Distance and Time Calculations

(a) A car travels at 40 km/h for 3 hours. How far has it travelled?

(b) A runner travels at 8 m/s for 12 seconds. How far have they run?

(c) The train from Manchester to London travels at 120 km/h for 2 hours 30 minutes. How far does the train travel?

(d) An insect crawls at a speed of 0.05 m/s for 2 minutes. How far has it travelled?

(a) $40 \times 3 = 120$ km

(b) $8 \times 12 = 96$ m

(c) $120 \times 2.5 = 300$ km

(d) $0.05 \times 120 = 6$ m

(a) A plane makes a journey of 2250 km at a speed of 750 km/h. How long does the journey take?

(b) An arrow travels at 70 m/s over a distance of 245 metres. How many seconds does it take?

(c) The bus from Preston to Leeds travels 105 km at an average speed of 70 km/h. How long does the journey take?

(a) $\dfrac{2250}{750} = 3$ hours

(b) $\dfrac{245}{70} = 3.5$ seconds

(c) $\dfrac{105}{70} = 1.5$ hours or 90 minutes

(a) A hiker sets off at 10.30 am and walks for 8.1 km at a speed of 3.6 km/h. At what time do they finish their walk?

(b) A delivery van travels at 64 km/h for 3 hours 18 minutes. How far has it travelled?

(c) Kristian rides his bike at a speed of 42 km/h from home to work, a distance of 28 km. How long, in minutes, does it take him?

(a) $\dfrac{8.1}{3.6} = 2.25$, so 12.45pm

(b) $64 \times 3.3 = 211.2$ km.

(c) $\dfrac{28}{42} = \dfrac{2}{3}$ hour $\Rightarrow$ 40 minutes

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(a) Aisha travels at 44 km/h for 45 minutes, then at 50 km/h for 24 minutes. How far does she travel in total?

(b) The bus sets off from school at 4 pm. It travels 12 km to Edenfield at a speed of 30 km/h. It then travels from Edenfield to Bacup, a distance of 15 km, at a speed of 50 km/h. What time does the bus arrive in Bacup?

(a) $(44 \times 0.75) + (50 \times 0.4)$
$= 33 + 20 = 53$ km

(b) $\dfrac{12}{30} = 0.4 \Rightarrow 24$ minutes

$\dfrac{15}{50} = 0.3 \Rightarrow 18$ minutes

Arrives 4.42 pm