

Topic Test 1 (20 minutes)

Scale diagrams and bearings - Higher

- 1 A plane flies on a bearing of 056°
It turns clockwise to fly due South.

Circle the angle through which the plane must turn.

[1 mark]

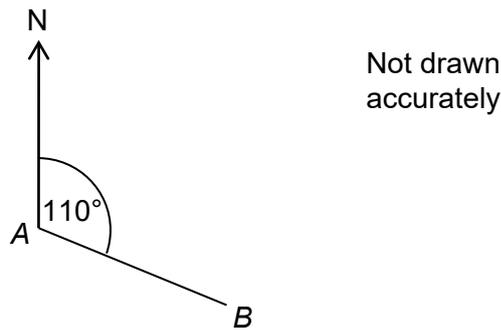
124°

146°

236°

304°

- 2 The bearing of B from A is 110°



Circle the bearing of A from B .

[1 mark]

070°

200°

250°

290°

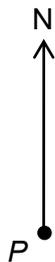
- 3 1 inch = 2.54 cm
1 mile = 1.6 km

A map has a scale of 1 inch represents 1 mile

Use the given conversions to show that 1 cm on the map represents approximately 0.6 km

[2 marks]

4 The diagram shows the position of a ship (P).



4 (a) A lighthouse (L) is 45 km from P on a bearing of 060°

Draw a scale diagram to show the position of L .

Use a scale of 1 cm represents 5 km

[2 marks]

4 (b) Write down the bearing of P from L .

[1 mark]

Answer _____ °

4 (c) The ship sails on a bearing of 120° from its original position until it is at T , due South of L .

How far is T from L ?

You may use a sketch.

You **must not** use a scale diagram.

[3 marks]

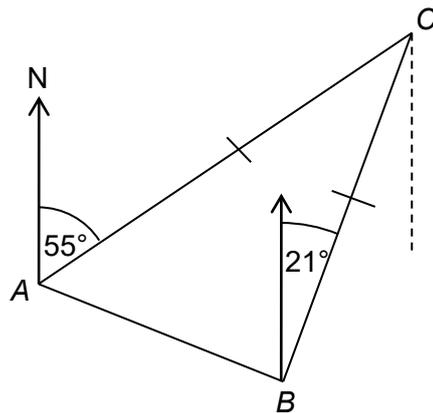
Answer _____ km

5 The diagram shows the positions of three villages A , B and C .

The bearing of C from

- A is 055°
- B is 021°

$$AC = BC$$



Not drawn accurately

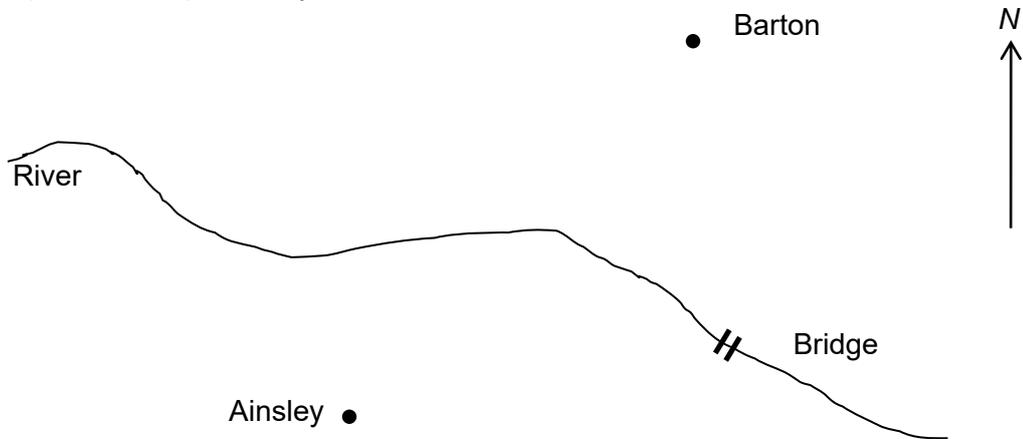
Work out the bearing of B from A .

You **must** show your working which may be on the diagram.

[4 marks]

Answer _____ °

6 Here is part of a map used by walkers.



Scale 1 : 150 000

To walk from Ainsley to Barton involves a climb of 600 metres.

6 (a) George usually walks 6 km each hour.

Estimate the time it takes him to walk from Ainsley to Barton.
He crosses the river using the bridge.

Assume

- he walks in a straight line from Ainsley to the bridge and from the bridge to Barton
- he takes 1 minute longer for every 10 metres he climbs.

[4 marks]

Answer _____ hours

6 (b) Comment on how each assumption affects the accuracy of your estimate.

[2 marks]
