Map scales

ANSWERS

1 **Scale: 1 cm represents 3 km**

Two campsites are 6 cm apart on the map. Work out the real distance between them.

Map (cm)	Real (km)
1	3
6	18

× 6

2 **Scale: 1 cm represents 4 km**

A beach is 7.5 cm long on the map. Work out the real length of the beach.

Map (cm)	Real (km)
1	4
7.5	30

× 7.5

3 Notice the change! **Scale: 1 cm represents 5 km**

Two harbours are 35 km apart in real life. Work out the distance on the map.

Map (cm)	Real (km)
1	5
7	35

× 7

4 **Scale: 1 cm represents 4 km**

A canal is 18 km long. How long is it on the map?

Map (cm)	Real (km)
1	4
4.5	18

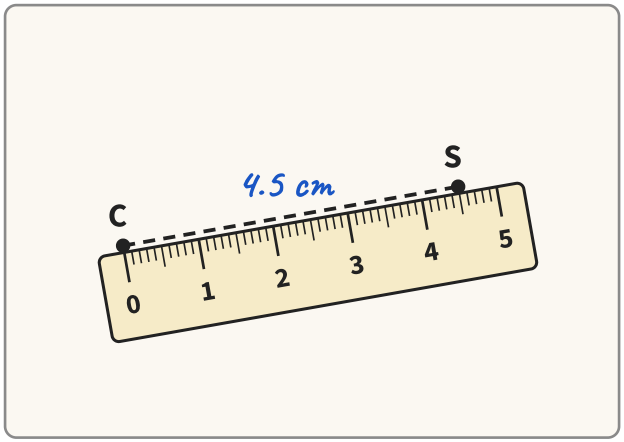
× 4.5

Map scales

ANSWERS

5 **Scale: 1 cm represents 2 km**

Use the ruler on the map to measure from the castle C to the station S. Work out the real distance.

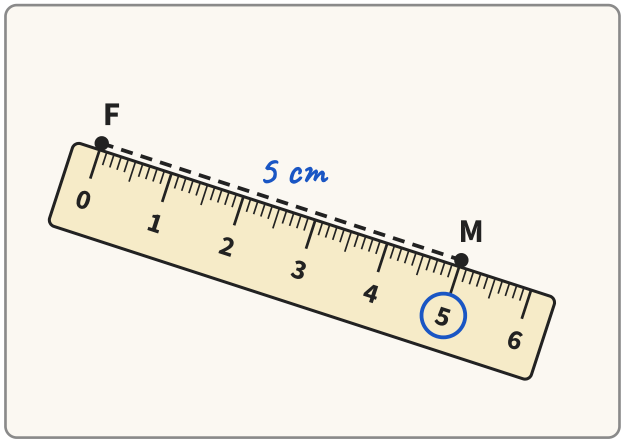


Map (cm)	Real (km)
1	2
4.5	9

× 4.5

6 **Scale: 1 cm represents 3 km**

Use the ruler on the map to measure from the farm F to the mill M. Work out the real distance.



Map (cm)	Real (km)
1	3
5	15

× 5

7

A map has a scale of 1 : 20 000. (a) What does 1 cm on the map represent, in metres? (b) A trail is 7 cm long on the map. How long is it in real life, in kilometres?

(a) 1 cm represents

200 m

(b) The trail

1400 m, so 1.4 km

8 **Scale: 1 cm represents 6 km**

A river is 15 km long. Leo says it is 90 cm long on the map. Explain his mistake, then find the right length.

Leo's mistake

He multiplied. Real life to map: divide.

Length on the map

15 ÷ 6 = 2.5 cm

Map scales *further practice*

ANSWERS

9 Scale: 1 cm represents 2 m

This is a plan of a school. A hall is 9.5 cm long on the plan. Work out the real length of the hall.

Map (cm)	Real (m)
1	2
9.5	19

× 9.5

10 Scale: 1 cm represents 25 km

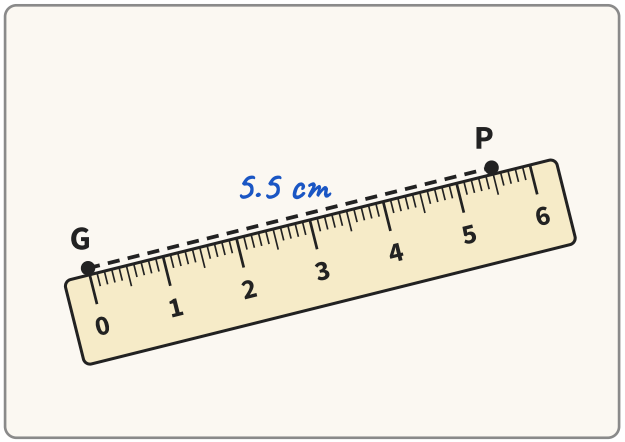
Two cities are 150 km apart in real life. How far apart are they on the map?

Map (cm)	Real (km)
1	25
6	150

× 6

11 Scale: 1 cm represents 50 m

The map shows a park. Use the ruler to measure from the gate G to the pond P.
Work out the real distance in metres.

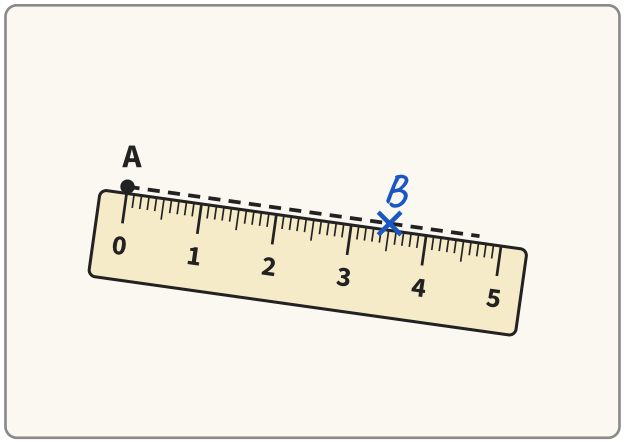


Map (cm)	Real (m)
1	50
5.5	275

× 5.5

12 Scale: 1 cm represents 4 km

B is 14 km from A along the dashed line.
Use the ruler to mark B on the map.



Map (cm)	Real (km)
1	4
3.5	14

× 3.5

Map scales *further practice*

ANSWERS

13

A map has a scale of 1 : 100 000. A road is 4.5 cm long on the map. How long is the road in real life, in kilometres?

1 cm represents

100 000 cm = 1000 m = 1 km

The road

4.5 km

14

A map has a scale of 1 : 50 000. Two villages are 3 km apart in real life. How far apart are they on the map?

1 cm represents

500 m

3 km = 3000 m, so

3000 ÷ 500 = 6 cm

15

On a map, a line 4 cm long represents 36 km. Complete the scale: 1 cm represents ___ km.

Working

36 ÷ 4

Scale

1 cm represents 9 km

16

Priya says a scale of 1 : 10 000 means 1 cm on the map represents 10 000 m. Explain her mistake. What does 1 cm represent?

Priya's mistake

It is 10 000 cm, not 10 000 m.

1 cm represents

10 000 ÷ 100 = 100 m