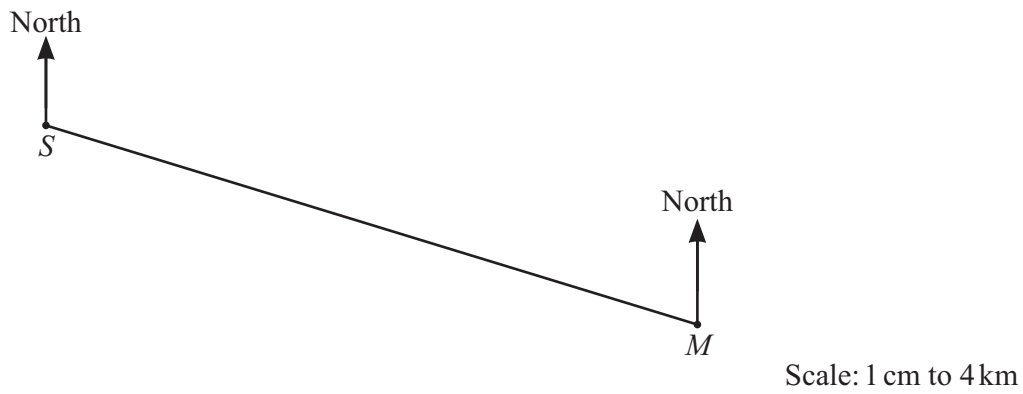


- 1 The scale drawing shows the positions of Shakti's house, S , and Mairi's house, M , on a map. The scale is 1 cm represents 4 km.



Measure the bearing of M from S .

..... [1]

[Total: 1]

- 2 The scale drawing shows the positions of two towns, P and Q . The scale is 1 cm represents 4 km.



Scale: 1 cm to 4 km

- (a) Find the actual distance between town P and town Q .

..... km [2]

- (b) Measure the bearing of town Q from town P .

..... [1]

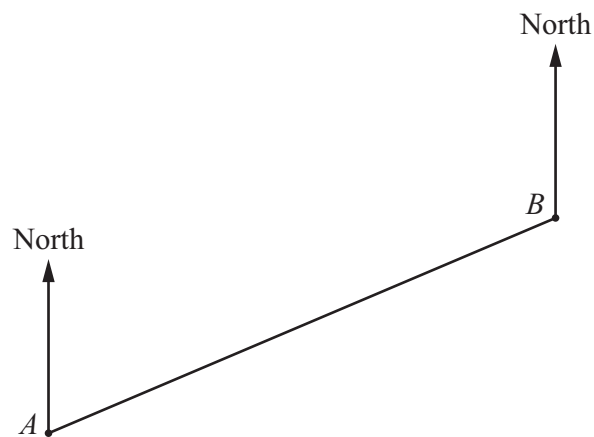
- (c) Town X is 28 km from town P on a bearing of 140° .

On the scale drawing, mark the position of town X .

[2]

[Total: 5]

- 3 The scale drawing shows the positions of house A and house B .
The scale is 1 centimetre represents 12 metres.



Scale: 1 cm to 12 m

- (a) Measure the bearing of house *A* from house *B*.

..... [1]

- (b) Another house, *C*, is 102 metres from house *B* on a bearing of 157° .

On the scale drawing, mark the position of house *C*.

[3]

[Total: 4]

- 4 The scale drawing shows the position of town *R* on a map.
The scale is 1 centimetre represents 5 kilometres.



Scale : 1 cm to 5 km

- (a) Town *M* is 36 km from *R* on a bearing of 163° .

Mark the position of *M* on the map.

[2]

- (b) Town *K* is on a bearing of 312° from *R*.

Work out the bearing of *R* from *K*.

..... [2]

[Total: 4]

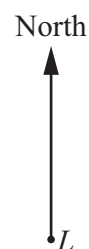
- 5 On a map, a lake has an area of 32 cm^2 .
The scale of the map is 1 : 24 000.

Calculate the actual area of the lake.
Give your answer in km^2 .

..... km^2 [2]

[Total: 2]

- 6 The scale drawing shows the positions of Kendra's house, K , and Latika's house, L , on a map.



- (a) Jesminder's house, J , is on a bearing of 036° from K and on a bearing of 284° from L .

Mark the position of J on the map.

[2]

- (b) The actual distance between K and L is 9600 metres.
Kendra walks from K to L at a constant speed of 4.5 km/h.
She leaves K at 10 15.

Work out the time she arrives at L .

..... [3]

[Total: 5]

- 7 A circular garden has diameter 11.4 m.

Draw the garden accurately, using a scale of 1 cm represents 1.5 m.

Scale: 1 cm to 1.5 m

[2]

[Total: 2]

- 8** The scale of a map is 1 : 10 000 000.
On the map, the area of Slovakia is 4.9 cm^2 .

Calculate the actual area of Slovakia.
Give your answer in square kilometres.

..... km^2 [3]

[Total: 3]

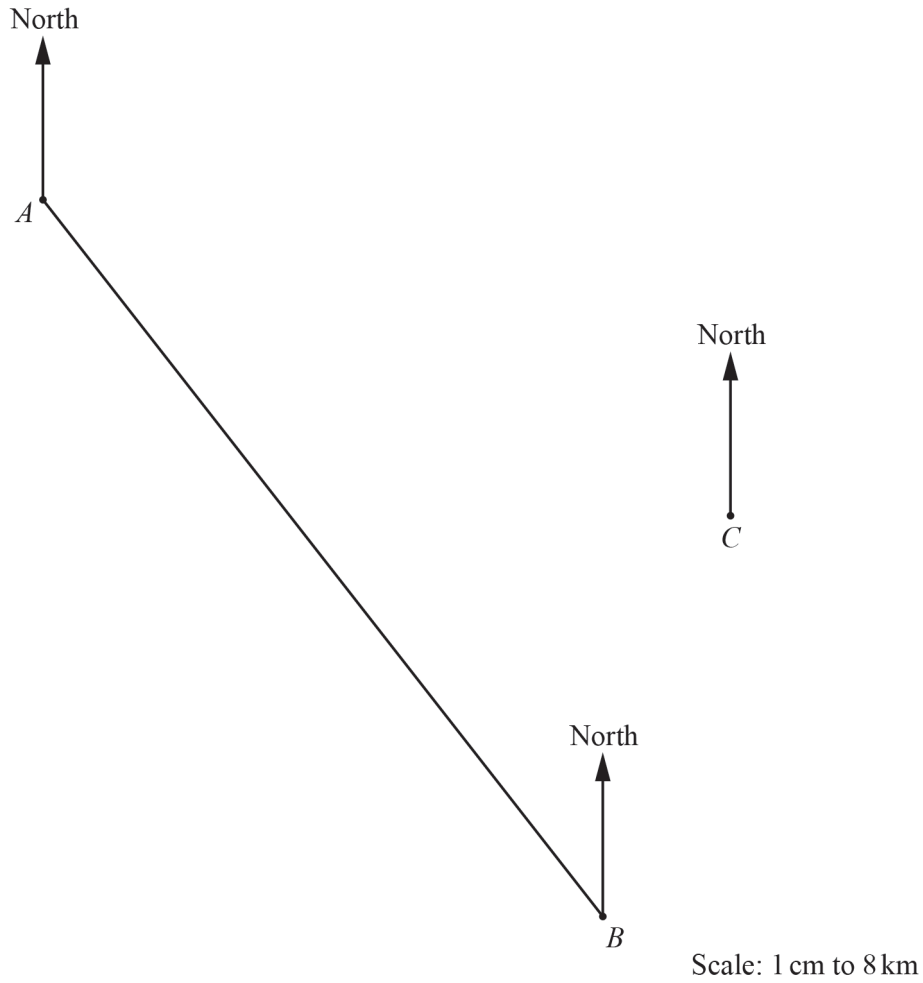
- 9** On a map with scale 1 : 25 000, the area of a lake is 33.6 square centimetres.

Calculate the actual area of the lake, giving your answer in square kilometres.

..... km^2 [2]

[Total: 2]

- 10** The scale drawing shows town *A*, town *B* and town *C* on a map.
There is a straight road between town *A* and town *B*.
The scale of the map is 1 centimetre represents 8 kilometres.



- (a) Measure the bearing of town *A* from town *B*.

..... [1]

- (b) Write the scale of the map in the form 1 : *n*.

1 : [1]

- (c) A straight road from town *C* is on a bearing of 246° .
It meets the road from town *A* to town *B* at point *X*.

On the map, draw the road from town *C* to point *X*.
Label the position of *X*.

[1]

- (d) Josie is at point X at 10 50.
She arrives at town B 37 minutes later.

Work out the time that she arrives at town B .

..... [1]

[Total: 4]

- 11 Point B is 36 km from point A on a bearing of 140° .

- (a) Using a scale of 1 centimetre to represent 4 kilometres, mark the position of B .



Scale: 1 cm to 4 km [2]

- (b) (i) Point C is 28 km from A and 20 km from B .
The bearing of C from A is less than 140° .

Using a ruler and compasses only, construct triangle ABC .
Show all your construction arcs.

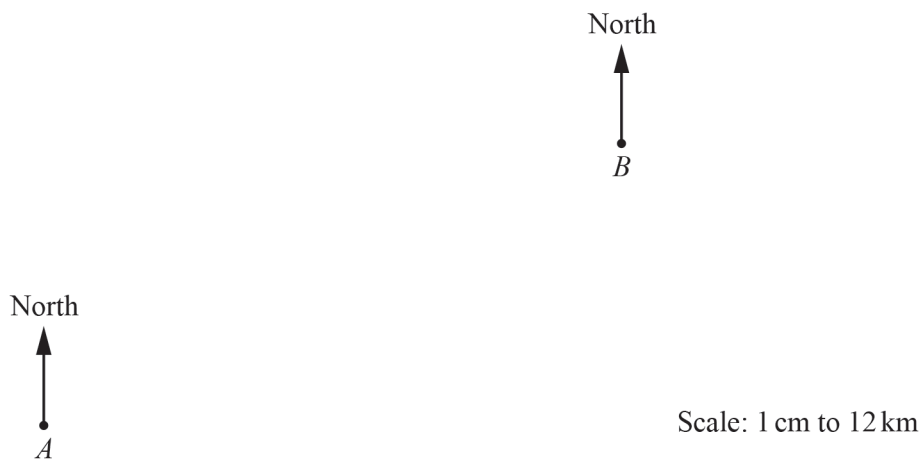
[3]

- (ii) Measure angle ACB .

Angle $ACB = \dots\dots\dots$ [1]

[Total: 6]

- 12 The scale drawing shows the positions of town A and town B .
The scale is 1 centimetre represents 12 kilometres.



Measure the bearing of town B from town A .

$\dots\dots\dots$ [1]

[Total: 1]