

Write your name here

Surname

Other names

In the style of:

**Edexcel GCSE**

Centre Number

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Candidate Number

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# Mathematics A

## Bearings

**Foundation Tier**

Past Paper Style Questions  
Arranged by Topic

Paper Reference

**1MA0/1F**

**You must have:** Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser. Tracing paper may be used.

Total Marks



### Instructions

- 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 must not be used.**

### Information

- The total mark for this paper is 100
- 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.

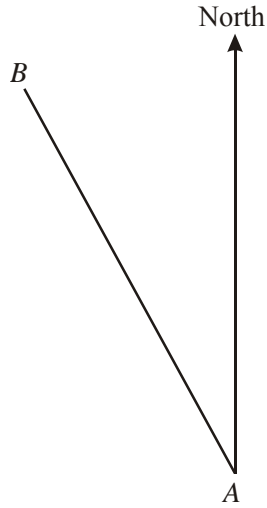
### Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ►



1.



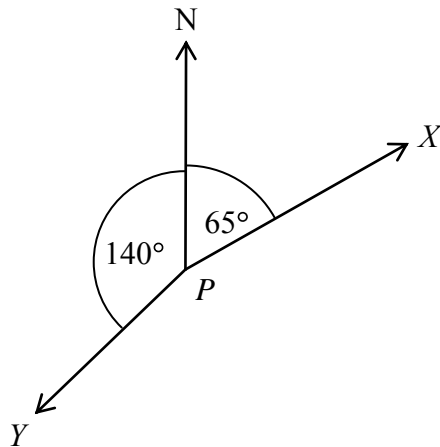
(a) Measure and write down the bearing of  $B$  from  $A$ .

.....<sup>o</sup>  
(1)

(b) On the diagram, draw a line on a bearing of  $103^\circ$  from  $A$ .

(1)  
(Total 2 marks)

2.



(a) Write down the bearing of  $X$  from  $P$ .

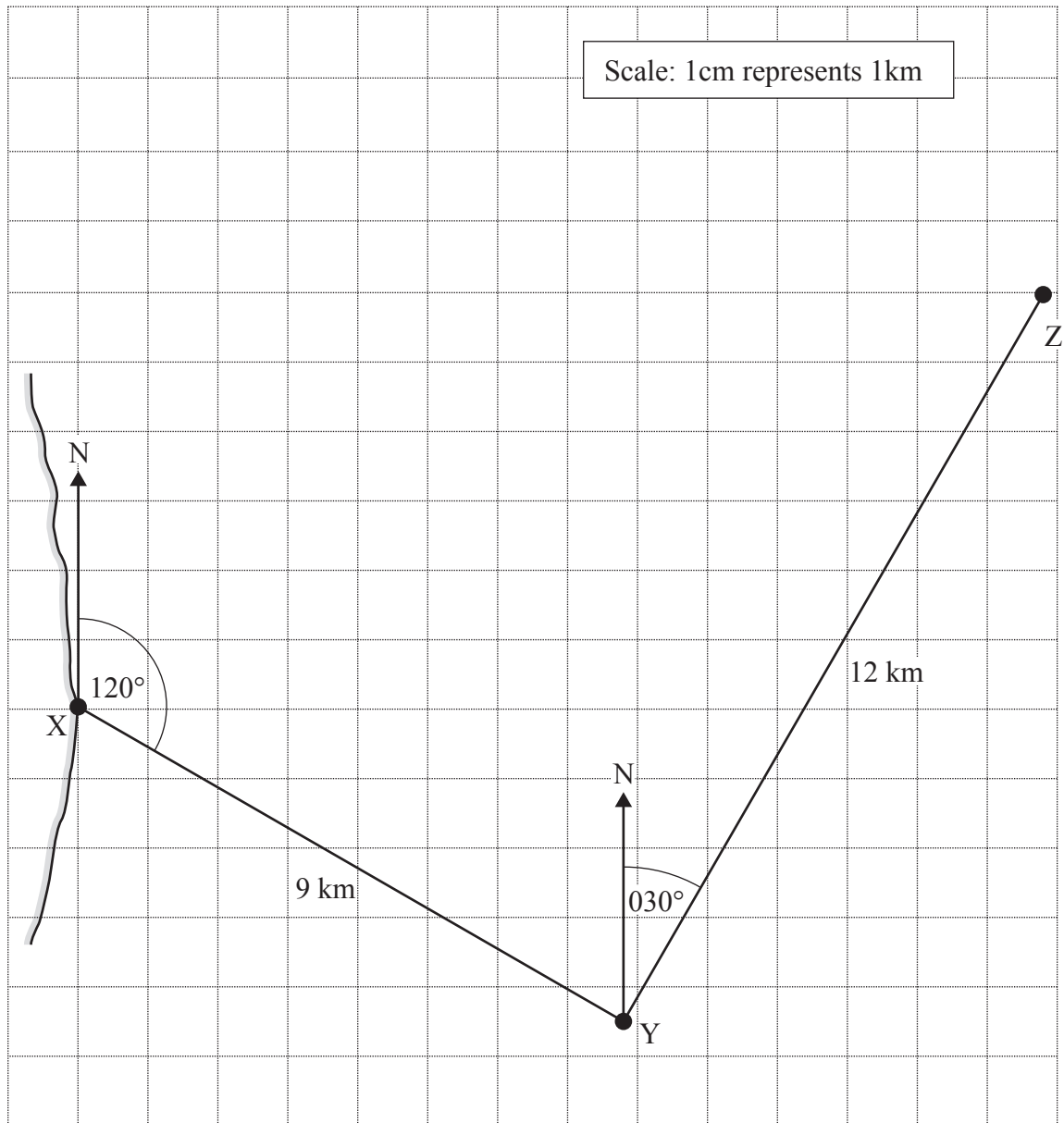
.....<sup>o</sup>  
(1)

(b) Work out the bearing of  $Y$  from  $P$ .

.....<sup>o</sup>  
(2)



3. A ship leaves port X and travels 9 km on a bearing of  $120^\circ$  to point Y. The ship then turns and travels 12 km on a bearing of  $030^\circ$  to point Z. This journey is shown on the scale drawing below.



The ship then turns and travels directly back from Z to X.

Use a ruler and protractor to work out the distance and bearing of the journey from Z to X

Distance .....

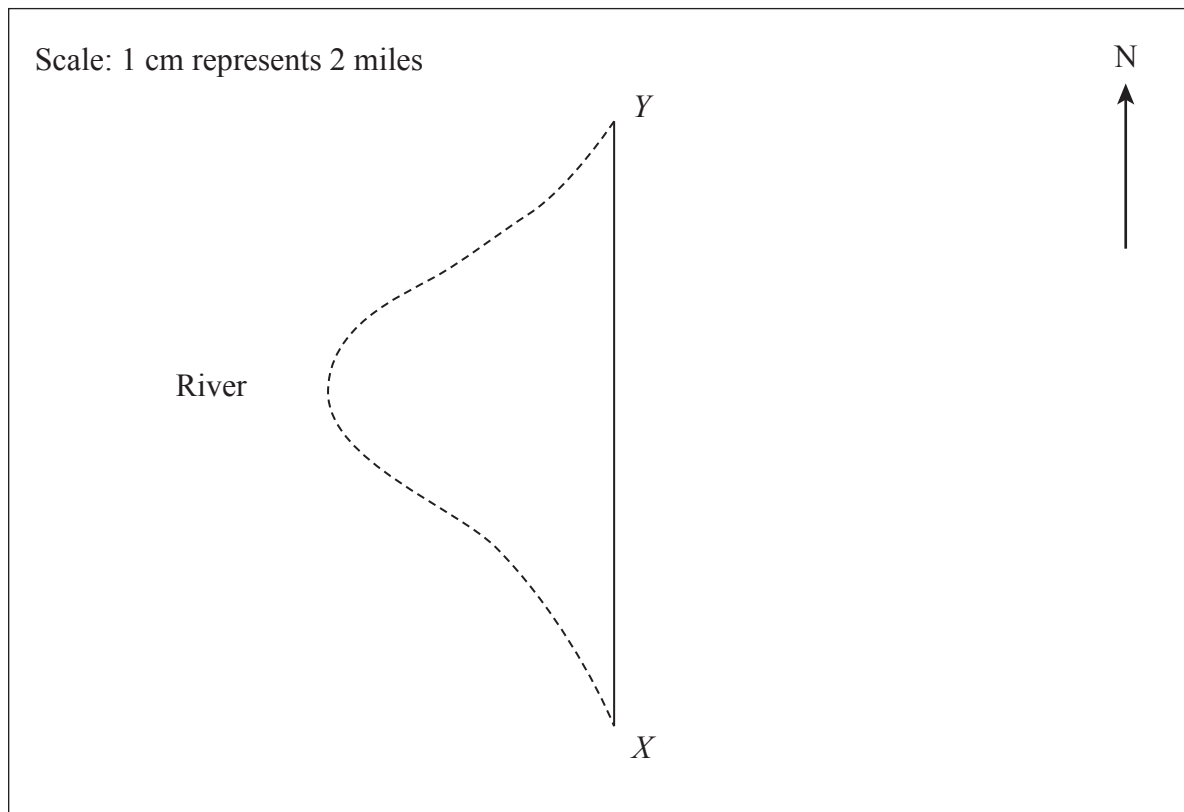
km

Bearing..... $^\circ$

(3)



4. An helicopter flies due North from  $X$  to  $Y$ .  
The distance from  $A$  to  $B$  on the river is 24 miles.



- 4 (a) How much further is it from  $X$  to  $Y$  on the river than by helicopter?

..... miles

(3)

- (b)  $Z$  is 12 miles north-east of  $A$ .

- (i) Write down the three-figure bearing of  $Z$  from  $X$ .

.....°

(1)

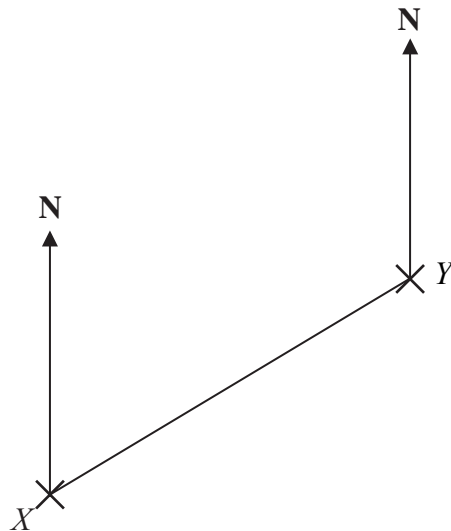
- (ii) Mark with a cross the point  $Z$  on the diagram.

(2)

(Total 6 marks)



5. The diagram shows the positions of two telephone masts,  $X$  and  $Y$ , on a map.



(a) Measure the bearing of  $Y$  from  $X$ .

.....<sup>o</sup>  
(1)

Another mast  $Z$  is on a bearing of  $160^\circ$  from  $Y$ .

On the map,  $Z$  is  $4\text{ cm}$  from  $Y$ .

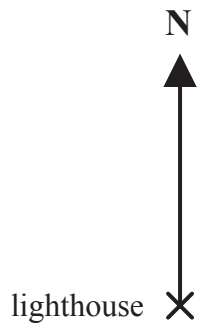
(b) Mark the position of  $Z$  with a cross (X) and label it  $Z$ .

(2)

(Total 3 marks)



6. The diagram shows part of a map.  
It shows the positions of a lighthouse and a boat.



The scale of the map is 1:10 000

- (a) Work out the real distance between the lighthouse and the boat.  
Give your answer in metres.

..... m  
(2)

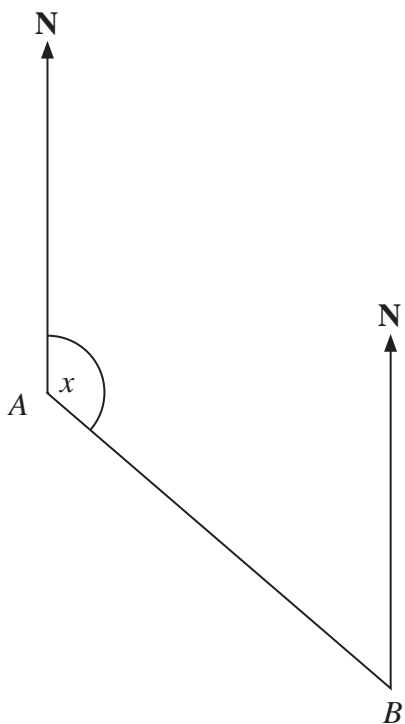
- (b) Find the bearing of the lighthouse from the boat.

.....  
(1)

**(Total 3 marks)**



7. The diagram shows the position of two ports, *A* and *B*. A ship sails from port *A* to port *B*.



Scale: 1 cm represents 50 km

- (a) Measure the size of the angle marked *x*.

.....<sup>o</sup>  
(1)

- (b) Work out the real distance between port *A* and port *B*.  
Use the scale 1 cm represents 50 km.

..... km  
(2)

Port *C* is 350 km on a bearing of  $060^\circ$  from port *B*.

- (c) On the diagram, mark airport *C* with a cross (×).  
Label it *C*.

(2)

**(Total 5 marks)**



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