

AVERAGE SPEED

Vocabulary



Average Speed The average distance travelled per unit time.



To find average speed for whole journey, we need to find total distance travelled and total time taken, then divide the total distance travelled by the total time taken.

$$\text{Average speed} = \frac{\text{Total distance travelled}}{\text{Total time taken}}$$

1. Annie took 4 minutes to swim 200 m and another 4 minutes to run 1000 m. What is her average speed for the whole journey?

$$\begin{aligned}\text{Total distance travelled} &= 200 + 1000 \\ &= 1200 \text{ m}\end{aligned}$$

$$\begin{aligned}\text{Total time taken} &= 4 + 4 \\ &= 8 \text{ min}\end{aligned}$$

$$\begin{aligned}\text{Average speed} &= \frac{1200}{8} \\ &= 150 \text{ m/min}\end{aligned}$$

Her average speed for the whole journey is 150 m/min.

2. Joe drives for 3 hours at a speed of 60 km/h and another 2 hours at a speed of 70 km/h. What is his average speed for the whole journey?

$$\begin{aligned}\text{Total distance travelled} &= 3 \times 60 + 2 \times 70 \\ &= 320 \text{ km}\end{aligned}$$

$$\begin{aligned}\text{Total time taken} &= 3 + 2 \\ &= 5 \text{ h}\end{aligned}$$

$$\begin{aligned}\text{Average speed} &= \frac{320}{5} \\ &= 64 \text{ km/h}\end{aligned}$$

His average speed for the whole journey is 64 km/h.