Proportion/scaling of objects

6 questions | 13 marks

Equivalent correct methods earn the corresponding marks.

1. A 1:200 plan shows a 6 cm wall. Find real length. [2 marks]

6×200=1200 cm=12 m.

Answer: 12 m

2. A 1:25 model boat is 32 cm long. Find real length. [2 marks]

32×25=800 cm=8 m.

Answer: 8 m

3. Enlarge a 15 cm length by factor 1.2. Find the new length. [2 marks]

15×1.2=18.

Answer: 18 cm

4. A 9 m wall is drawn as 18 cm. Find the scale. [2 marks]

900 cm compared with 18 cm gives 18:900=1:50.

Answer: 1:50

5. Similar triangles have matching sides 4 and 10 cm. A 7 cm side of the smaller matches what larger length? [2 marks]

k=10/4=2.5.

7×2.5=17.5.

Answer: 17.5 cm

6. A 20 by 12 cm picture is reduced to width 15 cm without distortion. Find height and justify your factor. [3 marks]

k=15/20=0.75 for all corresponding lengths.

12×0.75=9.

Answer: 9 cm