Name	Class

MATHS TEACHER HUB

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Bearings
(9 – 1) Topic booklet
Higher

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 **1H** question you are not allowed to use a calculator.
•If the question is a **2H** or a **3H** 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.

6 The bearing of port B from port A is $147°$

Work out the bearing of port A from port B.

.... °

(Total for Question 6 is 2 marks)

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

N

N

$\times$
P

$\times$
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 = ... km

bearing of Q from L = ... °

(Total for Question 8 is 5 marks)

9 The diagram shows the positions of three points, *A*, *B* and *C*, on a map.
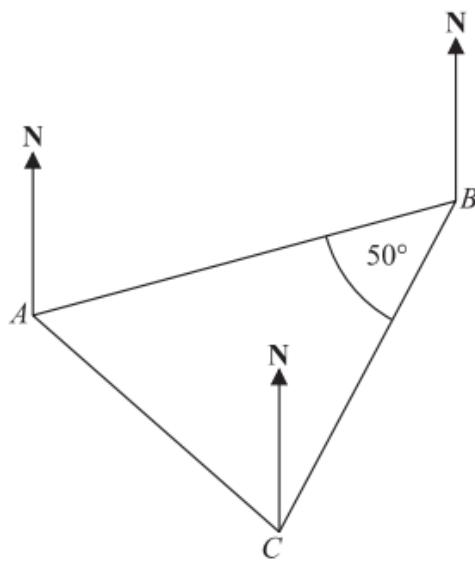
The bearing of *B* from *A* is 070°

Angle *ABC* is 50°
AB = *CB*

Work out the bearing of *C* from *A*.

.... °

(Total for Question 9 is 3 marks)

23 The diagram shows the positions of three towns, Acton (*A*), Barston (*B*) and Chorlton (*C*).
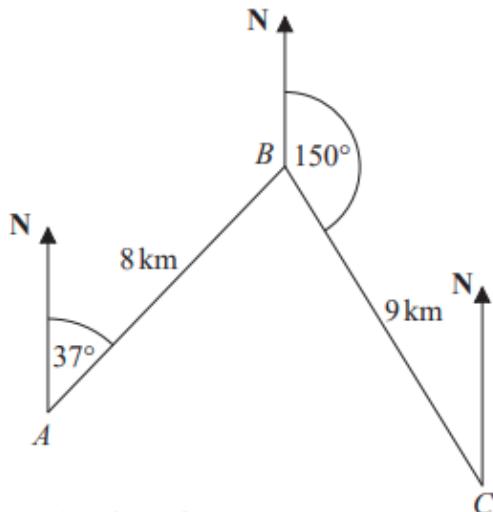
Barston is 8 km from Acton on a bearing of 037°
Chorlton is 9 km from Barston on a bearing of 150°

Find the bearing of Chorlton from Acton.
Give your answer correct to 1 decimal place.
You must show all your working.

(Total for Question 23 is 5 marks)