

# Edexcel GCSE

## Mathematics (Linear) – 1MA0

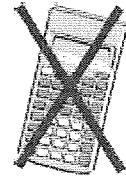
# BEARINGS

### Materials required for examination

Ruler graduated in centimetres and millimetres, protractor, compasses, pen, HB pencil, eraser.  
Tracing paper may be used.

### Items included with question papers

Nil



### Instructions

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Use black ink or ball-point pen.

Fill in the boxes at the top of this page with your name, centre number and candidate number.

Answer all questions.

Answer the questions in the spaces provided – there may be more space than you need.

Calculators may be used.

### Information

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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 – you should take particular care on these questions with your spelling, punctuation and grammar, as well as the clarity of expression.

### Advice

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Read each question carefully before you start to answer it.

Keep an eye on the time.

Try to answer every question.

Check your answers if you have time at the end.

1.

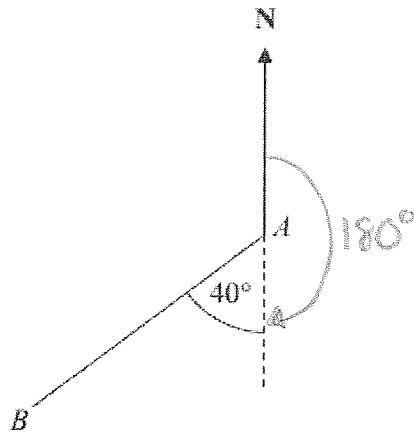


Diagram NOT accurately drawn

$180 + 40$

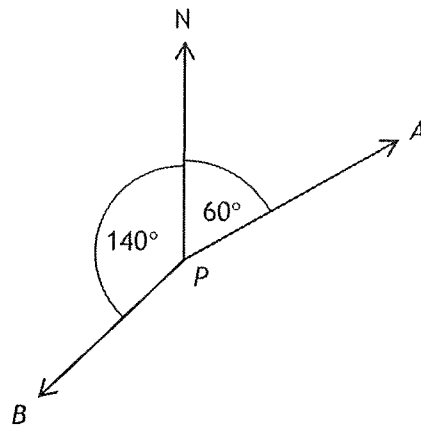
Work out the bearing of B from A.

START POINT

220°

(2 marks)

2.



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

Bearings are always 3 digits

060°

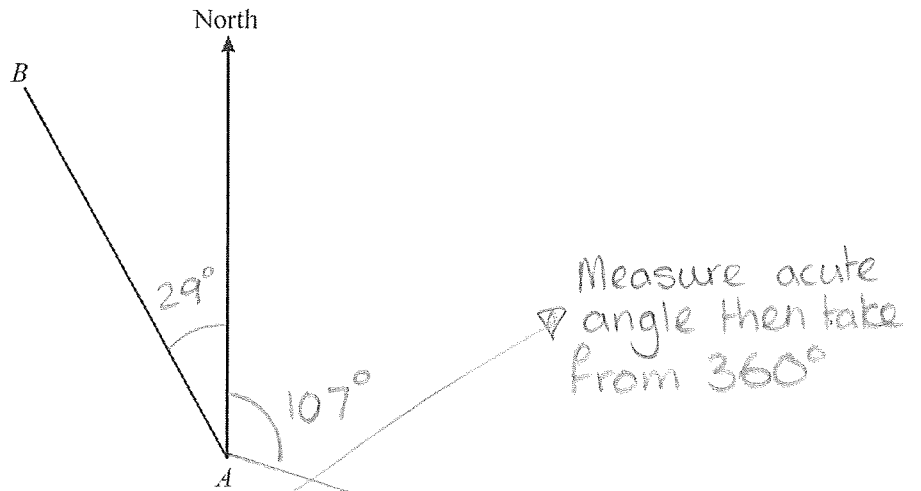
(b) Work out the bearing of B from P.

$360 - 140$

220°

(3 marks)

3.



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

$$360 - 29$$

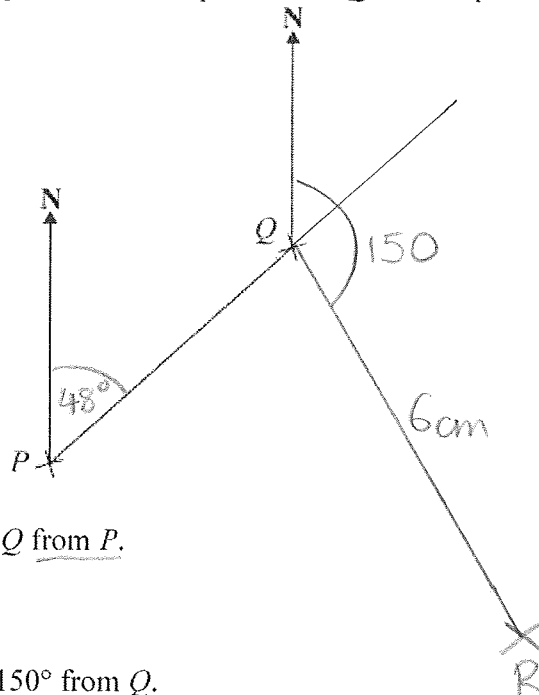
..... 331 °  
(1)

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

clockwise

(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.

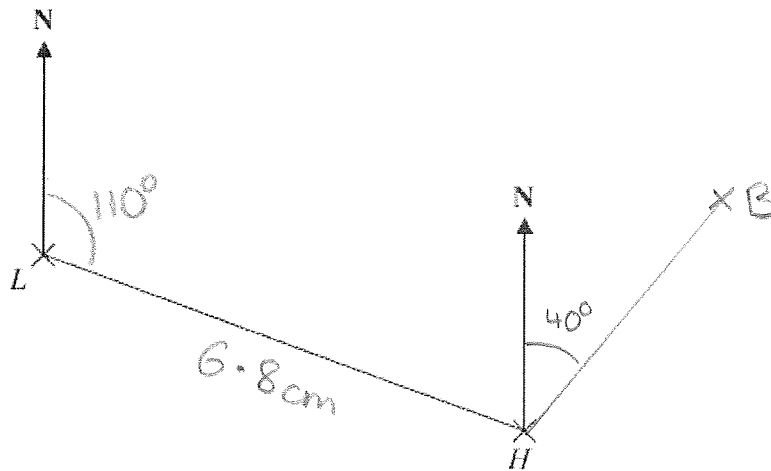
..... 048 °  
(1)

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 (x) and label it R.

(2)  
(3 marks)

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



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

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

$$6.8 \times 5 = 34 \text{ km}$$

..... 34 ..... km  
(1)

(b) Measure the bearing of  $H$  from  $L$ .

..... 110° ..... °  
(1)

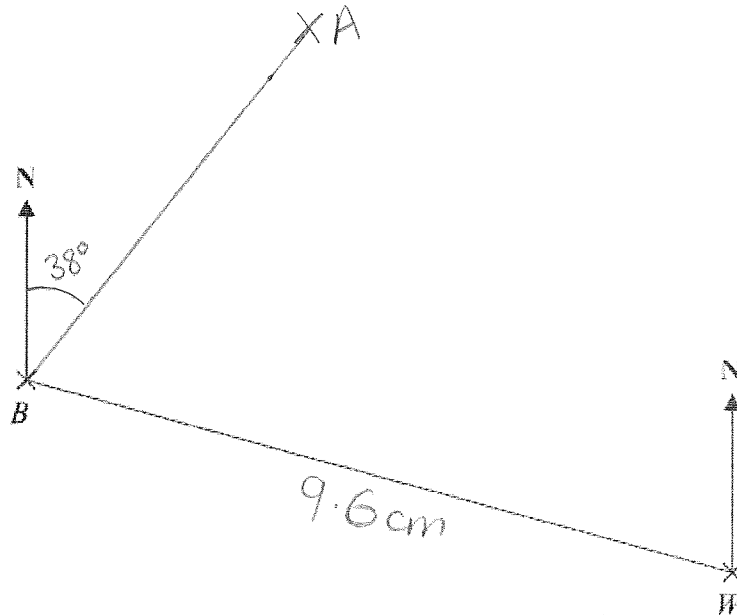
A boat  $B$  is <sup>= 4 cm</sup> 20 km from  $H$  on a bearing of  $040^\circ$

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

Label it  $B$ .

(2)  
(4 marks)

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



Scale: 4 cm represents 1 km.

*This is a tricky scale!*

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

$$9.6 \div 4 = 2.4 \text{ km}$$

$$\begin{array}{r} 2.4 \\ 4 \overline{) 9.6} \end{array}$$

..... 2.4 km  
(2)

The village, Avebury ( $A$ ), is on a bearing of  $038^\circ$  from Beckhampton.

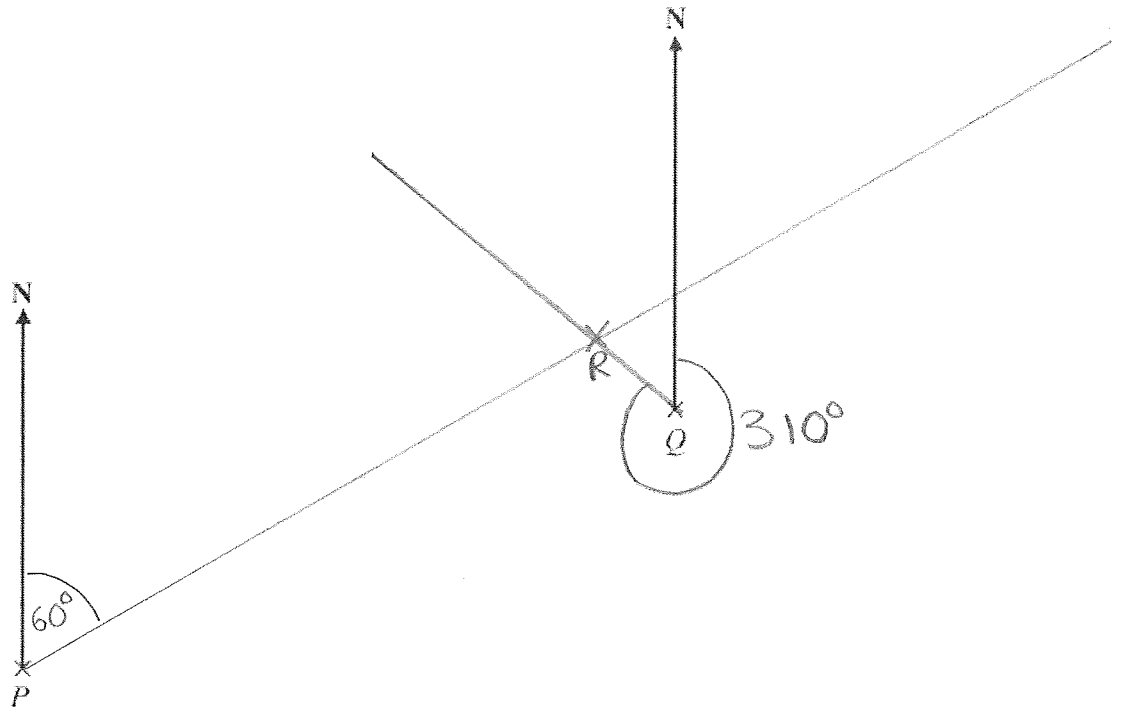
On the diagram,  $A$  is 6 cm from  $B$ .

(b) On the diagram, mark  $A$  with a cross ( $\times$ ).  
Label the cross  $A$ .

(2)

(4 marks)

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

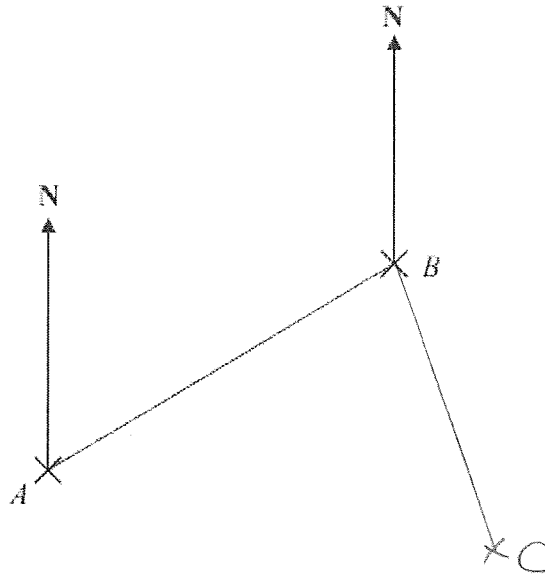


The bearing of a boat  $R$  from boat  $P$  is  $060^\circ$  → Draw this line extra long  
 The bearing of boat  $R$  from boat  $Q$  is  $310^\circ$  → Easier to draw as  $50^\circ$  anticlockwise  
 The point where lines cross is  $R$

In the space above, draw an accurate diagram to show the position of boat  $R$ .  
 Mark the position of boat  $R$  with a cross ( $\times$ ). 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  $A$ .

059°  
.....°  
(1)

Another mast  $C$  is on a bearing of  $160^\circ$  from  $B$ .

On the map,  $C$  is 4 cm from  $B$ .

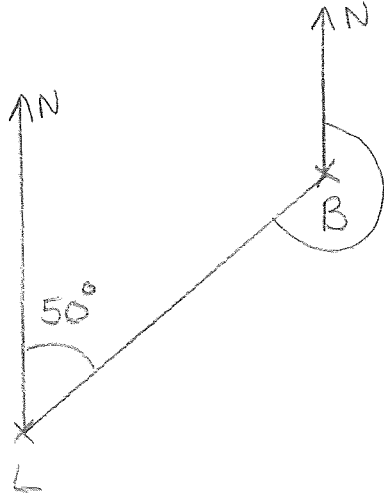
(b) Mark the position of  $C$  with a cross ( $\times$ ) and label it  $C$ .

(2)

(3 marks)

9. The bearing of a ship from a lighthouse is  $050^\circ$

Work out the bearing of the lighthouse from the ship.



DRAW A SKETCH!  
If accurate, you can  
measure the bearing

.....230.....°

(2 marks)

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