Unit rates

6 questions | 10 marks

Equivalent correct methods earn the corresponding marks.

1. Six kilograms cost AUD 18. Find the cost per kilogram. [1 mark]

$18 \div 6 = 3$.

Answer: AUD 3/kg.

2. A car travels 240 km in 3 hours. Find its average speed. [1 mark]

$240 \div 3 = 80$.

Answer: 80 km/h.

3. A pump moves 42 L in 7 minutes. Find its rate. [1 mark]

$42 \div 7 = 6$.

Answer: 6 L/min.

4. Three litres of juice cost AUD 8.40. Find the unit price. [2 marks]

$8.40 \div 3 = 2.80$.

Answer: AUD 2.80/L.

5. A machine makes 150 items in 12 seconds. Find the average rate. [2 marks]

$150 \div 12 = 12.5$.

Check: $12.5 \times 12 = 150$.

Answer: 12.5 items/s.

6. A 0.6 kg bag costs AUD 5.40. Find the price per kilogram and per 100 g. [3 marks]

$5.40 \div 0.6 = 9$.

100 g is one tenth of a kilogram, so divide 9 by 10.

Answer: AUD 9/kg; AUD 0.90 per 100 g.