Solutions by
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GCSE (9-1) Grade 4

Bearings

Instructions

Use **black** ink or ball-point pen.
Fill in the boxes at the top of this page with your name.
Answer **all** questions.
Answer the questions in the spaces provided
- there may be more space than you need.

Show all your working out

Information

The marks for **each** question are shown in brackets.
Use this as a guide as to how much time to spend on each question.
Questions labelled with an **asterisk** (*) are ones where the quality of your written communication will be assessed

Advice

Read each question carefully before you start to answer it
Attempt every question
Check your answers if you have time at the end

1.

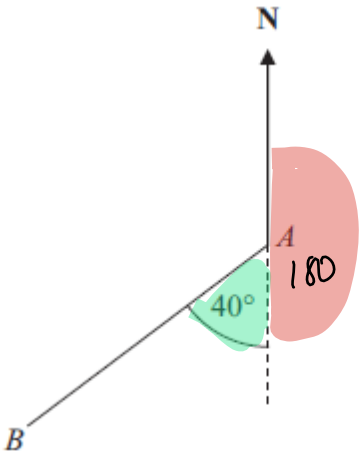


Diagram **NOT** accurately drawn

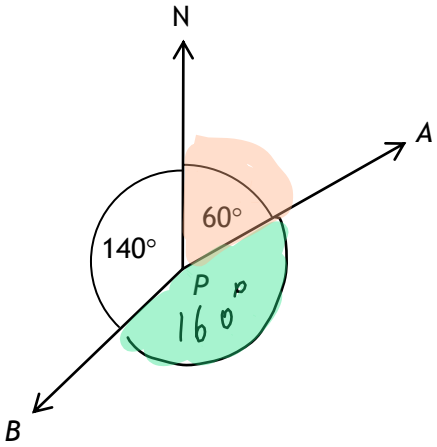
Work out the bearing of B from A.

40 + 180 = 220°

.....°

(2 marks)

2.



(a) Write down the bearing of A from P.

60°

.....°

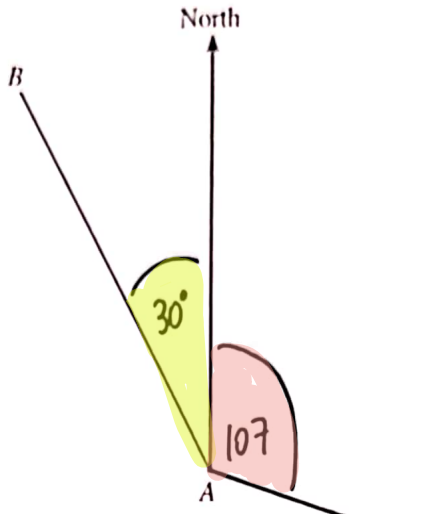
(b) Work out the bearing of B from P.

60 + 160 = 220°

.....°

(3 marks)

3.



(a) Measure and write down the bearing of B from A.

360 - 30 = 330°

.....°

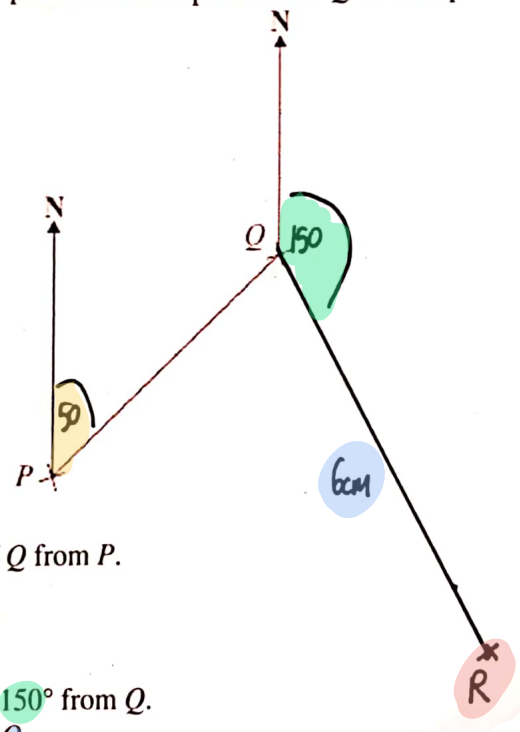
(1)

(b) On the diagram, draw a line on a bearing of 107° from A.

(1)

(2 marks)

4. The diagram shows the position of two ports P and Q on a map.



(a) Measure the bearing of Q from P.

050

.....°

(1)

A rock R is on a bearing of 150° from Q.
On the map R is 6 cm from Q.

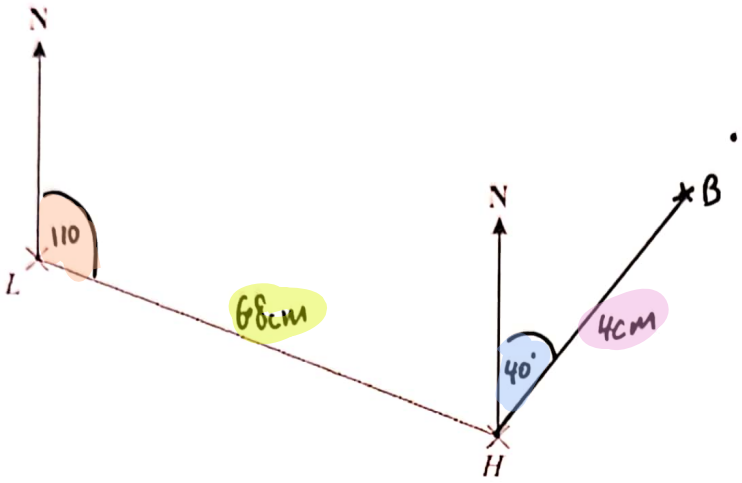
(b) Mark the position of R with a cross (×) and label it R.

(2)

Your answer may be slightly different depending on how your questions were printed.

(3 marks)

5. The diagram shows the position of a lighthouse L and a harbour H.



Your answer may be slightly different depending on how your questions were printed.

The scale of the diagram is 1 cm represents 5 km.

(a) Work out the real distance between L and H.

6·8 x 5 = 34 ..... km

(1)

(b) Measure the bearing of H from L.

110 .....°

(1)

A boat B is 20 km from H on a bearing of 040°

(c) On the diagram, mark the position of boat B with a cross (×).

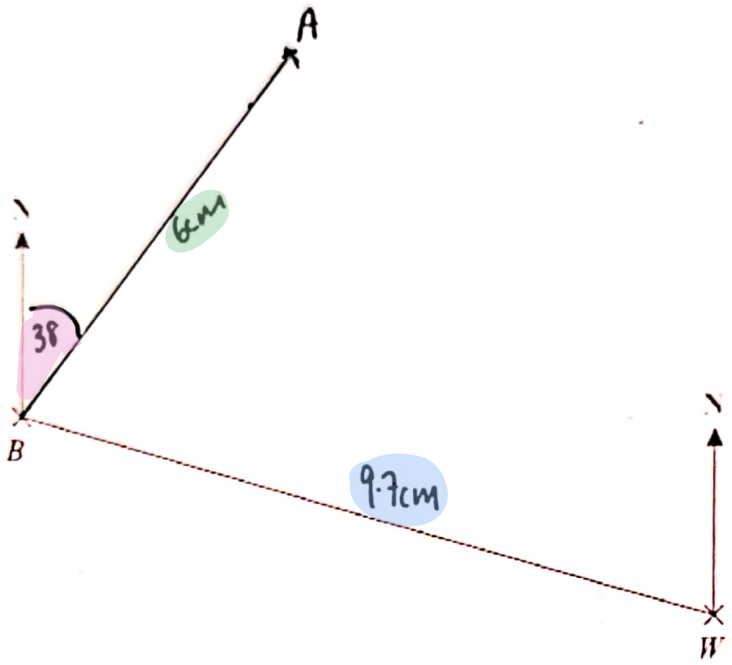
Label it B.

20km = 4cm (on the map)

(2)

(4 marks)

6. The diagram shows the positions of two villages, Beckhampton (B) and West Kennett (W).



Your answer may be slightly different depending on how your questions were printed.

Scale: 4 cm represents 1 km.

(a) Work out the real distance, in km, of Beckhampton from West Kennett.

4cm = 1km
9.7cm = 2.425km
1cm = 0.25km

2.425 ..... km

(2)

The village, Avebury (A), is on a bearing of 038° from Beckhampton.

On the diagram, A is 6 cm from B.

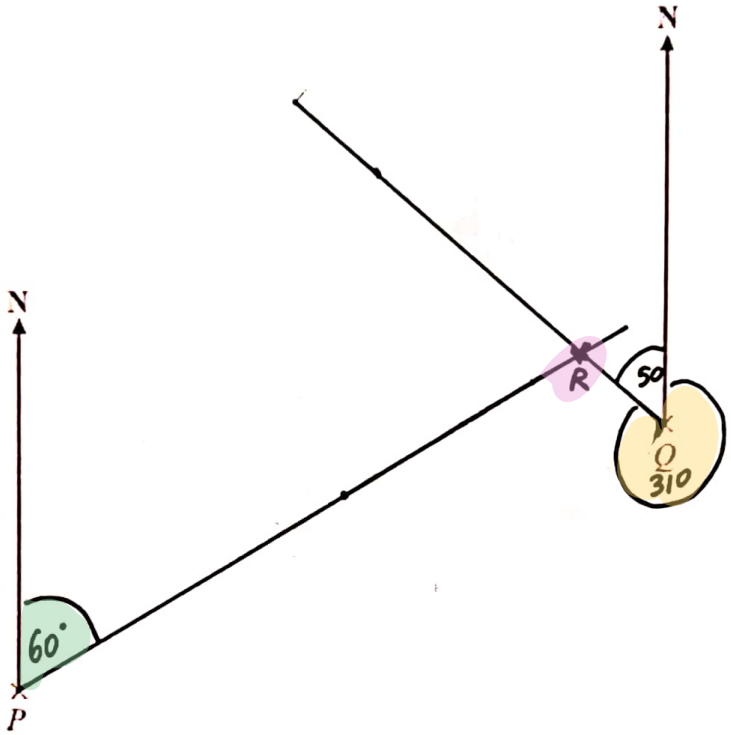
(b) On the diagram, mark A with a cross (×).
Label the cross A.

(2)

(4 marks)

7. The diagram shows the position of two boats, P and Q.

Your answer may be slightly different depending on how your questions were printed.

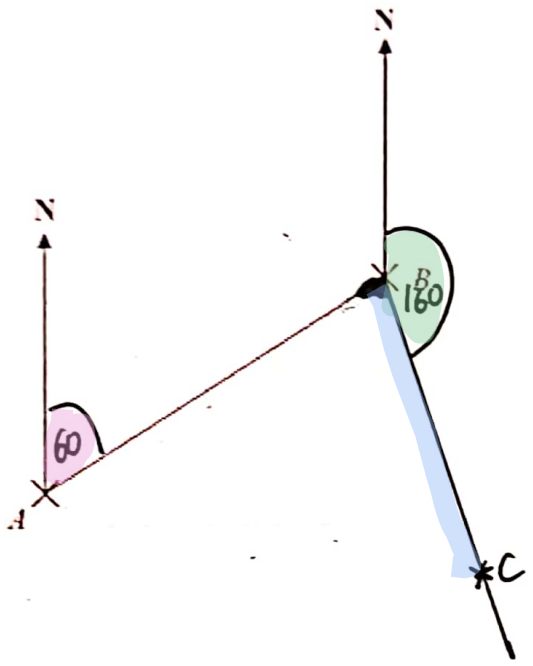


The bearing of a boat R from boat P is 060^0
The bearing of boat R from boat Q is 310^0

In the space above, draw an accurate diagram to show the position of boat R.
Mark the position of boat R with a cross (×). Label it R.

(3 marks)

8. The diagram shows the positions of two telephone masts, A and B, on a map.



(a) Measure the bearing of B from A.

060°

..... °

(1)

Another mast C is on a bearing of 160° from B.

On the map, C is 4 cm from B.

(b) Mark the position of C with a cross (×) and label it C.

(2)

(3 marks)

9. The bearing of a ship from a lighthouse is 050°

Work out the bearing of the lighthouse from the ship.

50 + 180 = 230°

.....°

(2 marks)