Worked answers | Ratio, rates and similarity

Scale drawings/maps

6 questions | 13 marks

Equivalent correct methods earn the corresponding marks.

1. State what 1 cm represents on a $1:20\,000$ map, in metres. [2 marks]

$20\,000$ cm $=200$ m.

Answer: 200 m

2. A distance is 4.8 cm on a $1:50\,000$ map. Find its actual length. [2 marks]

$4.8\times 50\,000=240\,000$ cm $=2.4$ km.

Answer: 2.4 km

3. Drawn at $1:200$, what length represents a 14 m wall? [2 marks]

14 m $=1\,400$ cm.

$1\,400\div 200=7$ cm.

Answer: 7 cm

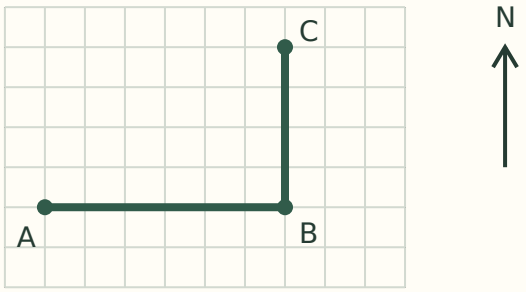
4. A model is 18 cm long and represents a 9 m vehicle. Find the scale. [2 marks]

9 m $=900$ cm.

Scale $18:900=1:50$.

Answer: $1:50$

5. On the supplied map, find only the actual distance A-B. [2 marks]



Each square is 1 cm on the map.
Scale 1 : 50 000

A-B is six 1 cm squares.

$6 \times 0.5 = 3$ km.

Answer: 3 km

6. A plan marked $1:100$ is enlarged so every printed length doubles. What is its new scale? [3 marks]

An original 1 cm now becomes 2 cm but still represents 100 cm.

New scale $2:100 = 1:50$.

Answer: $1:50$