Rates and compound units

6 questions | 12 marks

Equivalent correct methods earn the corresponding marks.

1. Convert 15 m/s to km/h. [2 marks]

$15 \times 3.6 = 54$.

Answer: 54 km/h.

2. A vehicle travels at 80 km/h for 45 minutes at constant speed. Find distance. [2 marks]

45 minutes is 0.75 h.

$80 \times 0.75 = 60$ km.

Answer: 60 km.

3. Carpet costs AUD 28 per square metre. Find the cost of 12.5 m^2. [2 marks]

$28 \times 12.5 = 350$.

Answer: AUD 350.

4. A pump delivers 2.5 L/s. Find volume delivered in 4 minutes. [2 marks]

4 minutes is 240 s.

$2.5 \times 240 = 600$ L.

Answer: 600 L.

5. A material has density 7.8 g/cm^3 and volume 20 cm^3. Find mass. [2 marks]

$7.8 \times 20 = 156$ g.

Answer: 156 g.

6. Paint covers 9 m^2 per litre. How much paint covers 45 m^2? [2 marks]

$\frac{45}{9} = 5$ L; divide area by the area-per-litre rate.

Answer: 5 L.