Write your name, centre number and candidate number in the boxes below.

Surname	Other names

Centre number | | | | | |

Candidate number | | | | |

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Bearings

Time allowed: 30 minutes

Subject code **0580**

Mathematics

Questions from Paper 1, Paper 2, Paper 3 and Paper 4

You must have: a ruler marked in centimetres and millimetres, a protractor, compasses, a pen, an HB pencil and an eraser.
You may use a calculator.

Total marks

/ 25

Instructions

- Answer every question in the space provided on this paper.
- Write in black or dark blue ink. Pencil may be used for diagrams and graphs.
- Fill in your name, centre number and candidate number above.
- Show your working: a correct method can earn marks even if the answer is wrong.
- Unless a question says otherwise, give answers that are not exact to 3 significant figures, and angles in degrees to 1 decimal place.

Information

- This paper has 10 questions worth 25 marks in total.
- The marks for each question or part are shown in brackets, for example [3].

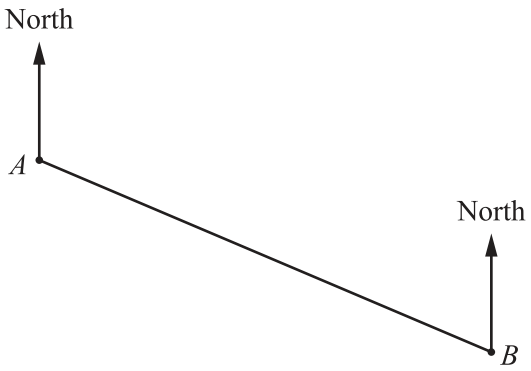
Advice

- Read every question through once before you write anything.
- Use the marks in brackets to judge how long to spend on each part.
- If you finish early, go back and check your working.

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Print at 100% (Actual size) so diagrams keep their real measurements.

1



Measure the bearing of B from A.

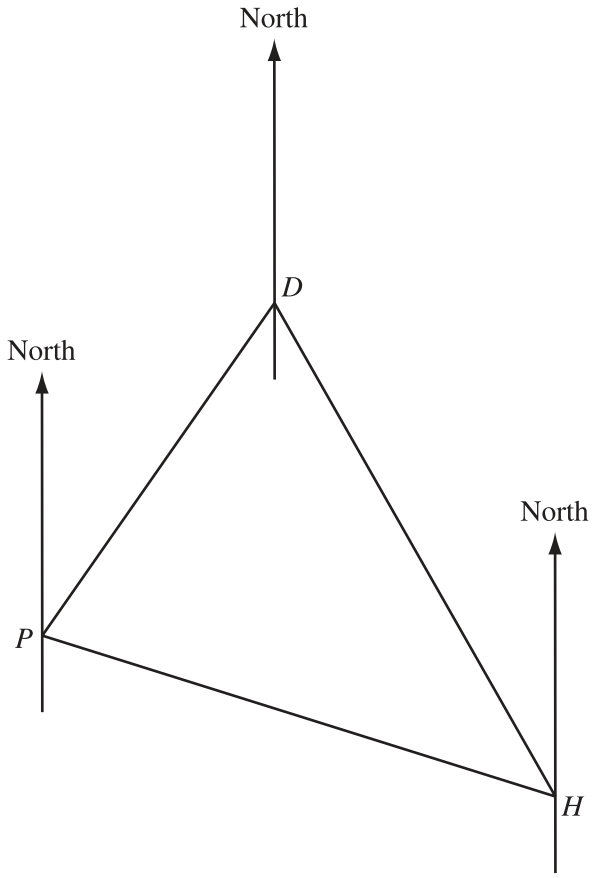
..... [1]

Bearings Click for more variations

1	113°	**1**	

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2



The positions of Perth (P), Darwin (D) and Hobart (H) are shown on the diagram.

Measure accurately any angles you need and write down the bearing of

(a) D from P,

Answer(a) ..... [1]

(b) P from H.

Answer(b) ..... [1]

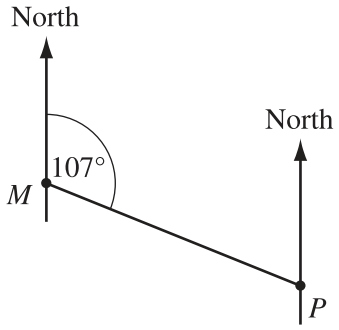
(a) Bearings (b) Bearings Click for more variations

2	**(a)** (0)34 to (0)36 **(b)** 286 to 289	1 1	

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3

NOT TO SCALE



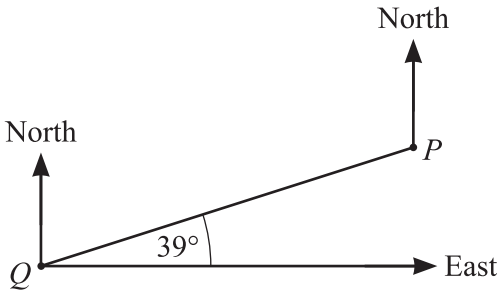
The bearing of P from M is 107°.
Work out the bearing of M from P.

Answer ..... [2]

Bearings Click for more variations

3	287°	2	**W1** for 73 or 107 marked in correct position **at *P*** or **M1** 107 + 180

4



NOT TO SCALE

Find the bearing of Q from P.

..... [2]

Bearings Click for more variations

4	231	**2**	**B1** for any of these angles in correct place on the diagram 51 or 129 or 141 between east line drawn from P to PQ or 39 between west line dawn from P to PQ or indicating the correct bearing of Q from P on the diagram. or **M1** for 180 + (90 – 39) oe or 360 – (90 + 39)

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5 The scale drawing shows the position of a hospital, H.
The scale is 1 centimetre represents 6 kilometres.



Scale: 1 cm to 6 km

A school, S, is 33 km from H on a bearing of 155°.

Mark the position of S on the scale drawing. [2]

Bearings Click for more variations

5	S marked correctly	**2**	**B1** for HS drawn length 5.5cm **B1** for bearing of S from H 155°

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6 The scale drawing shows the position of ship A.
The scale is 1 centimetre represents 50 kilometres.



Scale: 1 cm to 50 km

Ship B is 300 km from ship A on a bearing of 105°.

On the scale drawing mark the position of ship B.

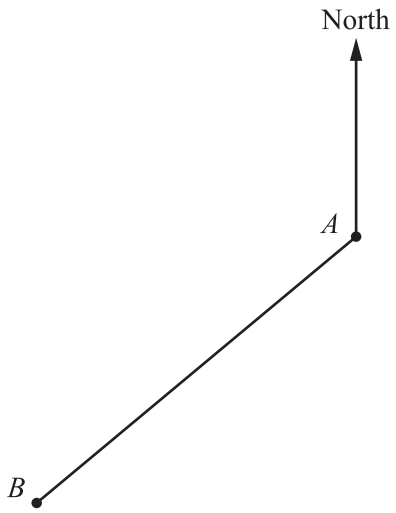
[2]

Bearings Click for more variations

6	Correct point marked	**2**	**B1** for bearing of B from A 105° **B1** for AB drawn length 6 cm

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7 This scale drawing shows the positions of two towns, A and B, on a map.



(a) Measure the bearing of town B from town A.

Answer(a) ..... [1]

(b) On the map, town C is 8 cm from town A on a bearing of 155°.

Mark the position of town C on the scale drawing. [2]

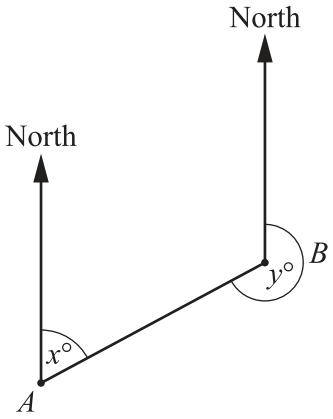
(a) Bearings (b) Bearings Click for more variations

7	**(a)**	230	**1**	
	(b)	C marked in correct position	**2**	**B1** for correct distance 8 cm or correct bearing 155°

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8 The bearing of B from A is $x°$.
The bearing of A from B is $y°$.
$x : y = 2 : 7$

Calculate the value of y.



NOT TO SCALE

$y =$ ..... [3]

Bearings Click for more variations

8	252	**3**	**M2** for $180 \div (7 - 2)$ oe OR **M1** for $180 - x + y = 360$ oe **M1** for correct use of ratio

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9 **(a)** The scale diagram shows the position of town A on a map.
Town B is 12 km from town A on a bearing of 080°.

Using a scale of 1 cm represents 2 km, mark the position of town B on the diagram.



Scale: 1 cm to 2 km

[2]

(b) The bearing of C from D is 130°.

Work out the bearing of D from C.

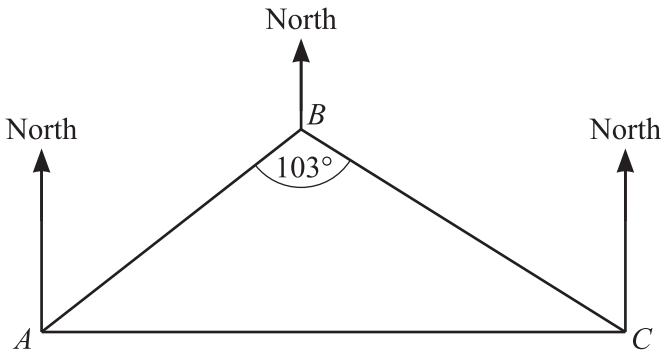
..... [2]

(a) Bearings (b) Bearings Click for more variations

9(a)	B marked 6 cm from A on a bearing of 080°.	**2**	**M1** for a correct bearing of 080° but incorrect length or for a 6 cm line from A
9(b)	310	**2**	**M1** for 180 + 130 oe or indicates required bearing on a sketch

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10 The diagram shows the positions of three towns A, B and C.



NOT TO SCALE

Angle $ABC = 103°$.
The bearing of town B from town A is 048°.
Town C is due east of town A.

Find the bearing of town C from town B.

..... [4]

Bearings Click for more variations

10	125	**4**	**B1** for 48 between the North line and AB at A. **M1** for 180 — *their* 48 **M1** dep for 360 — (103 + *their* 132) OR **M1** for [angle ACB =] 180 — 103 — (90 — their 48) **M1** dep for 90 + *their ACB* or for 180 — (90 — *their ACB*)

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