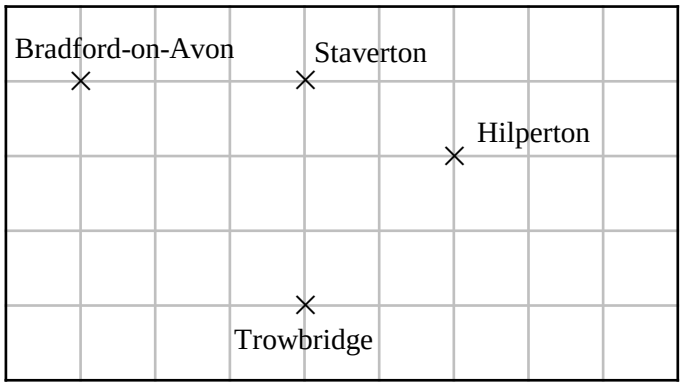
Bearings

SCAN ME

REVISE THIS TOPIC

1 Here is a map of some towns and villages on a square centimetre grid.



(a) Write down the bearing of Trowbridge from Staverton.

180 °

(1)

(b) Write down the bearing of Bradford-on-Avon from Staverton.

270 °

(1)

(c) Write down the bearing of Hilperton from Trowbridge.

045 °

(1)

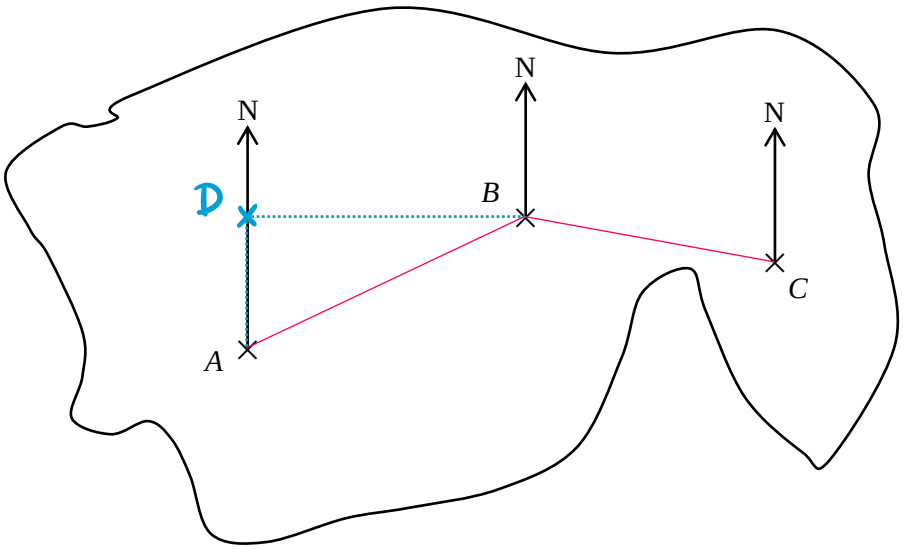
(d) Write down the bearing of Trowbridge from Bradford-on-Avon

135 °

(1)

(Total for Question 1 is 4 marks)

2 Here is a map of an island with towns *A*, *B* and *C*.



(a) Find the bearing of town *B* from town *A*.

065 °

(1)

(b) Find the bearing of town *C* from town *B*.

100 °

(1)

(c) Town *D* is

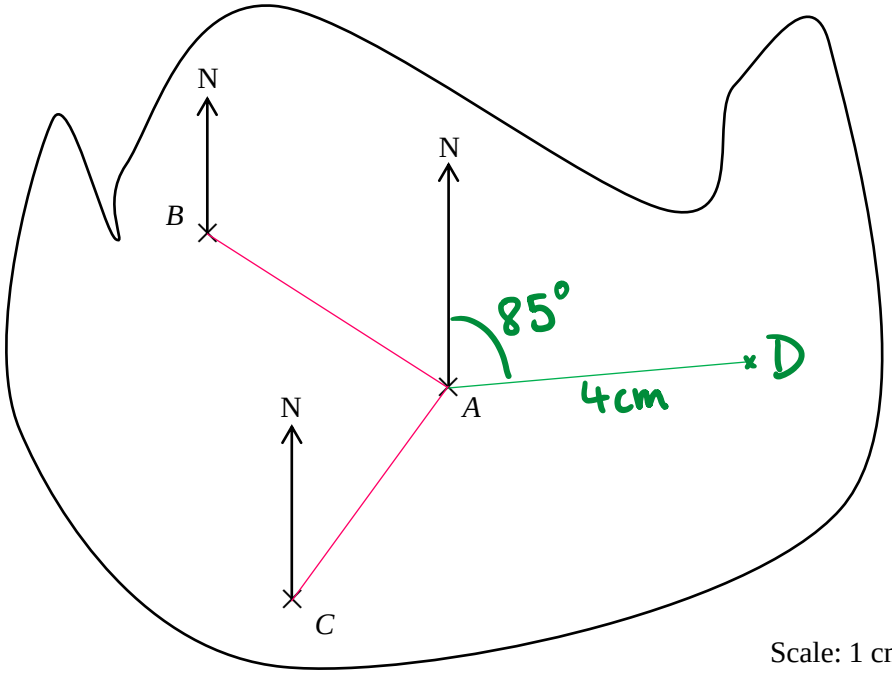
due North of town *A*
due West of town *B*

Mark town *D* onto the map.

(1)

(Total for Question 2 is 3 marks)

3 Here is a map of an island with towns *A*, *B* and *C*.



Scale: 1 cm represents 5 km

(a) Find the bearing of town *B* from town *A*.

303 °

(1)

(b) Find the bearing of town *C* from town *B*.

215 °

(1)

(c) Town *D* is 20 km from town *A*.
The bearing of town *D* from town *A* is 085°

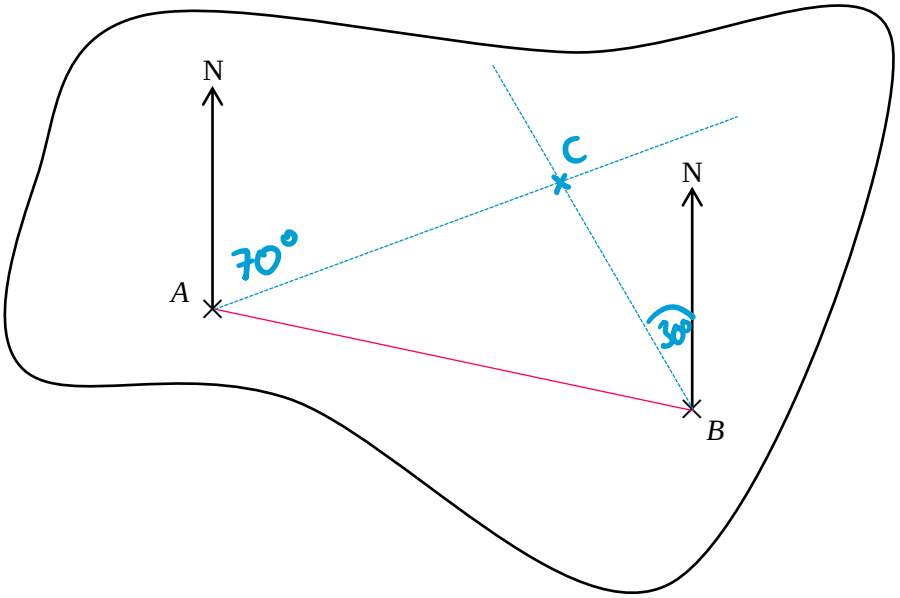
Mark town *D* onto the map.

1cm : 5km
4cm : 20km

(2)

(Total for Question 3 is 4 marks)

4 Here is a map of an island with towns *A* and *B*.



(a) Find the bearing of town *B* from town *A*.

102 °

(1)

(b) Find the bearing of town *A* from town *B*.

282 °

(1)

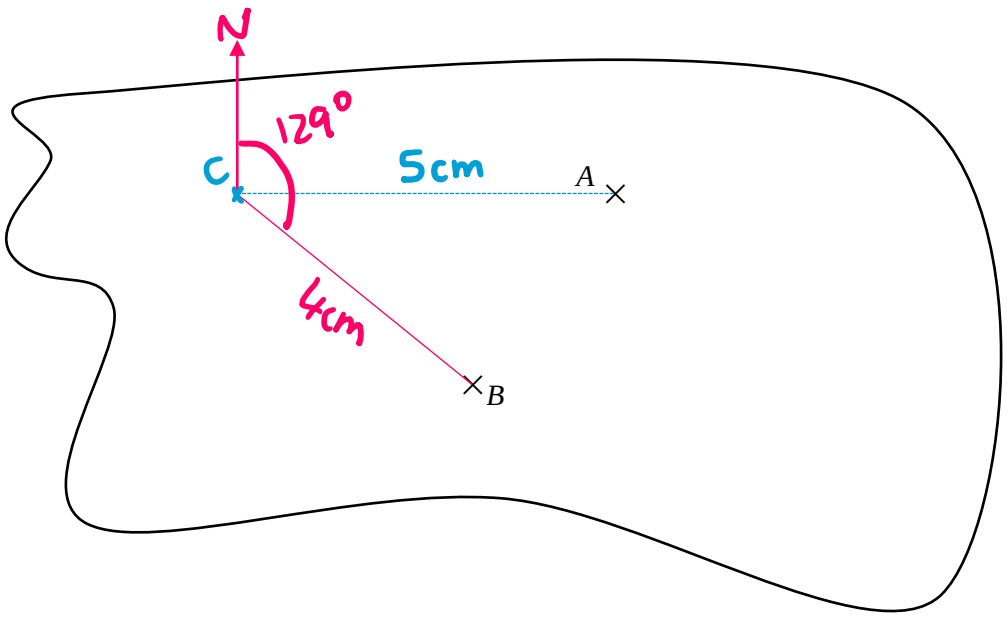
(c) The bearing of town *C* from town *A* is 070°
The bearing of town *C* from town *B* is 330°

Mark town *C* onto the map.

(2)

(Total for Question 4 is 4 marks)

5 Here is a map of an island with towns *A* and *B*.



Scale: 1 cm represents 3 km

(a) Town *C* is 15 km due West of town *A*.

Mark town *C* onto the map.

1cm : 3 KM) x5
5cm : 15 KM

(2)

(b) Find the bearing of town *B* from town *C*.

129 °

(1)

(c) Work out the actual distance between town *B* and town *C*.
Give your answer in kilometres.

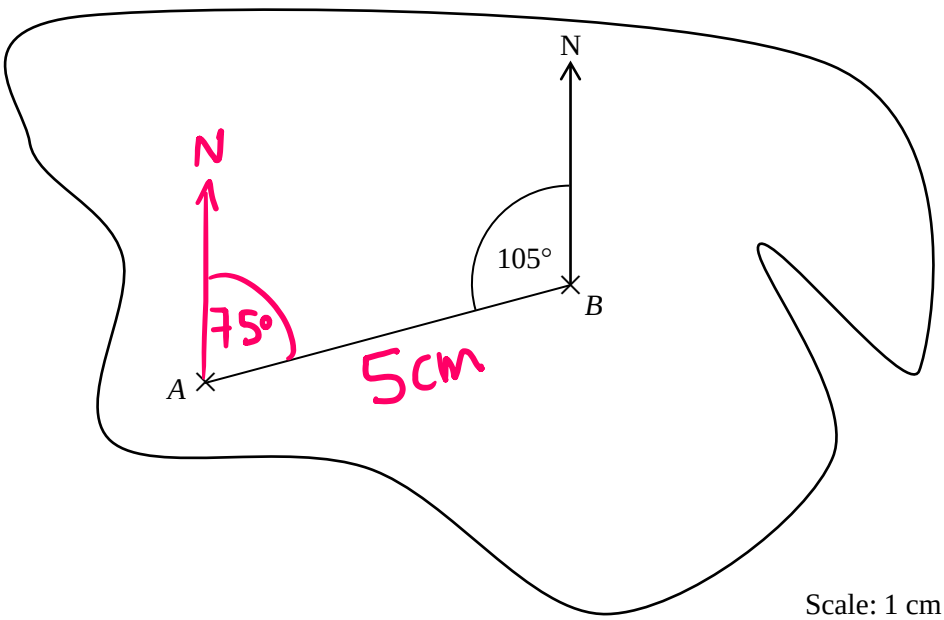
4 x 3 = 12

12 km

(2)

(Total for Question 5 is 5 marks)

6 Here is a map of an island with towns *A* and *B*.



Scale: 1 cm represents 2.5 km

(a) Elijah says that the bearing of town *A* from town *B* is 105°
Explain why Elijah is incorrect.

bearings are measured clockwise

(1)

(b) Find the bearing of town *B* from town *A*.

075 °

(1)

(c) Work out the actual distance between town *A* and town *B*.
Give your answer in kilometres.

$5 \times 2.5 = 12.5$

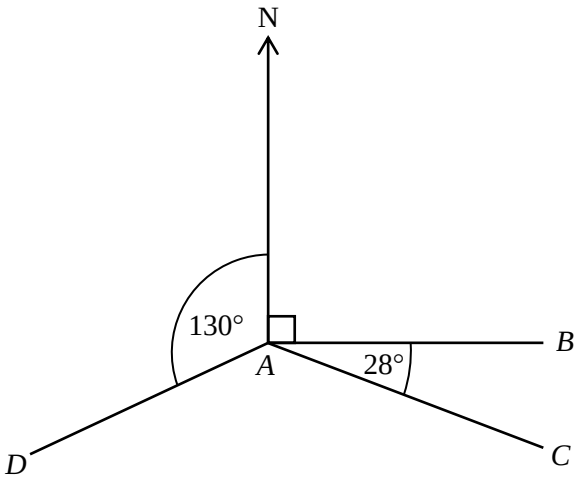
12.5 km

(2)

(Total for Question 6 is 4 marks)

If you do not print this on A4 full scale your answers to measurements questions will not match mine.

7 *A*, *B*, *C* and *D* are four points.



Not drawn accurately

(a) Find the bearing of *B* from *A*.

090 °

(1)

(b) Find the bearing of *C* from *A*.

90 + 28

118 °

(2)

(c) Find the bearing of *D* from *A*.

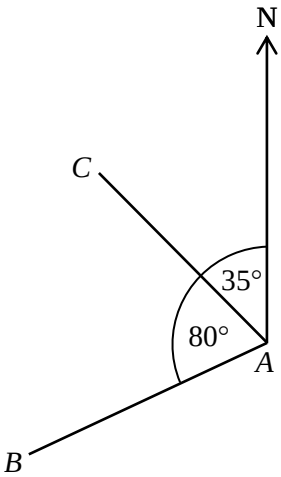
360 − 130

230 °

(2)

(Total for Question 7 is 5 marks)

8 *A*, *B*, and *C* are three points.



Not drawn accurately

(a) Find the bearing of *C* from *A*.

360 - 35

325 °

(1)

(b) Find the bearing of *B* from *A*.

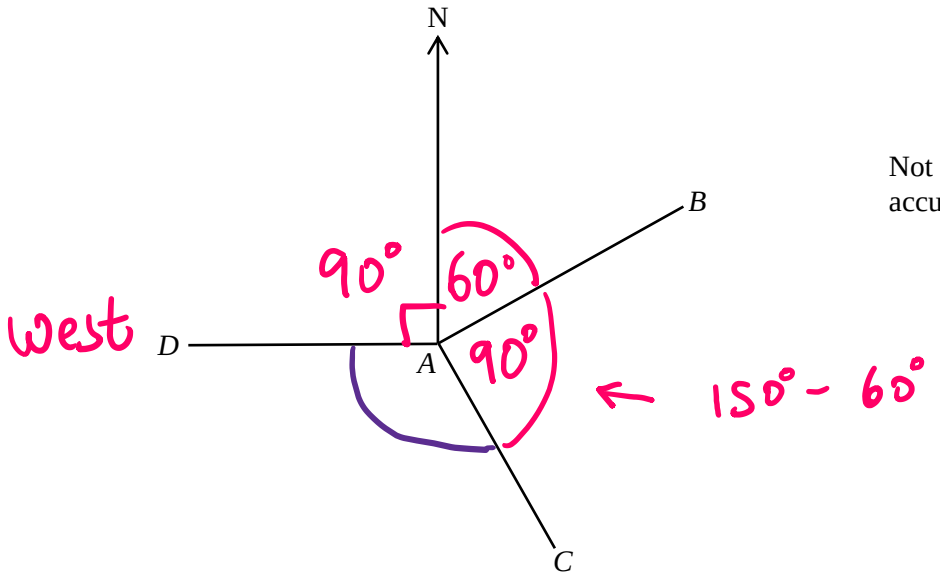
80 + 35 = 115
360 − 115 = 245

245 °

(2)

(Total for Question 8 is 3 marks)

9 *A*, *B*, *C* and *D* are four points.



Not drawn accurately

D is due West of *A*.
The bearing of *B* from *A* is 060°
The bearing of *C* from *A* is 150°

Work out Angle *DAC* : Angle *BAC*
Give your answer in its simplest form.

$90 + 60 + 90 = 240°$

$360 - 240 = 120°$

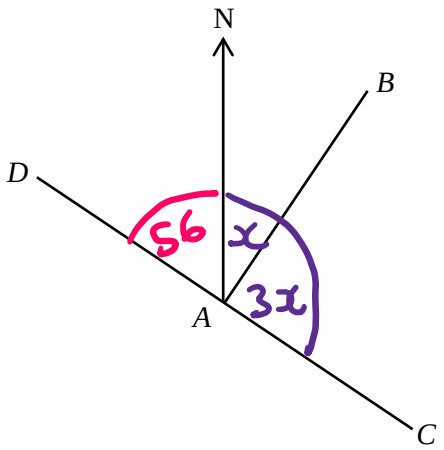
$120 : 90$ (÷ 30)

$4 : 3$

4 : 3

(Total for Question 9 is 4 marks)

10 *A*, *B*, *C* and *D* are four points.
DAC is a straight line.



Not drawn accurately

The bearing of *D* from *A* = 304°
The bearing of *C* from *A* = 4 × the bearing of *B* from *A*.

Work out the bearing of *B* from *A*

$360 - 304 = 56$

$180 - 56 = 124$

$4x = 124$ ÷4

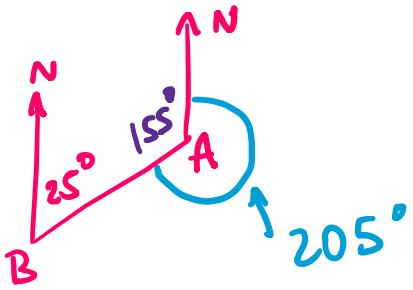
$x = 31$ ÷4

031 °

(Total for Question 10 is 4 marks)

11 The bearing of A from B is 025°

Work out the bearing of B from A.



$180 - 25 = 155$

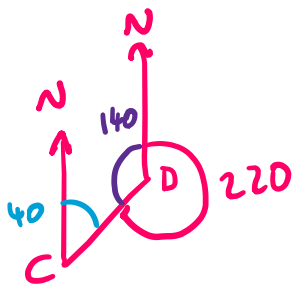
$360 - 155 = 205$

205 °

(Total for Question 11 is 2 marks)

12 The bearing of C from D is 220°

Work out the bearing of D from C.



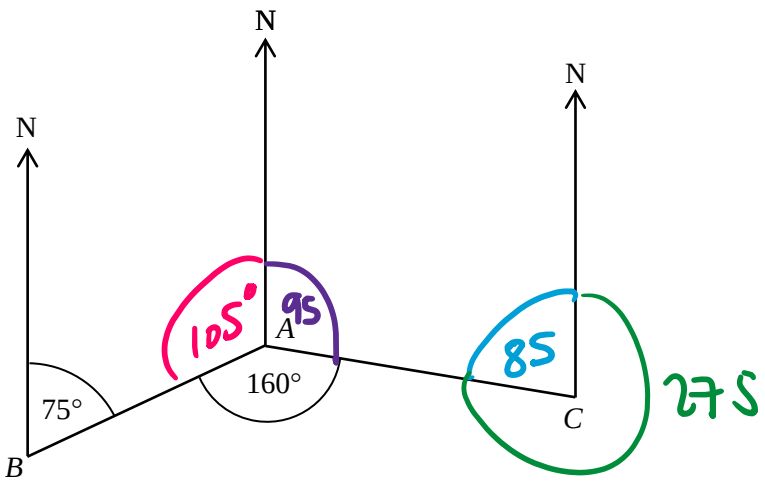
$360 - 220 = 140$

$180 - 140 = 40$

040 °

(Total for Question 12 is 2 marks)

13 *A*, *B*, and *C* are three points.



Not drawn accurately

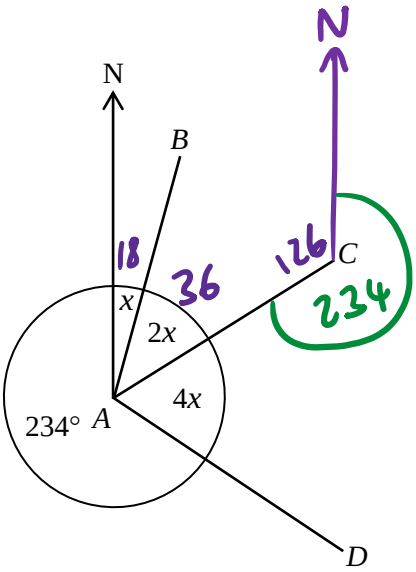
Work out the bearing of *A* from *C*.

180 - 75 = 105
360 - 105 - 160 = 95
180 - 95 = 85
360 - 85 = 275

275 °

(Total for Question 13 is 4 marks)

14 *A*, *B*, *C* and *D* are four points.



Not drawn accurately

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

$x + 2x + 4x + 234 = 360$

$7x + 234 = 360$

$7x = 126$

$x = 18$

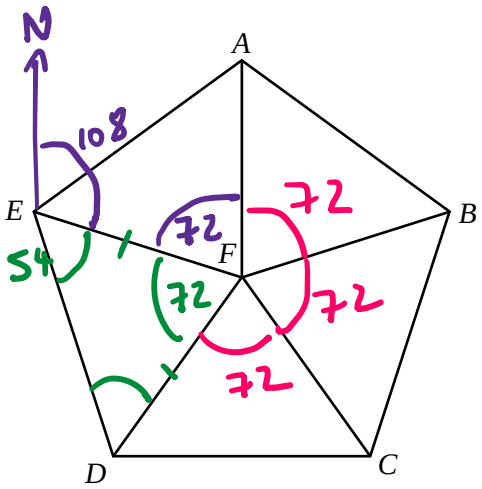
$180 - 18 - 36 = 126$

$360 - 126 = 234$

234 °

(Total for Question 14 is 5 marks)

15 5 congruent triangles are used to form regular pentagon *ABCDE*.



(a) Find the bearing of *D* from *F*.

360 ÷ 5 = 72
72 × 3 = 216

216 °

(2)

(b) Find the bearing of *F* from *E*.

180 - 72

108 °

(2)

(c) Find the bearing of *D* from *F*.

180 - 72 = 108
108 ÷ 2 = 54

108 + 54 = 162

162 °

(2)

(Total for Question 15 is 6 marks)