

Speed, Distance and Time

Chapter 17: Speed, Distance and Time · Topic 1

Key Concept

Speed measures how fast something moves, usually in units like kilometres per hour (km/h) or metres per second (m/s).

The formula $\text{Speed} = \text{Distance} \div \text{Time}$ can be rearranged to find distance ($\text{Distance} = \text{Speed} \times \text{Time}$) or time ($\text{Time} = \text{Distance} \div \text{Speed}$).

For example, if a car travels 120 km in 2 hours, its speed is $120 \div 2 = 60$ km/h.

Understanding these relationships helps us solve real-life problems involving travel, like planning journey times or calculating average speed.

Quick Revision Notes

- $\text{Speed} = \text{Distance} \div \text{Time}$.
- Speed is measured in km/h or m/s.
- $\text{Distance} = \text{Speed} \times \text{Time}$.
- $\text{Time} = \text{Distance} \div \text{Speed}$.
- A car going 120 km in 2 hours has speed 60 km/h.
- These formulas help solve travel problems.
- We can plan journey times using them.
- Average speed uses the same formula.

Practice Questions

- 1 Calculate speed if distance is 150 km and time is 3 hours.
- 2 Calculate distance if speed is 40 km/h and time is 2 hours.
- 3 Calculate time if distance is 200 km and speed is 50 km/h.
- 4 Solve a word problem using the speed formula.
- 5 Discuss why speed matters for planning a trip.
- 6 Create your own speed, distance, time problem.