Average Speed — Unit Conversion

Core Worksheet

Worked Examples & Guided Practice

I Do (Teacher Model) Convert 72 km/h into metres per second (m/s).

We Do (Guided Practice) Convert 15 m/s into kilometres per hour (km/h).

You Do (Independent Practice) Convert 54 km/h into metres per second (m/s).

Challenge (Extension) A car travels 1800 metres in 1 minute 15 seconds. Calculate its average speed in km/h.

Practice Perfect Questions

Q1. Convert 90 km/h into m/s.

Q2. Convert 25 m/s into km/h.

Q3. Convert 36 km/h into m/s.

Q4. A runner completes a 400 m race in 50 seconds. Calculate their average speed in km/h.

Q5. Express a speed of 12 m/s in km/h.

Q6. A high-speed train travels at 300 km/h. How many metres does it travel in 1 second?

Answers & Worked Solutions

Model Solutions

- **I Do:** $72 \times \frac{1000}{3600} = 20$ m/s
- **We Do:** $15 \times \frac{3600}{1000} = 54$ km/h
- **You Do:** $54 \div 3.6 = 15$ m/s
- **Challenge:** Time $= 75$ s $\implies$ Speed $= \frac{1800}{75} = 24$ m/s $= 24 \times 3.6 = 86.4$ km/h

Practice Perfect Questions Solutions

Q1. 25 m/s

Q2. 90 km/h

Q3. 10 m/s

Q4. 8 m/s $= 28.8$ km/h

Q5. 43.2 km/h

Q6. 83.3 metres