

Name

Class



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Bearings

(9 – 1) Topic booklet

Foundation

These questions have been collated from previous years GCSE Mathematics papers.

You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser.

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.*
- Diagrams are NOT accurately drawn, unless otherwise indicated.
- You must **show all your working out.**
- If the question is a **1F** question you are not allowed to use a calculator.
- If the question is a **2F** or a **3F** question, you may use a calculator to help you answer.

Information

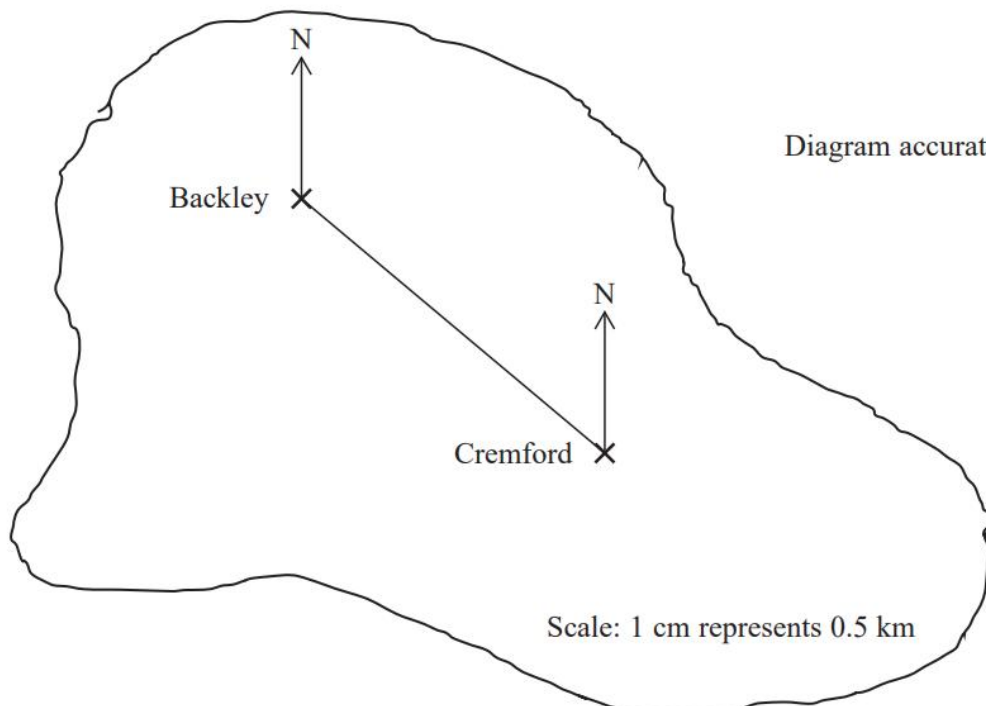
- The marks for **each** question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*

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.

Answer ALL questions
Write your answers in the space provided.
You must write down all the stages in your working.

9 Here is a map of an island.



A straight road joins the two villages, Backley and Cremford.

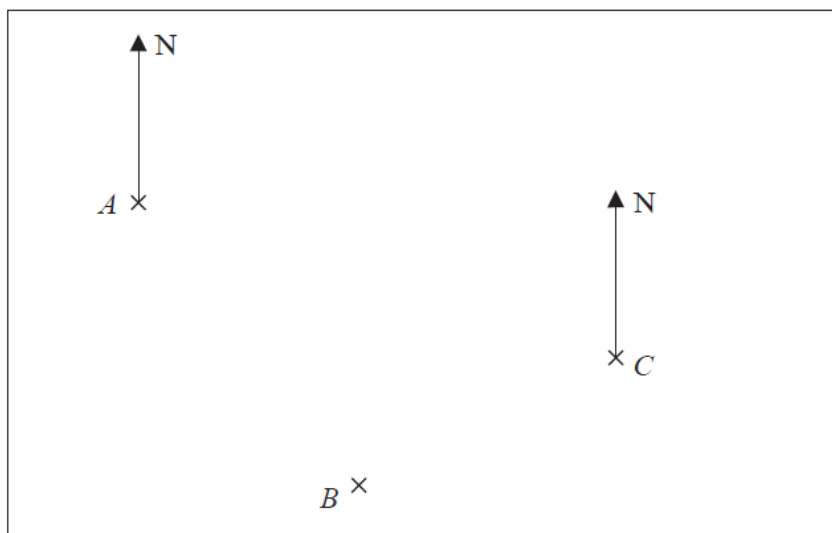
(a) Work out the real distance between the two villages.

.....km
 (2)

(b) Find the bearing of Cremford from Backley.

.....°
 (1)

13 The accurately drawn map shows the positions of three points, A , B and C , in a field.



Scale: 1 cm represents 150 metres

Parveen walks in a straight line from A to B .
She then walks in a straight line from B to C .

Susan walks in a straight line from A to C .

Parveen walks more metres than Susan.

(a) How many more?

..... metres
(3)

(b) Find by measurement the bearing of A from C .

.....
(1)

13 The diagram shows two points, A and B , on a map.

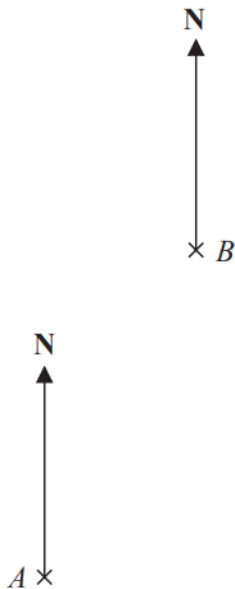


Diagram accurately drawn

Scale: 1 to 25 000

(a) Find the bearing of B from A .

.....
(1)

(b) Work out the real distance between A and B .
Give your answer in kilometres.

..... kilometres
(3)

17 The diagram shows the position of town T .

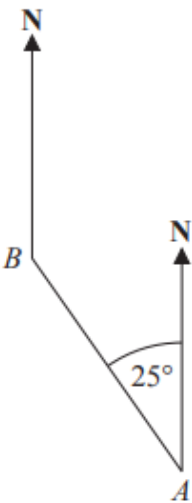


Town R is 55 km from town T on a bearing of 065°

Mark the position of town R with a cross (\times).

Use a scale of 1 cm to 10 km.

18 The diagram shows the positions of two churches, A and B .



Amber says,

“The bearing of church B from church A is 025° ”

Amber is wrong.
Explain why.

Specimen 2 – Paper 3F

(Total for Question 18 is 1 mark)

27 The bearing of port B from port A is 147°

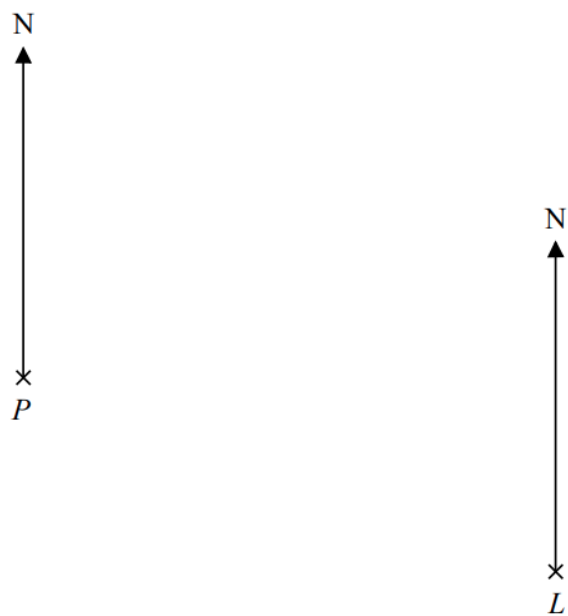


Work out the bearing of port A from port B .

November 2023 – Paper 2F

(Total for Question 27 is 2 marks)

27 The accurate scale drawing shows the positions of port P and a lighthouse L .



Scale: 1 cm represents 4 km.

Aleena sails her boat from port P on a bearing of 070°
She sails for $1\frac{1}{2}$ hours at an average speed of 12 km/h to a port Q .

Find

- (i) the distance, in km, of port Q from lighthouse L ,
- (ii) the bearing of port Q from lighthouse L .

distance $QL = \dots\dots\dots$ km

bearing of Q from $L = \dots\dots\dots^\circ$