

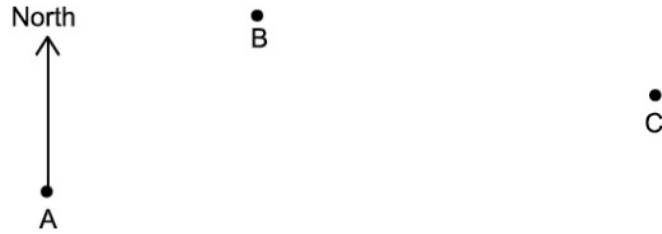
G11...Angles - Regular Bearings

OCR

4 Here is a scale drawing showing three towns A, B and C.

Created by W Neill

Scale: 1 cm represents 6 km



(a) Work out the actual distance AC.

(a) km [2]

(b) Measure the bearing of B from A.

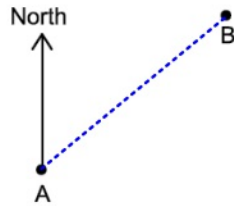
(c) The scale can be written in the form 1 : n .

Find the value of n .

4 Here is a scale drawing showing three towns A, B and C.

Created by W Neill

Scale: 1 cm represents 6 km



$$1000\text{m} = 1\text{km}$$

$$100\text{cm} = 1\text{m}$$

C

$$1 : N$$

$$1\text{cm} : 6\text{km}$$

(a) Work out the actual distance AC.

$$\begin{array}{l} \times 9 \left(\begin{array}{l} 1\text{cm} = 6\text{km} \\ \downarrow \\ 9\text{cm} \end{array} \right) \times 9 \\ \text{(a) } \dots\dots\dots 54 \dots\dots\dots \text{km [2]} \end{array}$$

$$1\text{cm} : 6000\text{m}$$

$$1\text{cm} : 600000\text{cm}$$

(b) Measure the bearing of B from A.

$$050^\circ$$

$$1 : 600000$$

(c) The scale can be written in the form $1 : n$.

Find the value of n .

Video created by W Neill

22 A, B, C and D are four towns.

B is 25 kilometres due East of A.
C is 25 kilometres due North of A.
D is 45 kilometres due South of A.



C x

A x

x
B

D x

Not to scale

(a) Work out the bearing of B from C.

(a) ° [2]

22 A, B, C and D are four towns.

B is 25 kilometres due East of A.

C is 25 kilometres due North of A.

D is 45 kilometres due South of A.



C ×

A ×

×
B

D ×

Video created by W Neill

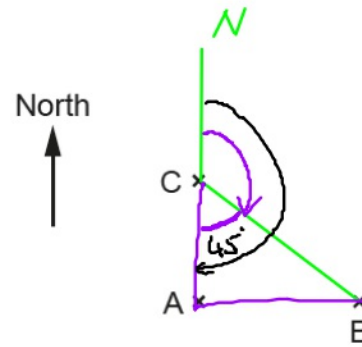
Not to scale

(b) Calculate the bearing of D from B.

..... ° [4]

22 A, B, C and D are four towns.

- B is 25 kilometres due East of A.
- C is 25 kilometres due North of A.
- D is 45 kilometres due South of A.



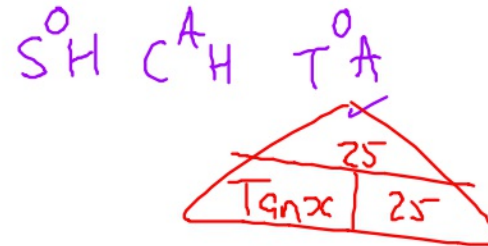
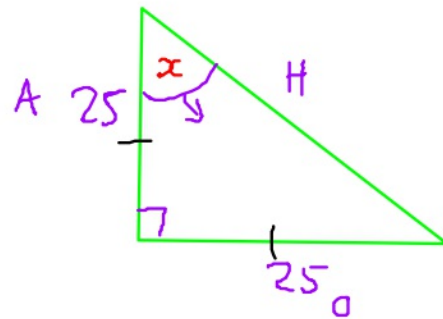
Video created by W Neill

Not to scale

D ×

ans
135°

(a) Work out the bearing of B from C.



$$\tan x = 1$$

$$x = \tan^{-1} \text{ of } 1$$

(a) 45° [2]

22 A, B, C and D are four towns.

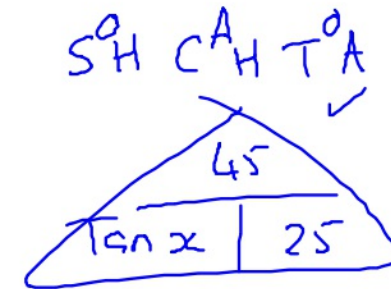
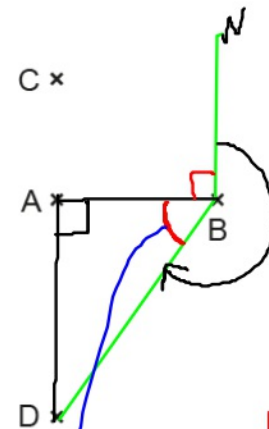
B is 25 kilometres due East of A.

C is 25 kilometres due North of A.

D is 45 kilometres due South of A.

Video created by W Neill

Not to scale



$$\tan x = \frac{45}{25}$$

$$\tan x = 1.8$$

$$x = \tan^{-1} 1.8$$

$$\rightarrow x = 60.945^\circ$$

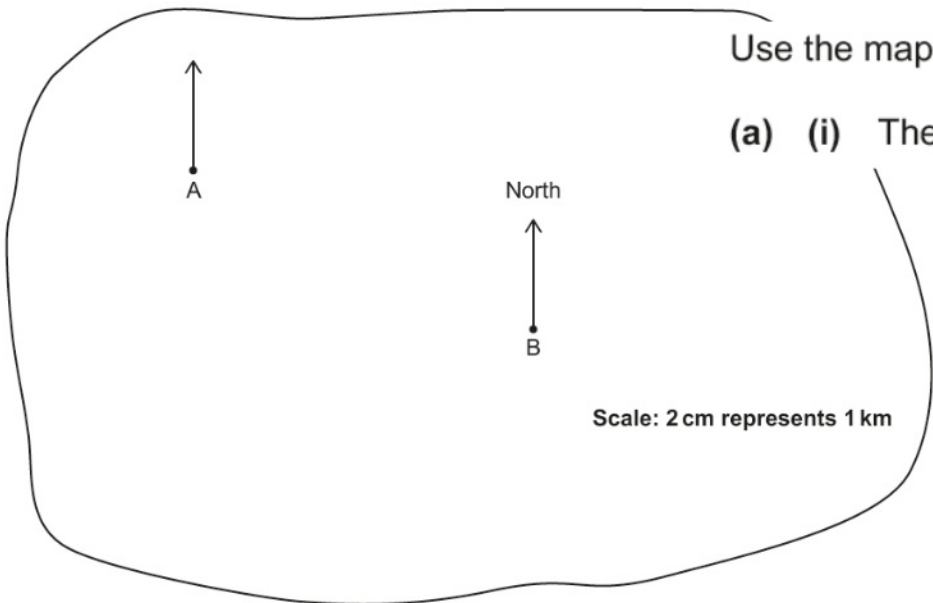
(b) Calculate the bearing of D from B.

$$209.05^\circ \checkmark$$

.....° [4]

4 A and B are two farms on this map.

Video created by W Neill



Use the map to complete these sentences.

(a) (i) The distance from A to B is km.

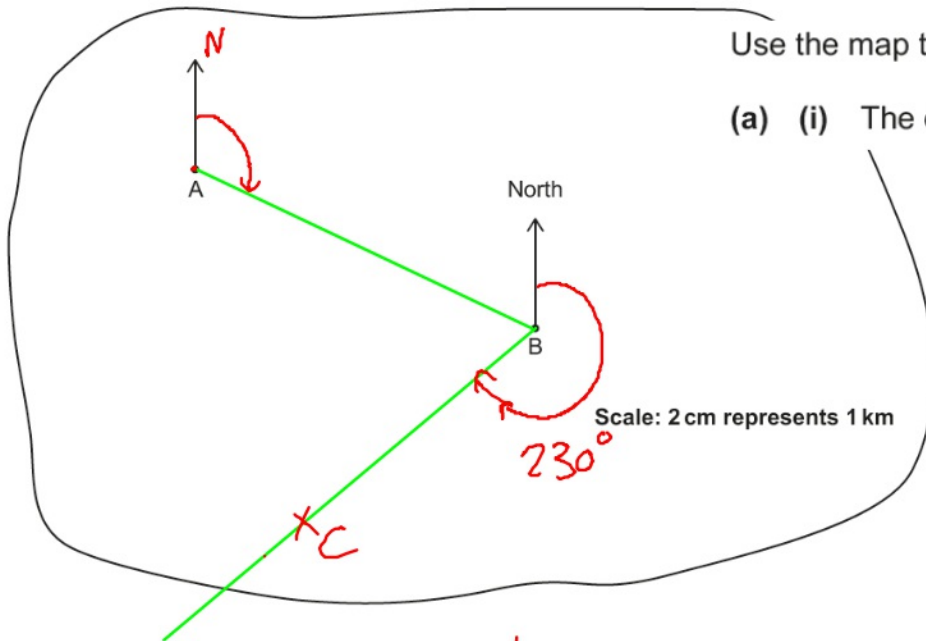
(ii) The bearing of B from A is °.

(b) C is another farm.
C is 2.5 km from B on a bearing of 230°.

Mark and label the position of C on the map with a cross.

4 A and B are two farms on this map.

Video created by W Neill



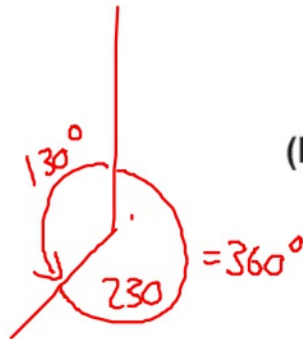
Use the map to complete these sentences.

(a) (i) The distance from A to B is 3.2 km.

$$6.4 \text{ cm} \stackrel{\div 2}{=} 3.2 \text{ km}$$

$$2 \text{ cm} \stackrel{\div 2}{=} 1 \text{ km}$$

$$\begin{aligned} 1 \text{ km} &= 2 \text{ cm} \\ 2 \text{ km} &= 4 \text{ cm} \\ 3 \text{ km} &= 6 \text{ cm} \\ 2.5 \text{ km} &= 5 \text{ cm} \end{aligned}$$



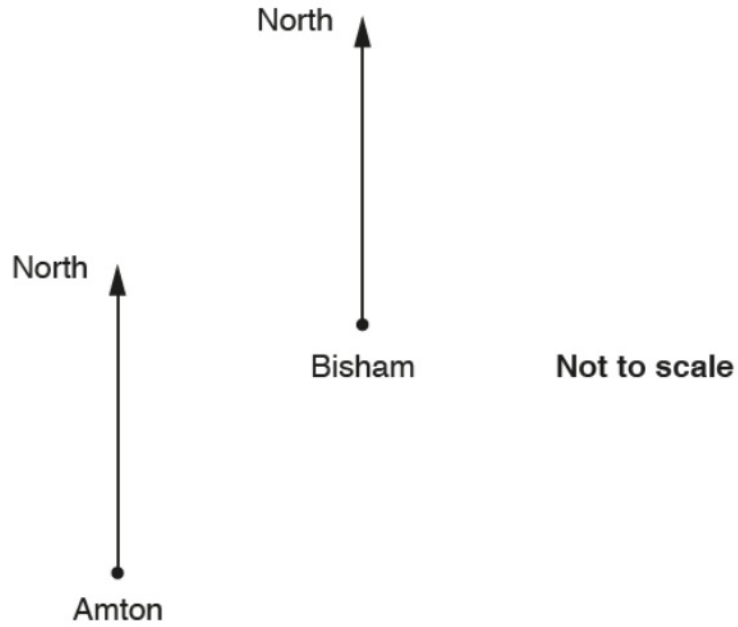
(ii) The bearing of B from A is 115 °.

(b) C is another farm.
C is 2.5 km from B on a bearing of 230°.

Mark and label the position of C on the map with a cross.

9 The diagram shows the positions of two towns, Amton and Bisham.

G11



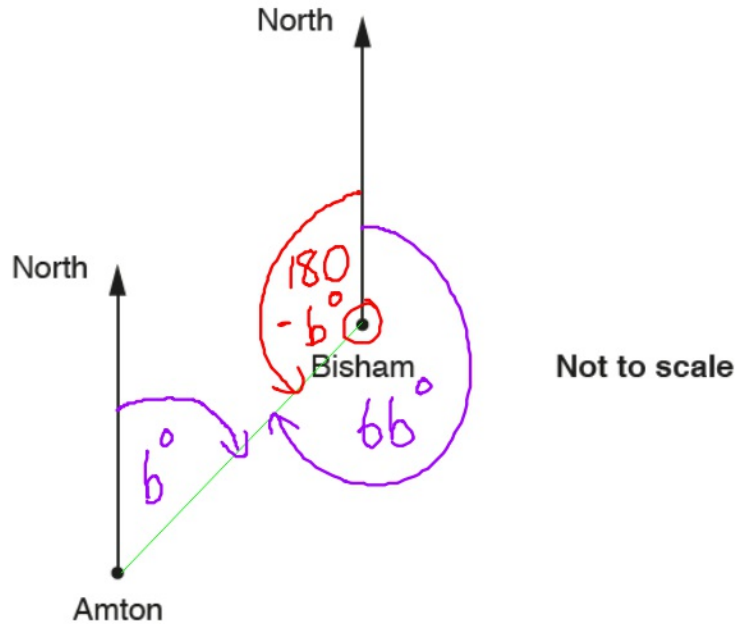
The bearing of Bisham from Amton is b° .
The bearing of Amton from Bisham is $6b^\circ$.

Calculate the 3-figure bearing of Amton from Bisham.

..... $^\circ$ [4]

9 The diagram shows the positions of two towns, Amton and Bisham.

G11



The bearing of Bisham from Amton is b° .
The bearing of Amton from Bisham is $6b^\circ$.

Calculate the 3-figure bearing of Amton from Bisham.

$$180^\circ - b^\circ + 6b^\circ = 360^\circ$$

$$180^\circ + 5b^\circ = 360$$

$$5b^\circ = 360 - 180$$

$$5b^\circ = 180^\circ$$

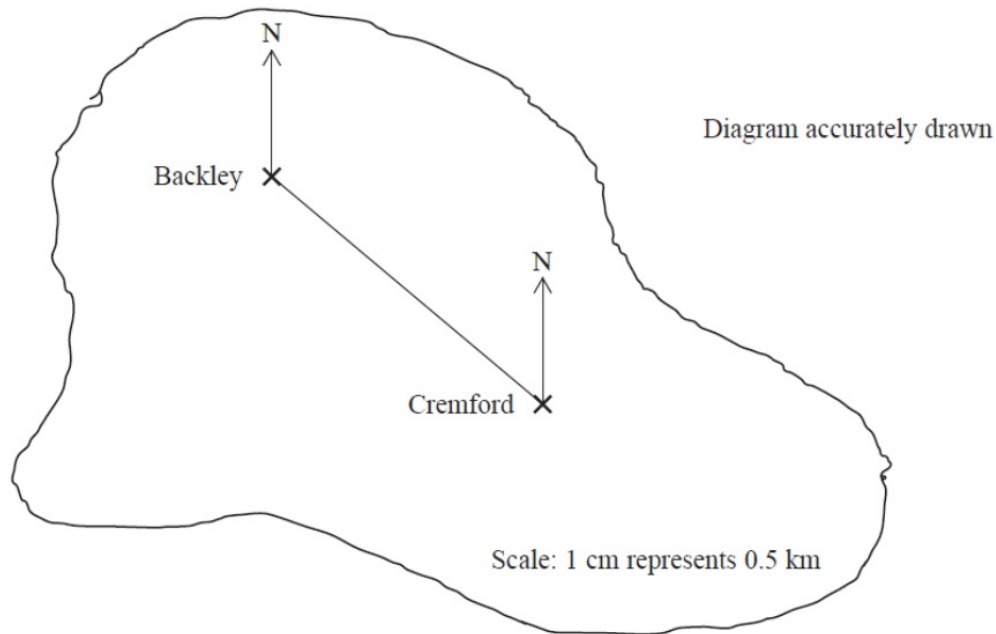
$$b^\circ = \frac{180}{5} = 36^\circ$$

$$6b^\circ \dots 6 \times 36$$

$$= \underline{\hspace{2cm}} 216^\circ \checkmark [4]$$

Edexcel

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.

(b) Find the bearing of Cremford from Backley.



Created by W Neill

9 Here is a map of an island.

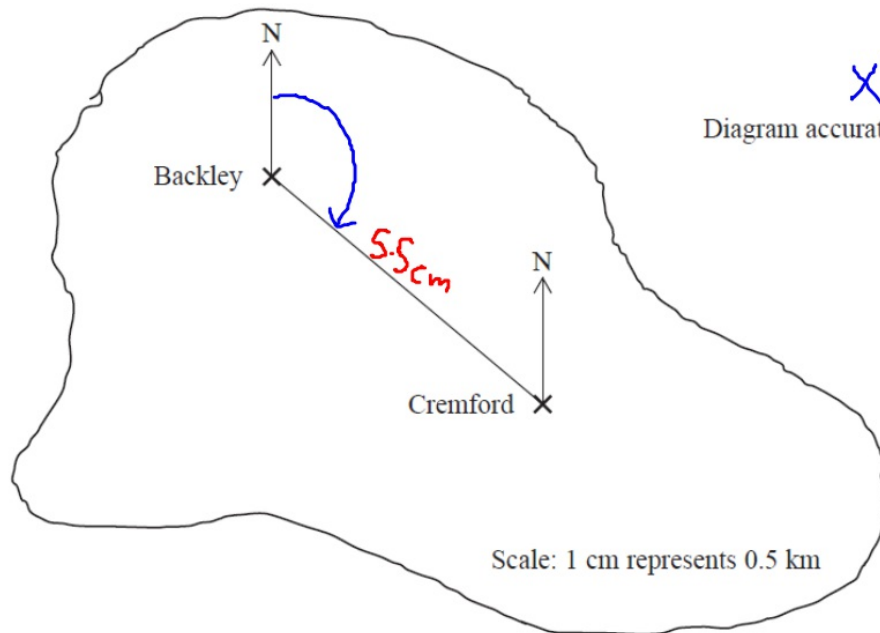


Diagram accurately drawn

x5.5

$$1 \text{ cm} = 0.5 \text{ km}$$

$$5.5 \text{ cm} = 2.75$$

x5.5

$$\frac{2.75}{(2)} \text{ km}$$

$$\frac{130^\circ}{(1)}$$

$$128^\circ - 132^\circ$$

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

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

(b) Find the bearing of Cremford from Backley.

AQA

8

Here is a map of a town.

Scale: 1 cm represents 200 m



North



Video created by W Neill

8 (b) Circle the three-figure bearing of the Monument from the Park.

G11

[1 mark]

090°

180°

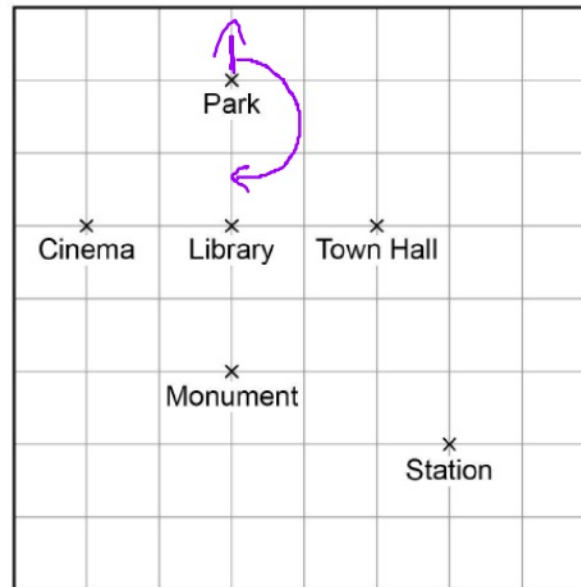
270°

360°

8

Here is a map of a town.

Scale: 1 cm represents 200 m



Video created by W Neill

8 (b) Circle the three-figure bearing of the Monument from the Park.

G11

[1 mark]

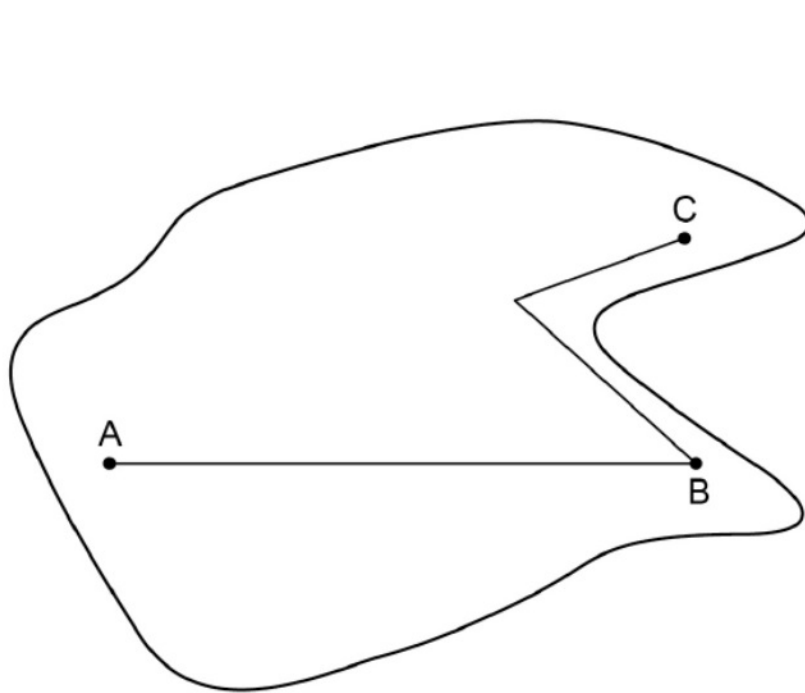
090°

180°

270°

360°

- 17 Here is a map of an island with cities A, B and C.
The straight lines represent roads.

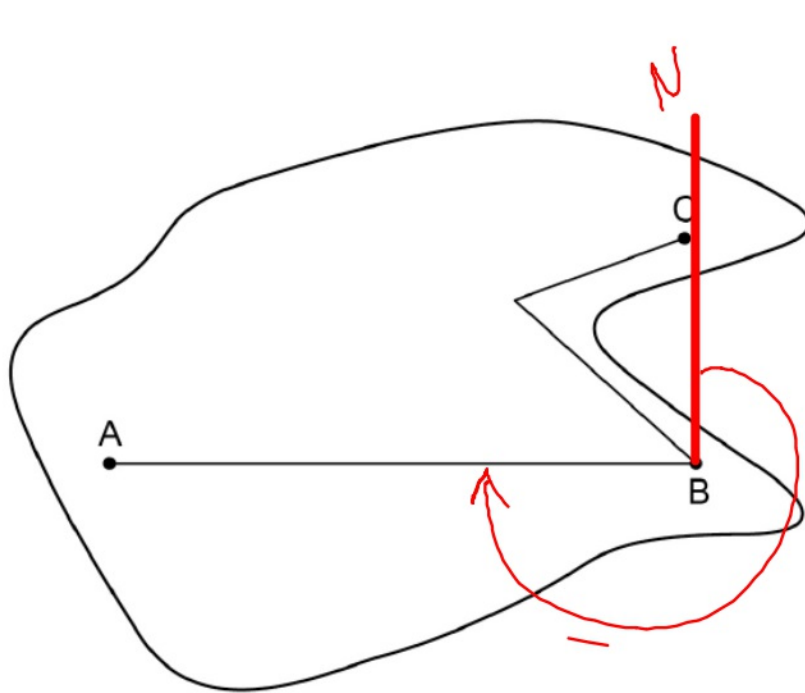


- 17 (a) A is due West of B.

G11 Write down the bearing of A from B.
[1 mark]

Answer _____

17 Here is a map of an island with cities A, B and C.
The straight lines represent roads.



17 (a) A is due West of B.

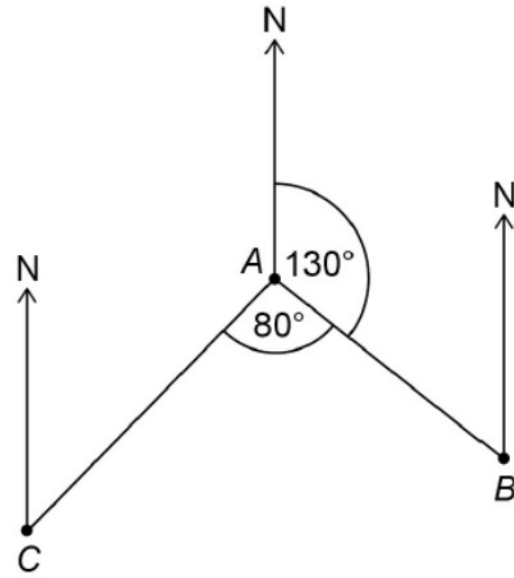
G11 Write down the bearing of A from B.
[1 mark]

Answer 270 ✓

4

Video created by W Neill

Not drawn
accurately



Work out the bearing of C from A.

Circle your answer.

[1 mark]

030°

130°

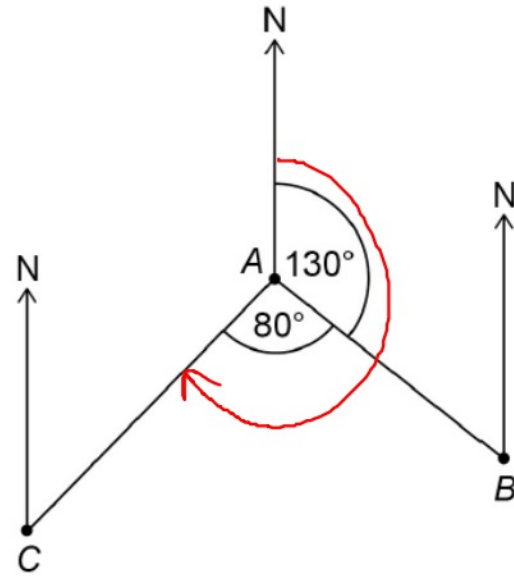
150°

210°

4

G11

Not drawn accurately



$$\begin{array}{r} 130 \\ + 80 \\ \hline 210^\circ \end{array}$$

Work out the bearing of C from A.

Circle your answer.

[1 mark]

030°

130°

150°

210°

4 The bearing of A from B is 310°

G11

Circle the bearing of B from A .

[1 mark]

050°

110°

130°

220°

4 The bearing of A from B is 310°

G11

Circle the bearing of B from A.

[1 mark]

