10 km/h for 30 minutes.



Find the distance he ran.



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

$$30 \text{ minutes} = 0.5 \text{ hours}$$

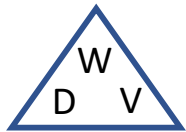
$$\text{distance} = 10 \times 0.5 = 5$$

Scott ran 5km

A certain material has a weight of 500 kilograms and a volume of 25 m^3 .



Find the density



$$\text{density} = \frac{\text{weight}}{\text{volume}}$$

$$\text{density} = \frac{500}{25} = 20$$

Density is 20 kg/m²

Aaron makes leather shoes. Each pair of shoes requires a length of leather measuring 55cm long.



Leather comes in lengths of 4.5m long. How many pairs of shoes can Aaron make from a length of leather, and how much leather will be left over?

$$4.5\text{m} = 450\text{cm}$$

How many 55cm lengths in 450cm?

$$450 \div 55 = 8.181818 \dots$$

There are 8 55cm lengths in 450.

$$8 \times 55 = 440$$

$$450 - 440 = 10$$

Aaron can make 8 pairs of shoes. There will be 10 cm left over.

For this question use 5miles = 8 km



The distance from Northampton to London is 105 miles. How far is this in kilometres?

$$105 \div 5 \times 8 = 168$$

£168

Amelia wants to paint a square wall. If the side length of the wall in the scale drawing is 3.5cm, what is the area of the actual wall Amelia wants to paint if the scale is 1:150?



Give your answer to the nearest square metre.

$$3.5 \times 150 = 525\text{cm} = 5.25\text{m}$$

$$5.25\text{m} \times 5.25\text{m} = 27.5625$$

Area is 27 m² to the nearest square metre.

Sophie takes 15 minutes to drive to work. She lives 10 miles away. What is her average speed in miles per hour?



$$\text{Speed} = \frac{\text{distance}}{\text{time}}$$

15 minutes = quarter of an hour.

1 quarter = 0.25 hours

$$\text{Speed} = \frac{10}{0.25} = 10 \div 0.25 = 40$$

Average speed is 40 mph