Write your name here

Surname	Other names

In the style of:

Edexcel GCSE

Centre Number	Candidate Number

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

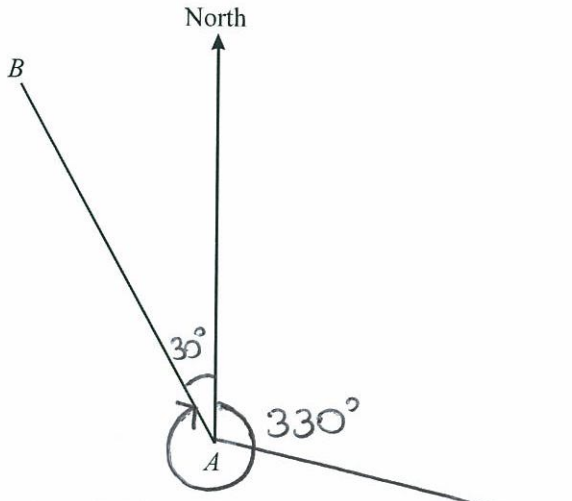
- The total mark for this paper is 100
- The marks for **each** question are shown in brackets
  – *use this as a guide as to how much time to spend on each question.*
- Questions labelled with an **asterisk** (*) are ones where the quality of your written communication will be assessed.

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.

330 .....°

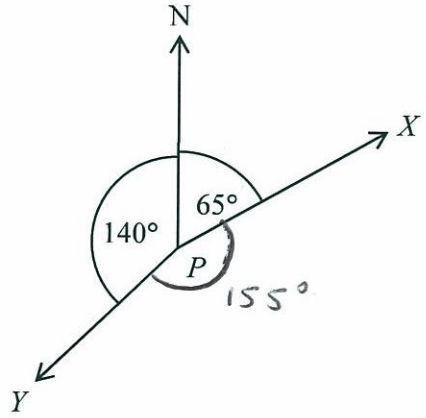
(1)

(b) On the diagram, draw a line on a bearing of 103° from A.

(1)

(Total 2 marks)

2.



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

065 .....°

(1)

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

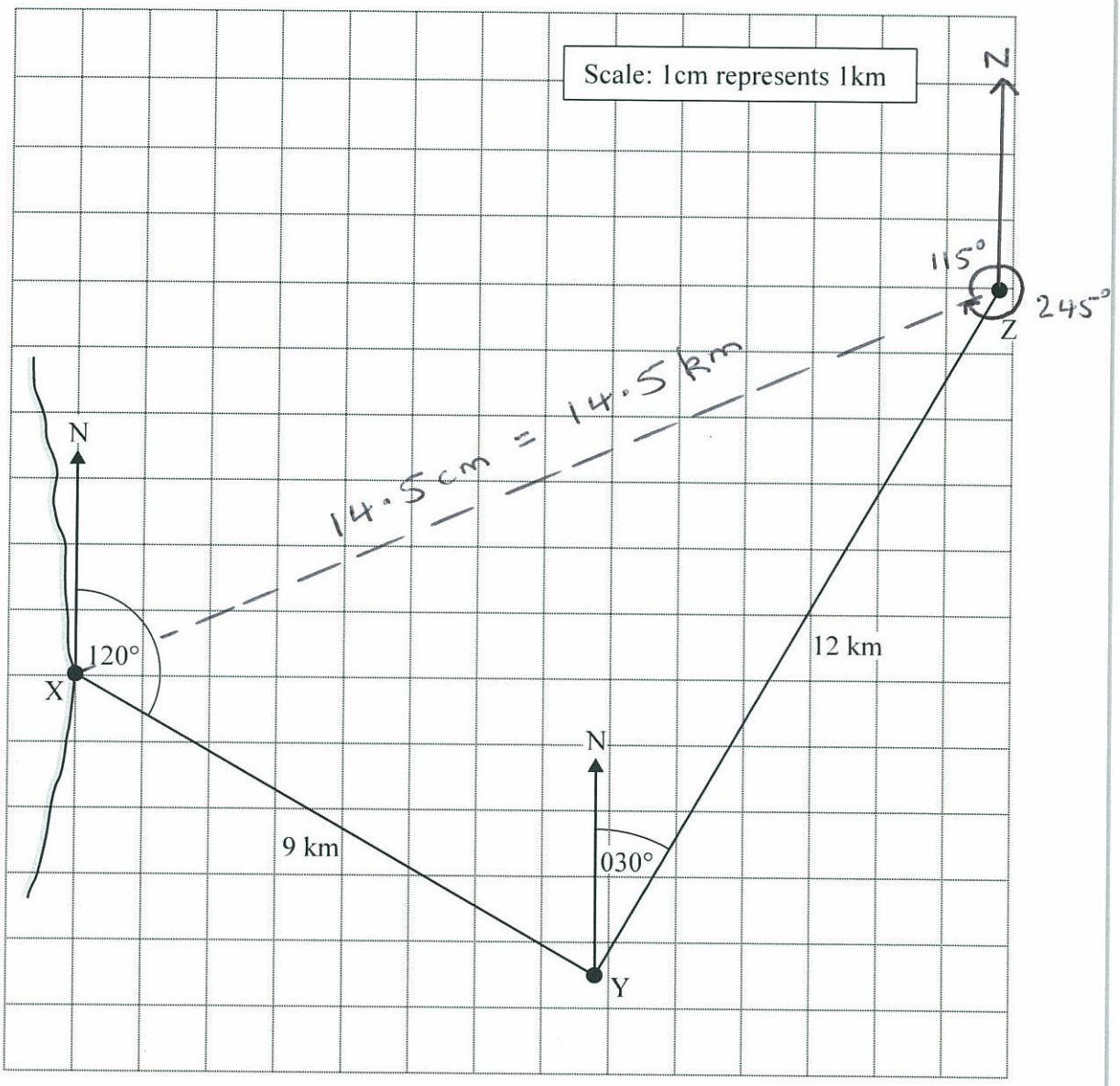
$65° + 155° = 220°$

220 .....°

(2)

(Total 3 marks)

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



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

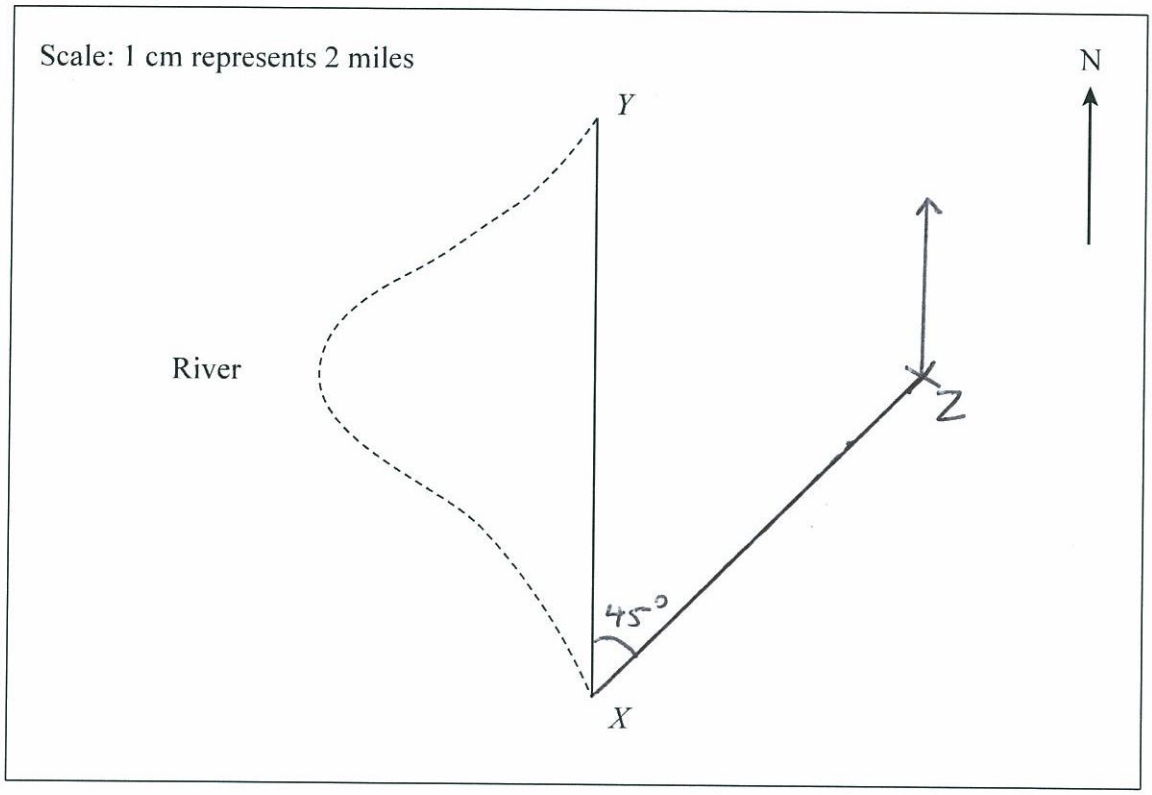
Use a ruler and protractor to work out the distance and bearing of the journey from Z to X

Distance 14.5 km

Bearing 245 °

(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?

$24 - (7.5 \times 2)$

$= 24 - 15$

$= 9$ miles.

9 ..... miles

(3)

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

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

045 ..... °

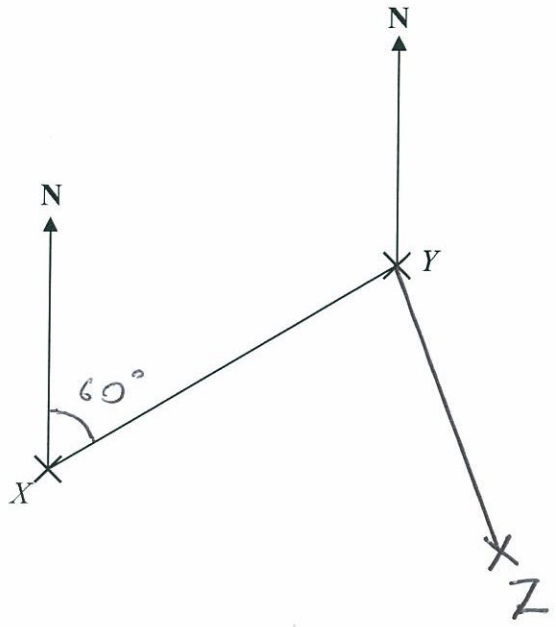
(1)

(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.

060 .....°

(1)

Another mast Z is on a bearing of 160 from Y.

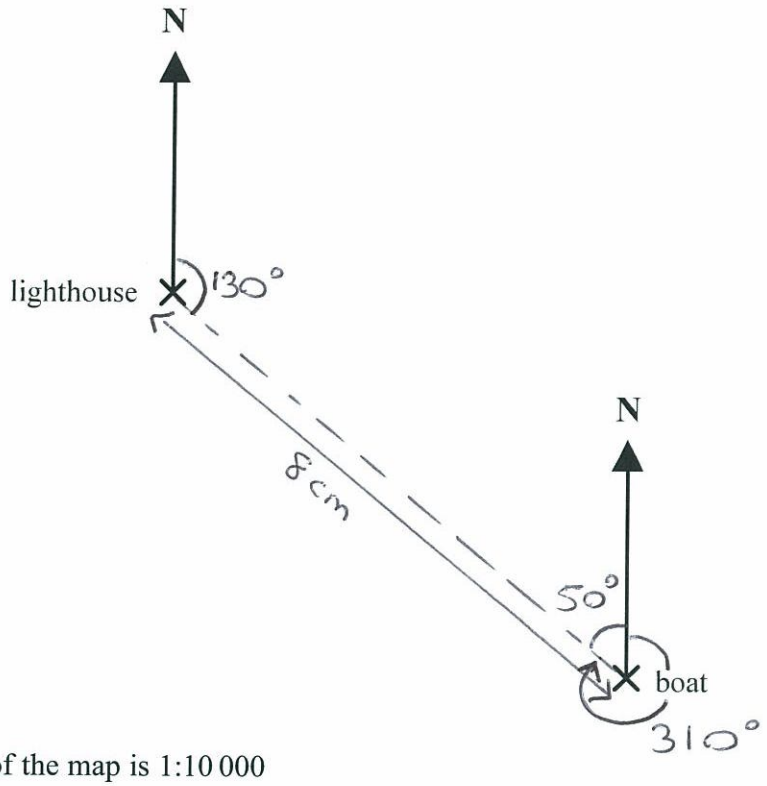
On the map, Z is 4 cm from Y.

(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.

$8 \times 10,000 = 80,000$ cm

Real distance in metres is given by

$\frac{80,000}{100} = 800$ metres.

800 ..... m

(2)

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

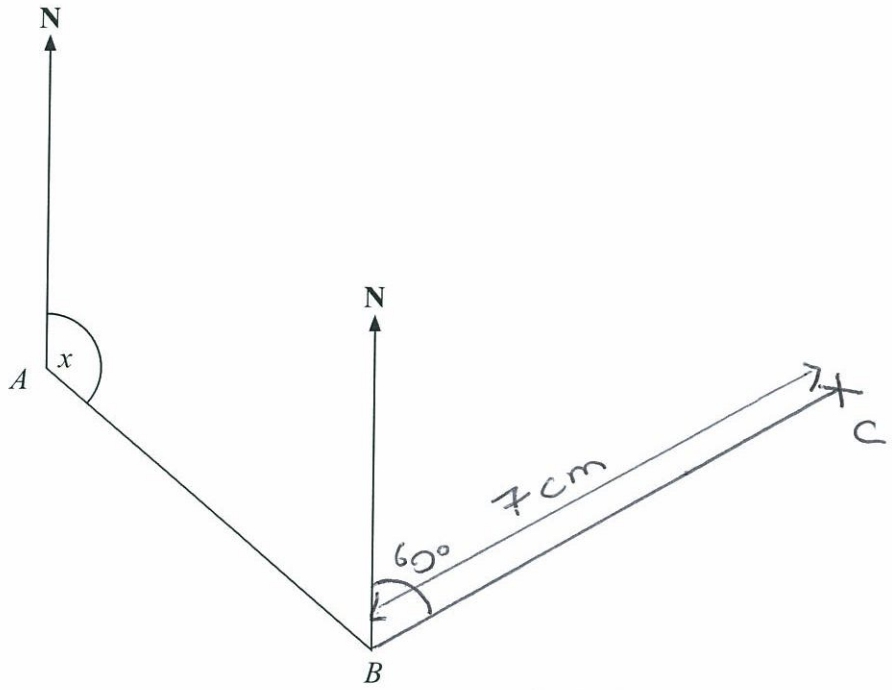
$360 - 50^\circ = 310^\circ$

310° .....

(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.

130 °

(1)

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

5.7 × 50 = 285 km

285 km

(2)

Port C is 350 km on a bearing of 060° from port B.

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

(2)

(Total 5 marks)

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