Name:

Exam Style Questions

Bearings

Corbettmaths

Equipment needed: Pen, Pencil, Protractor, Ruler

Guidance

1. Read each question carefully before you begin answering it.
2. Check your answers seem right.
3. Always show your workings

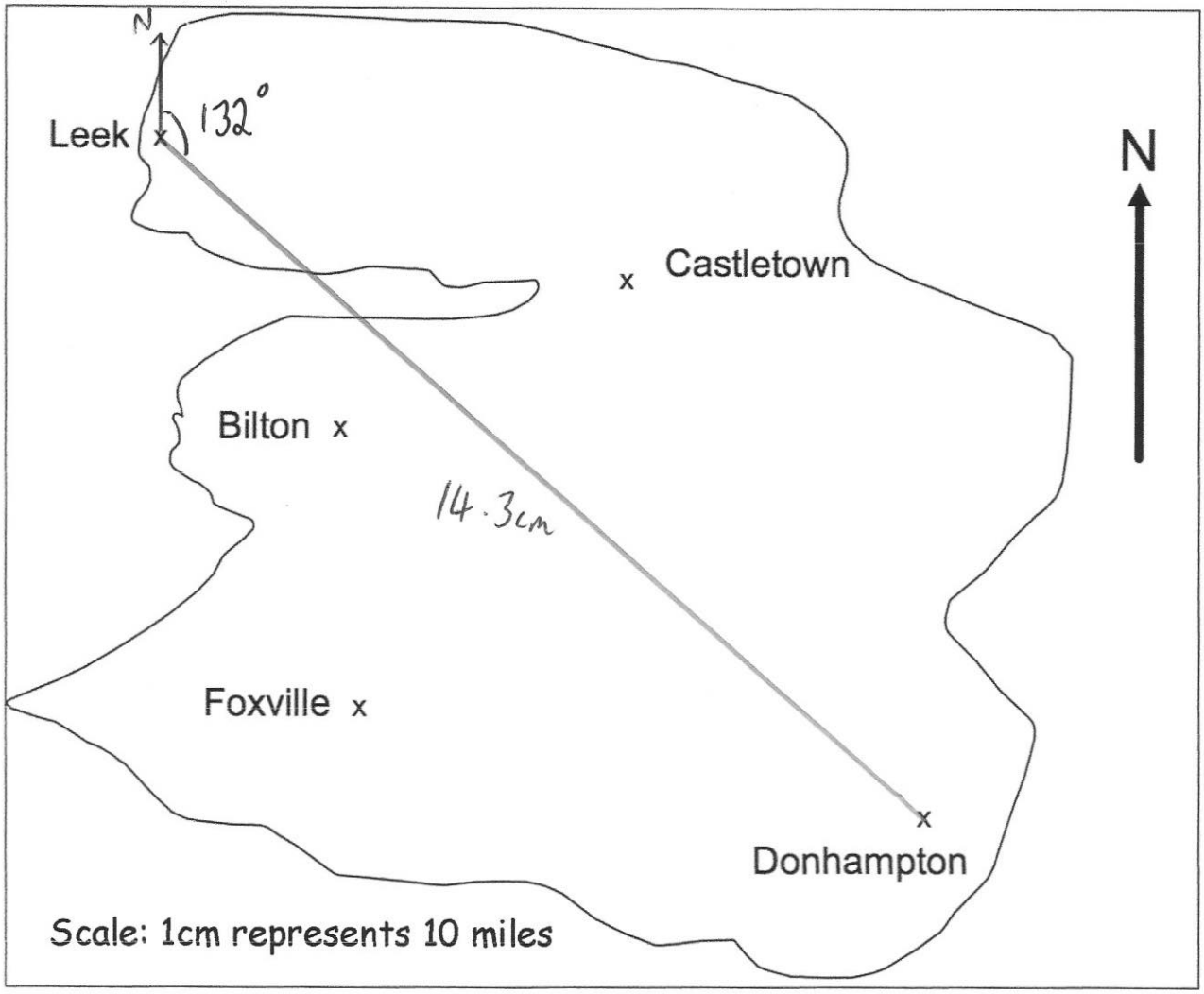
Video Tutorial

www.corbettmaths.com/contents

Video 26

Answers and Video Solutions

1. This is a map of an island.



A helicopter flies in a straight line from Leek to Donhampton.

(a) How far does the helicopter fly?

$14.3 \times 10 = 143$

* may depend on printing size.

143 .....miles

(2)

(b) Write down the bearing of Donhampton from Leek.

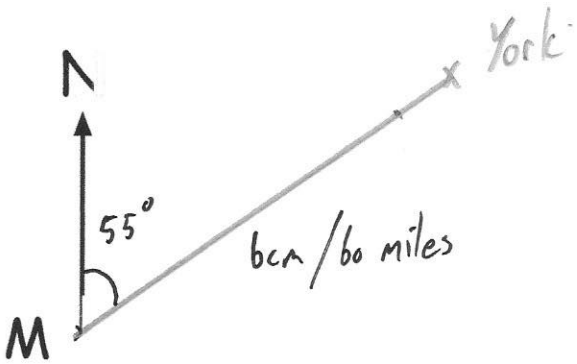
* This may vary due to printing.

132° .....°

(1)

2. The diagram shows the position of Manchester.

Scale: 1cm represents 10 miles



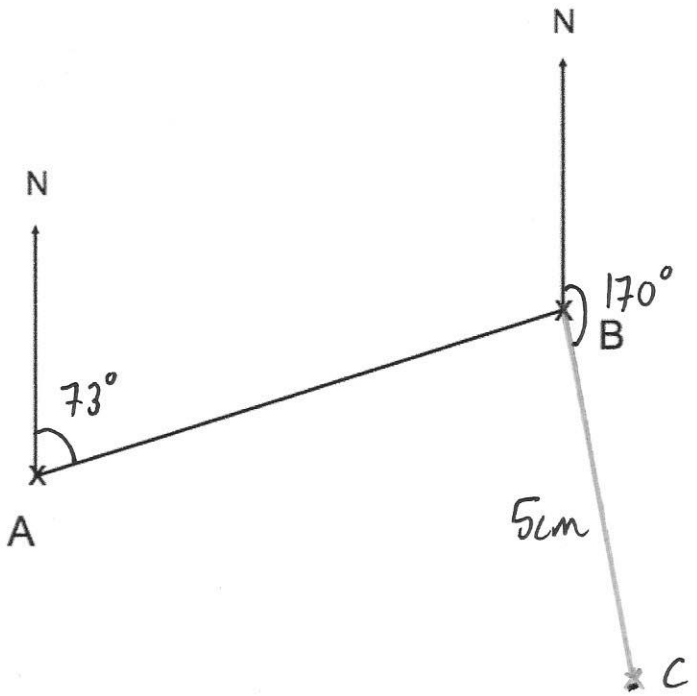
6cm

York is 60 miles away from Manchester on a bearing of 055°

Mark the position of York on the diagram.

(2)

3. The diagram shows the position of two houses, A and B, on a map.



(a) Measure the bearing of B from A.

* may vary due to printing.

073 .....°

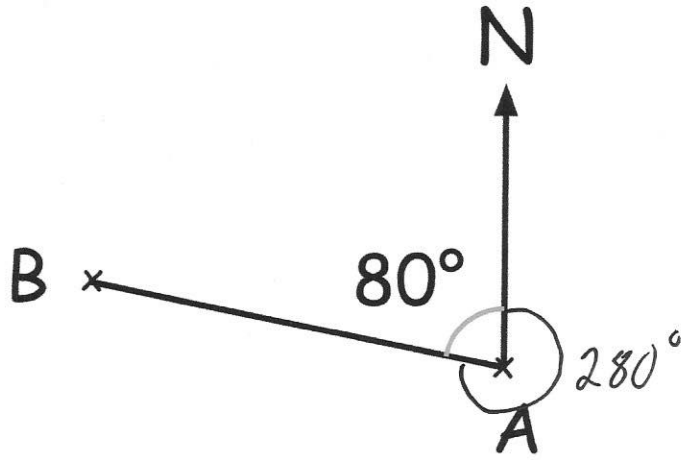
(1)

Another house C is on a bearing of 170° from B.
On the map, C is 5cm from B

(b) Mark the position of C with a cross (x) and label it C.

(2)

4. Olivia has been asked to find the bearing of B from A.
Shown below is her method.



360 - 80 = 280°

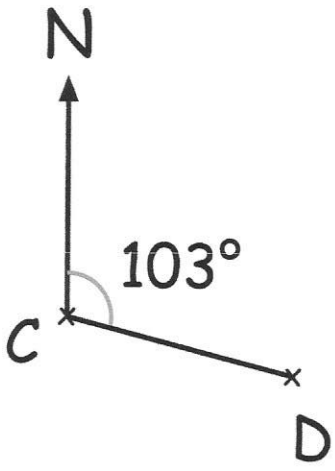
Olivia's answer is 080°

Explain Olivia's mistake.

Olivia has measured the anticlockwise angle.
The correct answer is 280°.

(2)

5. Oliver has been asked to find the bearing of C from D.
Shown below is his method.



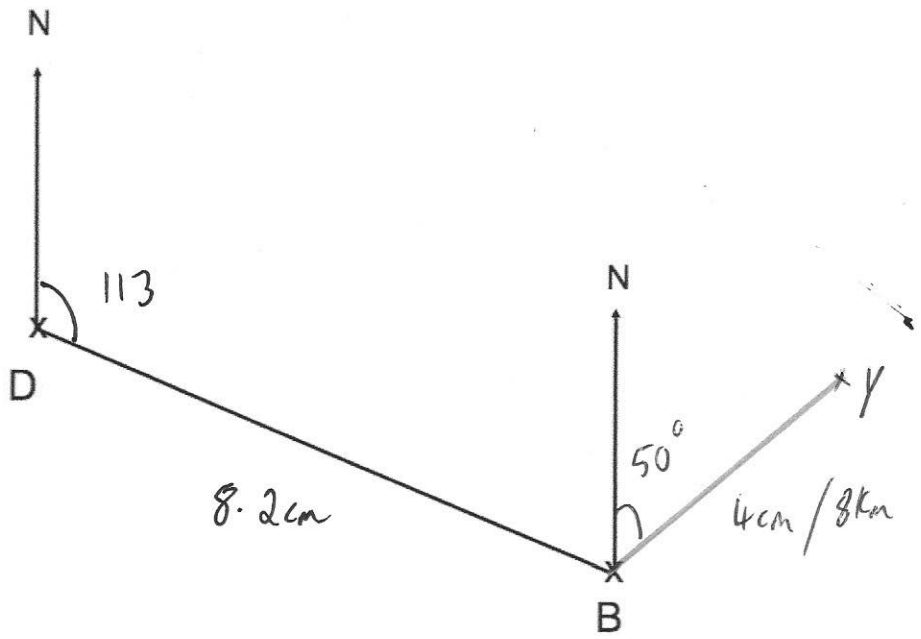
Olivia's answer is 103°

Explain Olivia's mistake.

Olivia has measured the bearing of D from C,
not C from D.
That answer would be 283°.

(2)

6. The diagram shows the position of a boat B and a dock D.



The scale of the diagram is 1cm represents 2km.

(a) Work out the actual distance between the dock and the boat.

$8.2 \times 2 = 16.4$

16.4 .....km

* may vary due to printing.

(2)

(b) Measure the bearing of the boat B from the dock D.

* may vary due to printing.

113 .....°

(1)

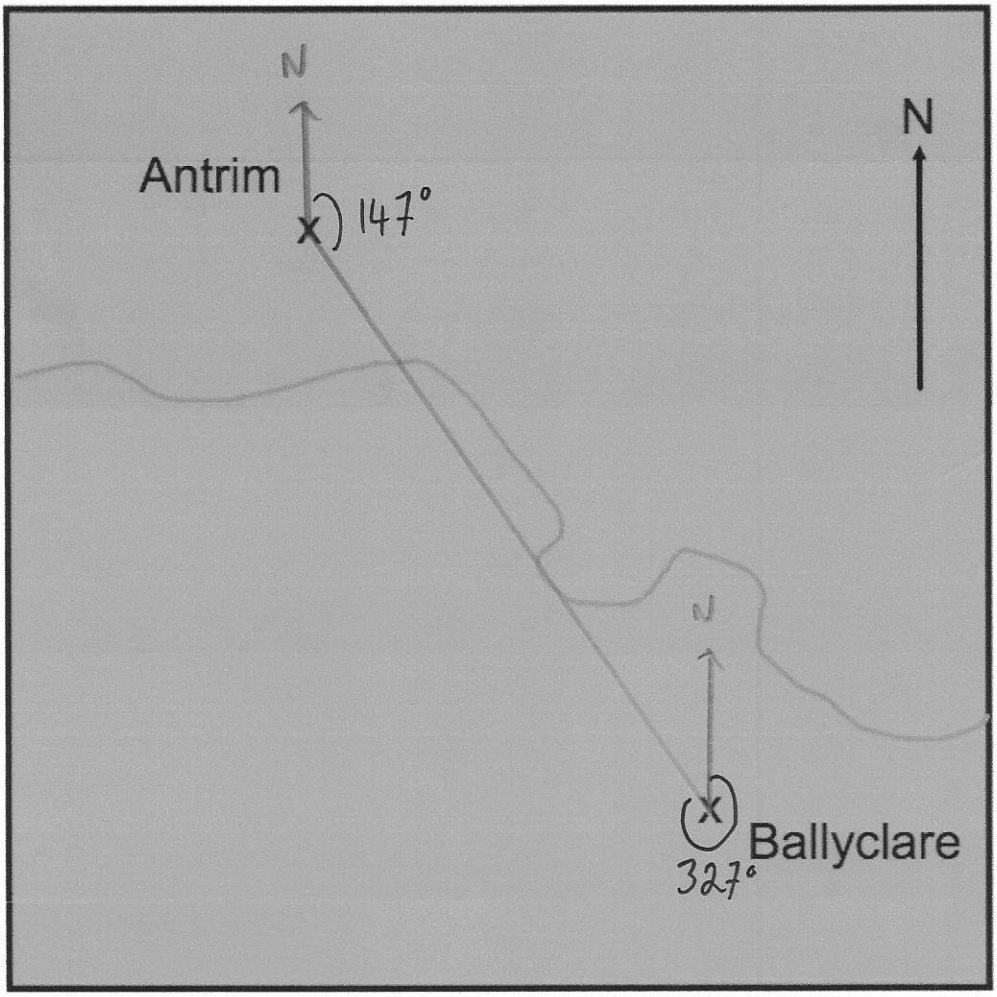
A yacht Y is 8km from the boat B on a bearing of 050°

(c) On the diagram, mark the position of yacht Y with a cross (x).
Label it Y.

$8 \div 2 = 4$ cm

(2)

7. The map below shows the position of two towns.



(a) Find the bearing of Ballyclare from Antrim.

* This may vary due to printing

147° .....°

(1)

(b) Find the bearing of Antrim from Ballyclare.

* This may vary due to printing.

327° .....°

(1)

8.

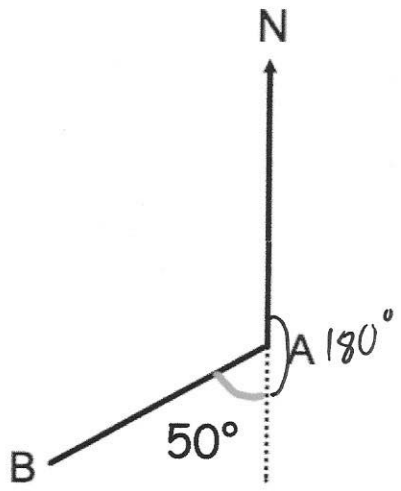


Diagram not drawn accurately

Work out the bearing of B from A.

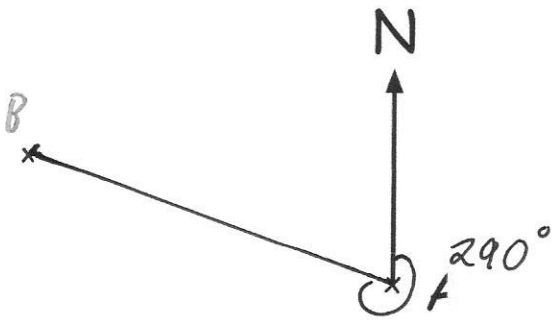
$180 + 50 = 230°$

230 °

(2)

9. Sam stands at point A.

Scale: 1cm represents 20m



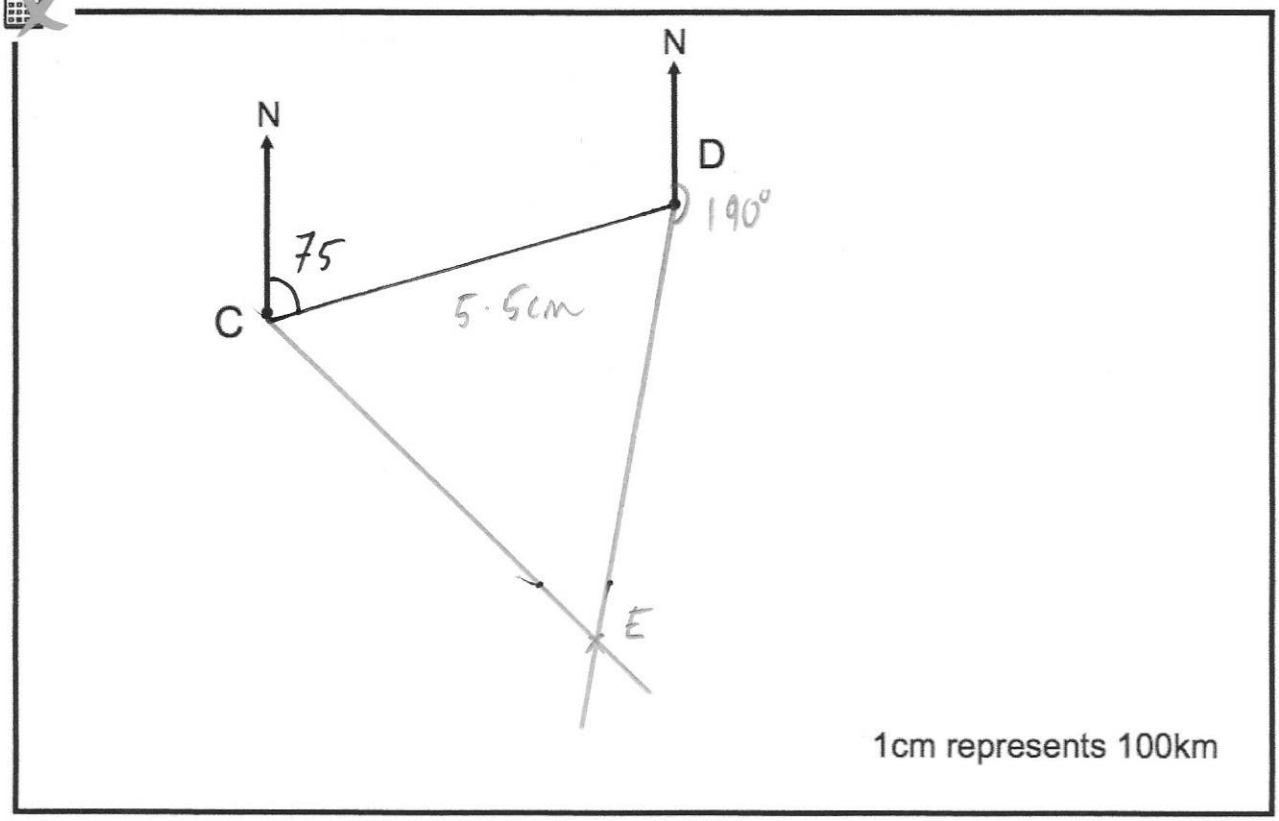
$100 \div 20 = 5$ cm

Sam runs 100m on a bearing of 290°

Mark Sam's finishing position, B, with a cross.

(2)

10. The diagram shows the position of two cities C and D.



(a) Work out the actual distance of D from C.

$5.5 \times 100 = 550$

550 .....km

(2)

(b) Find the three figure bearing of D from C.

075 .....°

(1)

E is South-East of C.

(c) Write down the bearing of E from C.

135 .....°

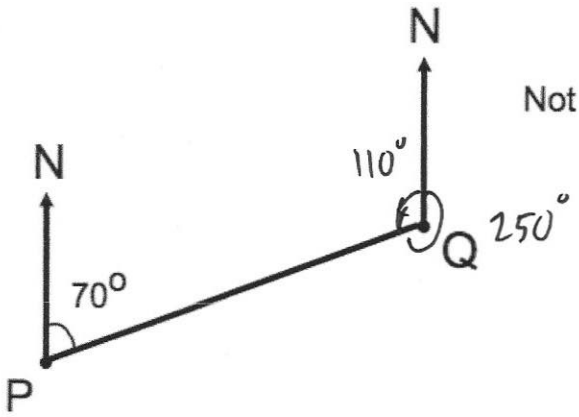
(1)

E is also on a bearing of 190° from D.

(d) Mark the position of E on the diagram.

(2)

11. The diagram shows the position of two airplanes, P and Q.



The bearing of Q from P is 070°

Calculate the bearing of P from Q.

250 .....°

(2)

12. The bearing of C from D is 165°

Calculate the bearing of D from C.

$165 + 180 = 345$

345 .....°

(2)

13. The bearing of F from G is 300°

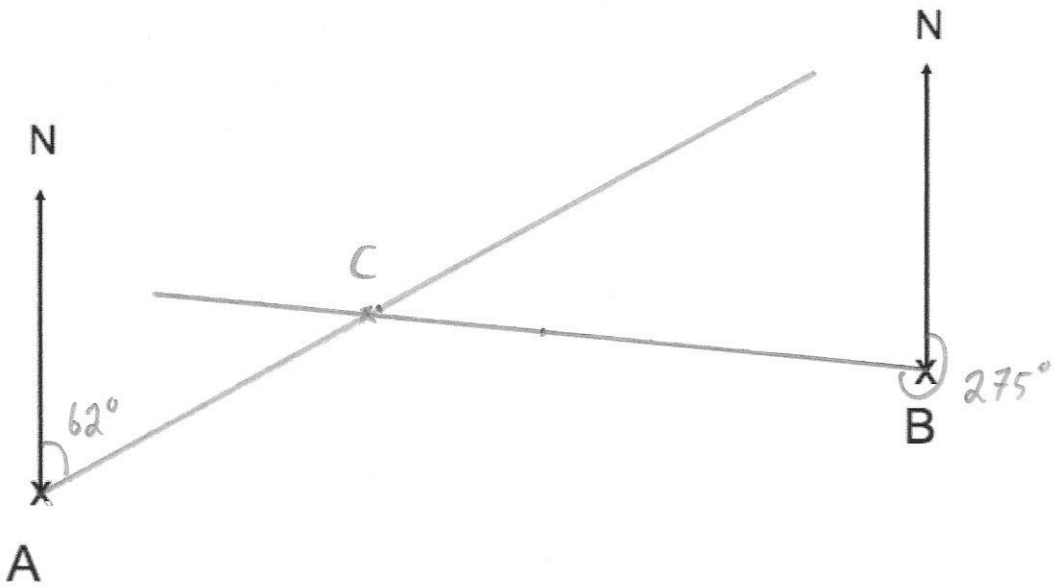
Calculate the bearing of G from F.

$300 - 180 = 120$

120 .....°

(2)

14. The diagram shows the position of two people, A and B, who are on their Duke of Edinburgh expedition.

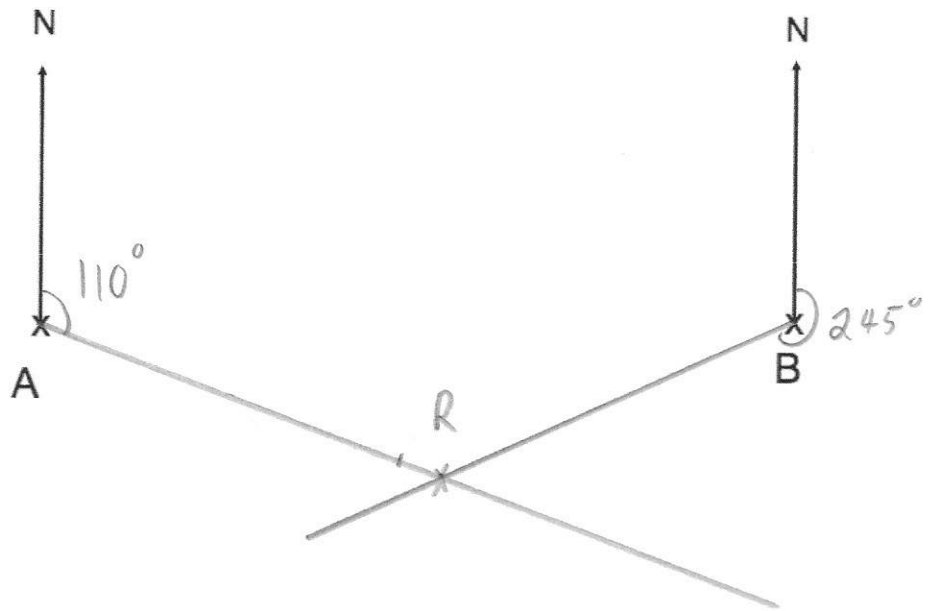


The bearing of person C from person A is 062°
The bearing of person C from person B is 275°

In the space above, mark the position of person C with a cross (x). Label it C.

(3)

15. The diagram shows the position of two towns, A and B.

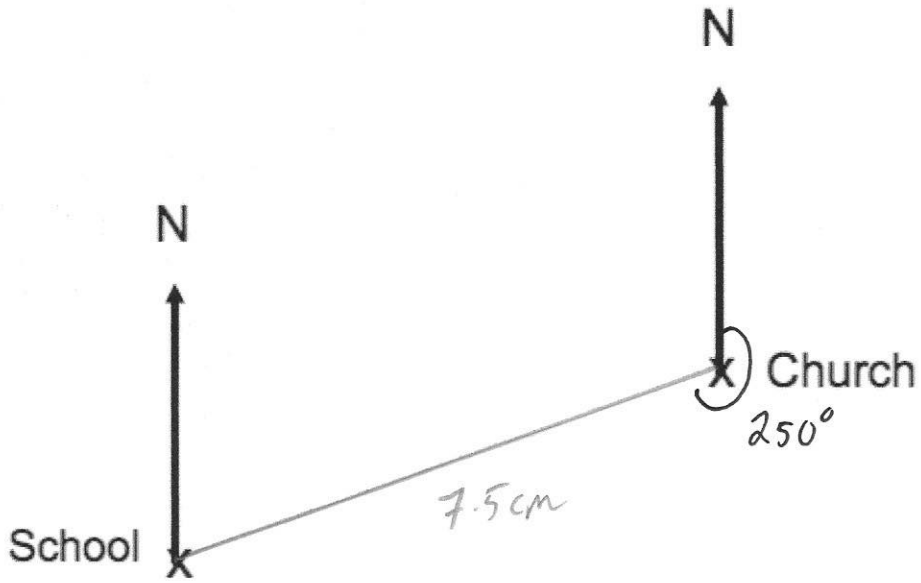


A rugby club, R, has bearing of 110° from town A.
The rugby club, R, has bearing 245° from town B.

In the space above, show the position of the rugby club R.
Mark the position with a cross (x) and label it R.

(3)

16. The map below shows the position of a church and a school.



The scale of the map is 1 : 10,000

(a) Find the actual distance between the church and school.
Give your answer in metres.

* May vary due to printing size.

$7.5 \times 10000 = 75000cm$

$75000 \div 100 = 750m$

750 .....m

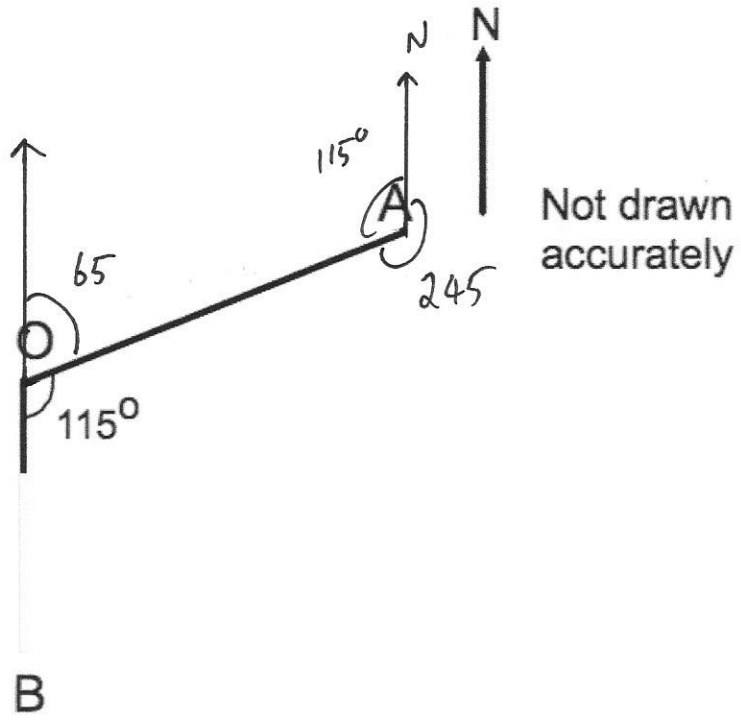
(2)

(b) Find the bearing of the school from the church.

250 .....°

(2)

17. Gregory is at O and there are two roads, one towards A and another towards B. B is due South of O.



Gregory walks towards A.

(a) On what bearing does he walk?

065 .....°

(2)

Joshua is at A and walks towards Gregory.

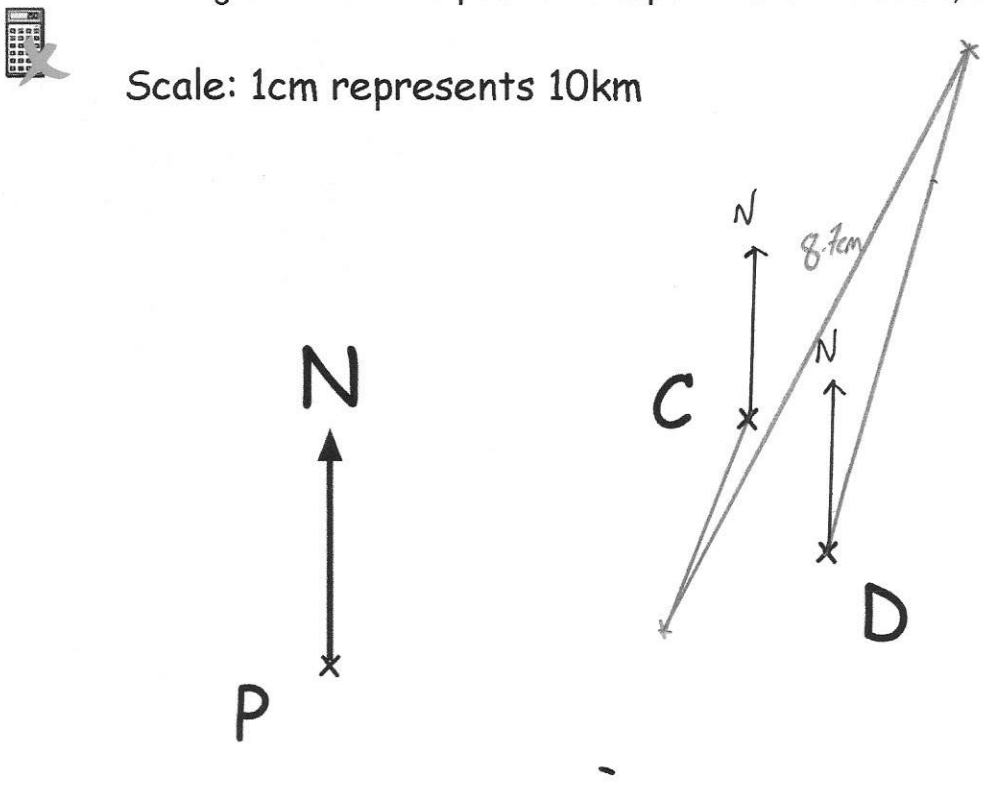
(b) On what bearing does he walk?

360 - 115 = 245

245 .....°

(2)

18. The diagram shows the position of a port P and two boats, C and D at 6am.



Boat C sails on a course of 200° at a speed of 15km/h $15 \times 2 = 30$ km 3cm

Boat D sails on a course of 015° at a speed of 35km/h $35 \times 2 = 70$ km 7cm

Find how far apart the boats are at 8am.
Give your answer in kilometres.

2 hours

8.7 cm

87 km

87 .....km

(4)