Scale Drawings

Grade 3 topic · Foundation and Higher · Edexcel and AQA

How to use this pack
20 questions that get harder as you go. Foundation students: aim for Questions 1–15 (40 marks) and have a go at the rest. Higher students: complete all 20. Show your working on the lines and write your final answer on the answer line, then mark yourself with the answers at the back. Diagrams are not drawn accurately. Total: 61 marks.

Warm-up

1 A map has a scale of 1 : 100. A wall is 5 cm long on the map. Work out its real length in metres. **[2 marks]**

Answer _____

2 A plan has a scale of 1 cm to 2 m. A room is 11 cm long on the plan. Work out its real length. **[2 marks]**

Answer _____

3 A map has a scale of 1 : 100. A wall is 14 cm long on the map. Work out its real length in metres. **[2 marks]**

Answer _____

4 A plan has a scale of 1 cm to 2 m. A room is 5 cm long on the plan. Work out its real length. **[2 marks]**

Answer _____

5 A map has a scale of 1 : 100. A wall is 6 cm long on the map. Work out its real length in metres. **[2 marks]**

Answer _____

Core

6 A map has a scale of 1 : 50000. The real distance between two towns is 3.5 km. How far apart are they on the map, in cm? **[3 marks]**

Answer _____

7 A map has a scale of 1 : 50000. Two villages are 3 cm apart on the map. Work out the real distance in kilometres. **[3 marks]**

Answer _____

8 A map has a scale of 1 : 25000. The real distance between two towns is 2 km. How far apart are they on the map, in cm? **[3 marks]**

Answer _____

9 A map has a scale of 1 : 50000. Two villages are 12 cm apart on the map. Work out the real distance in kilometres. **[3 marks]**

Answer _____

10 A map has a scale of 1 : 25000. The real distance between two towns is 3.5 km. How far apart are they on the map, in cm? **[3 marks]**

Answer _____

Stretch

11 A model boat is built to a scale of 1 : 20. The model is 4 cm long. Work out the length of the real boat in metres. **[3 marks]**

Answer _____

12 A model boat is built to a scale of 1 : 20. The model is 9 cm long. Work out the length of the real boat in metres. **[3 marks]**

Answer _____

13 A model boat is built to a scale of 1 : 50. The model is 13 cm long. Work out the length of the real boat in metres. **[3 marks]**

Answer _____

14 A model boat is built to a scale of 1 : 20. The model is 15 cm long. Work out the length of the real boat in metres. **[3 marks]**

Answer _____

15 A model boat is built to a scale of 1 : 20. The model is 11 cm long. Work out the length of the real boat in metres. **[3 marks]**

Answer _____

Challenge

16 The scale of a map is 1 : 25 000. A field has an area of 6 cm² on the map. Work out the real area in m². **[5 marks]**

Answer _____

17 On a map, 4 cm represents 10 km. Write the scale in the form 1 : n. **[4 marks]**

Answer _____

18 A scale drawing has a scale of 1 : 20. A shed is 3.2 m long in real life. Work out its length on the drawing, in cm. **[3 marks]**

Answer _____

19 A map has a scale of 1 : 50 000. A walker travels 12 km. How many cm on the map does this represent? **[4 marks]**

Answer _____

20 A rectangle is drawn to a scale of 1 : 200. On the drawing it is 5 cm by 3 cm. Work out its real area in square metres. **[5 marks]**

Answer _____