Arithmetic



Speed Distance Time



- 1. Calculate the average speed of the following journeys, in km/h:
 - (a) John travelled 160 km in 2 hours.
 - (b) Pat drove 200 km in 4 hours.
 - (c) Mary travelled 180 km in 3 hours.
 - (d) A car travels 90 km in 1 hour.
 - (e) Susan travelled 35 km in $\frac{1}{2}$ hour.
 - (f) A train travels 200km in $1\frac{1}{2}$ hours.
 - (g) A plane flies 750 km in 90 minutes.
 - (h) Tim drives 45 km in 30 minutes.
 - (i) Jane cycles 30 km in 45 minutes.
 - (j) A bird flies 8 km in 15 minutes.
 - (k) Chris travels 75 km in 1 hour and 15 minutes.
 - (l) Ciara travelled 300 km in 2 hours and 30 minutes.
 - (m) James drives 500km in 4 hrs and 45 minutes.
 - (n) Jean walked 30km in 5 hours and 20 minutes.
- 2. Calculate the time taken to complete the following journeys, presenting your answer in hours and minutes:
 - (a) Mark drives 200 km at an average speed of 100 km/h.
 - (b) Zara walks 20 km, walking at an average speed of 5 km/h.
 - (c) Phil cycles 30 km at an average speed of 20 km/h.
 - (d) Ellen travels 75 km at an average speed of 60 km/h.
 - (e) Luke runs 21 km at an average speed of 12 km/h.
 - (f) Lucy travelled 160 km at an average speed of 60 km/h.
- 3. Calculate the distance travelled in the following journeys, presenting your answer in kilometres.
 - (a) John cycles at an average speed of 25 km/h for 2 hours.
 - (b) Sine ad drives for 3 hours at an average speed of 100 km/h.
 - (c) Sarah travels at an average speed of 50 km/h for 2 hours and 30 minutes.



- (d) Ralph walks for 1 hour and 20 minutes at an average pace of 6 km/h.
- (e) Eva drives at an average speed of 80 km/h for 3 hours and 45 minutes.
- (f) Charles travels for 25 minutes at an average speed of 48 km/h.
- 4. A car leaves Limerick at 10.00 am and arrives in Dublin at 12.30 pm. If it is 200 km from Limerick to Dublin, what was the average speed of the journey?
- 5. Jim leaves his house at 9.30 am to walk to the city, which is 15 km away. If he walks at an average speed of 6 km/h, at what time will he reach the city?
- 6. A plane departs London airport at 6.00 pm, and lands in New York at 12.15 am. If the plane flies at an average speed of 900 km/h, what is the distance from London to New York?
- 7. A train leaves Cork train station at 15.00 hrs and arrives at Dublin train station at 17.40 hrs. If it is 270 km form Cork station to Dublin station, what was the average speed of the train?
- 8. Jean and Mary are both driving the same route, to a destination that is 40 km away. If Jean drives at 100 km/h and Mary drives at 80 km/h, how many minutes longer than Jean will Mary take to complete the journey?
- 9. John can run at an average speed of 12 km/h and Mark can run at an average speed of 9 km/h. Both John and Mark start running at the same time. After 20 minutes they stop. How much further has John run than Mark?
- 10. Car A and Car B set of from a starting point at the same time. They travel the same route to a destination which is 70 km away. Car A travels at an average speed of 50 km/h and Car B travels at an average speed of 45 km/h. How far will Car B have travelled by the time Car A has reached the destination?
- 11. Write the following distances in metres:
 - i. 3 km
 - ii. 5 km
 - iii. 1.5 km
 - iv. 3.25 km
 - v. $2\frac{1}{2}$ km
 - vi. 4.625 km

12. Write the following distance in kilometres:

- i. 3,000 m
- ii. 5,500 m $\,$
- iii. 1,234 m
- iv. 300 m
- 13. i. How many seconds are in 3 minutes?

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- ii. How many seconds are in 1 hour?
- iii. How many seconds are in $2\frac{1}{2}$ hours?
- 14. Express the following speeds in m/s:
 - i. 18 km/h $\,$
 - ii. 72 km/h
 - iii. 900 km/h
 - iv. 360 km/h
 - v. 54 km/h
- 15. Express the following speeds in $\rm km/h$
 - i. 50 m/s $\,$
 - ii. $10~\mathrm{m/s}$
 - iii. 25 m/s
 - iv. 150 m/s $\,$
- 16. Which is faster, 24 km/h or 10 m/s?
- 17. Which is faster, 150 km/h or 30 m/s?
- 18. Aaron runs at an average speed of 3 m/s and Tim runs at an average speed of 12 km/h. They both start running at the same time and run for 20 minutes. Who has run the bigger distance, and by how much?