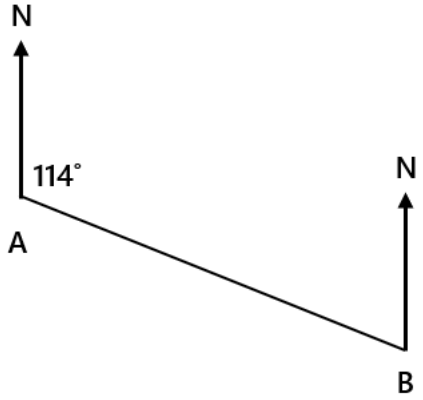
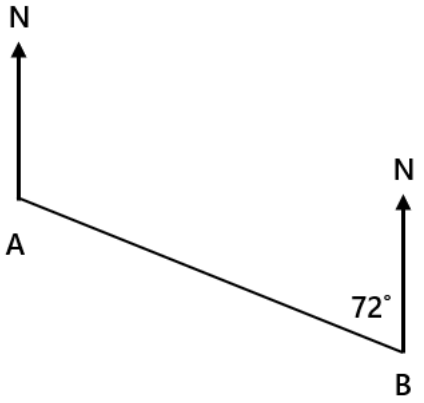
BEARINGS

1) Work out the bearing of B from A.



114°

2) Work out the bearing of B from A.



180 – 72 = 108°

3) Two points A and B are shown on the diagram below.

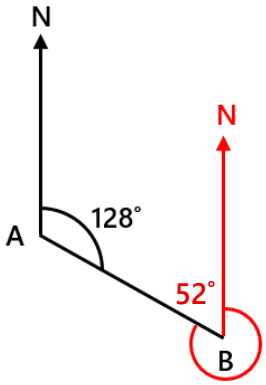


Diagram not accurately drawn

a. Work out the bearing of B from A.

128°

b. Work out the bearing of A from B.

Co-interior angles add to 180°

180 – 128 = 52°

360 – 52 = 308°

4) Two points A and B are shown on the diagram below.

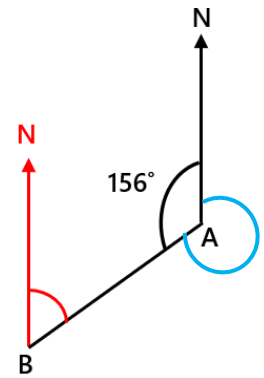


Diagram not accurately drawn

a. Work out the bearing of B from A.

360 – 156 = 204°

b. Work out the bearing of A from B.

Co-interior angles add to 180°

180 – 156 = 024°

5) Three points S, R and Q are shown on the diagram below.

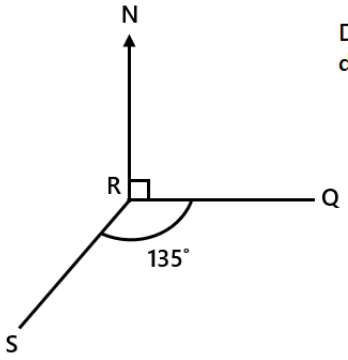


Diagram not accurately drawn

Work out the bearing of S from R.

90 + 135 = 225°

6) Three points R, S and Q are shown on the diagram below.

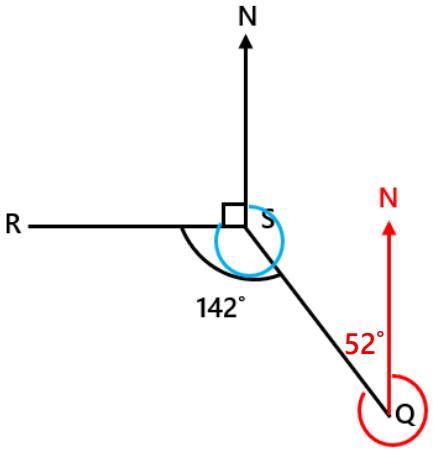


Diagram not accurately drawn

a. Work out the bearing of R from S.

360 – 90 = 270°

b. Work out the bearing of S from Q.

360 – 142 – 90 = 128°

180 – 128 = 52°

360 – 52 = 308°

7) Three points P, R and Q are shown on the diagram below.

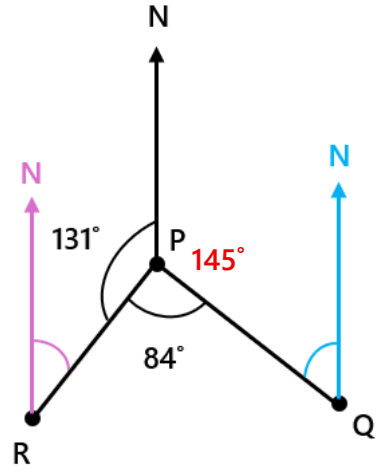


Diagram not accurately drawn

a. Work out the bearing of R from P.

360 – 131 – 84 = 145°

145 + 84 = 229°

b. Work out the bearing of P from Q.

Co-interior angles add to 180°

180 – 145 = 35°

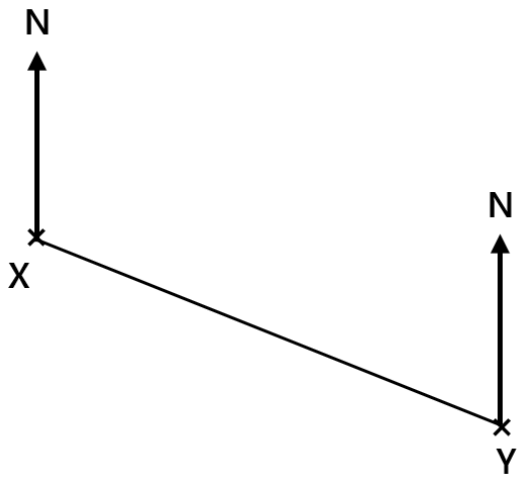
360 – 35 = 325°

c. Work out the bearing of P from R.

Co-interior angles add to 180°

180 – 131 = 049°

8) Two points X and Y are shown on the diagram below.



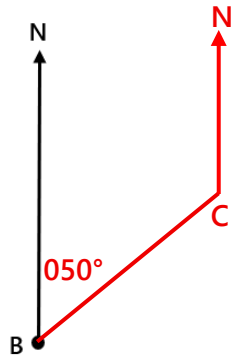
a. Measure the bearing of Y from X.

110°

b. Measure the bearing of X from Y.

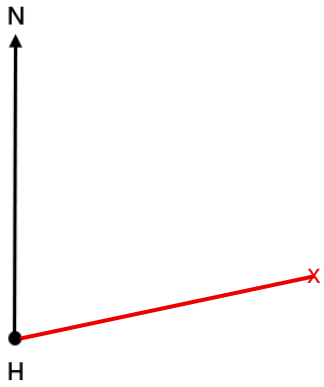
290°

9) The diagram shows the point B.



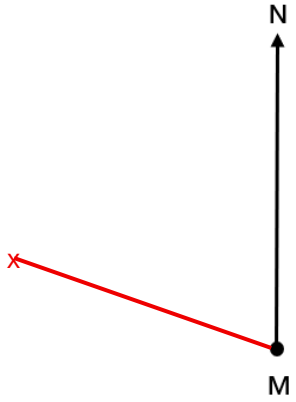
C is 3 cm from B on a bearing of 050˚.
Draw the three-figure bearing of C from B.

10) The diagram shows the position of a hospital, H, on a map.



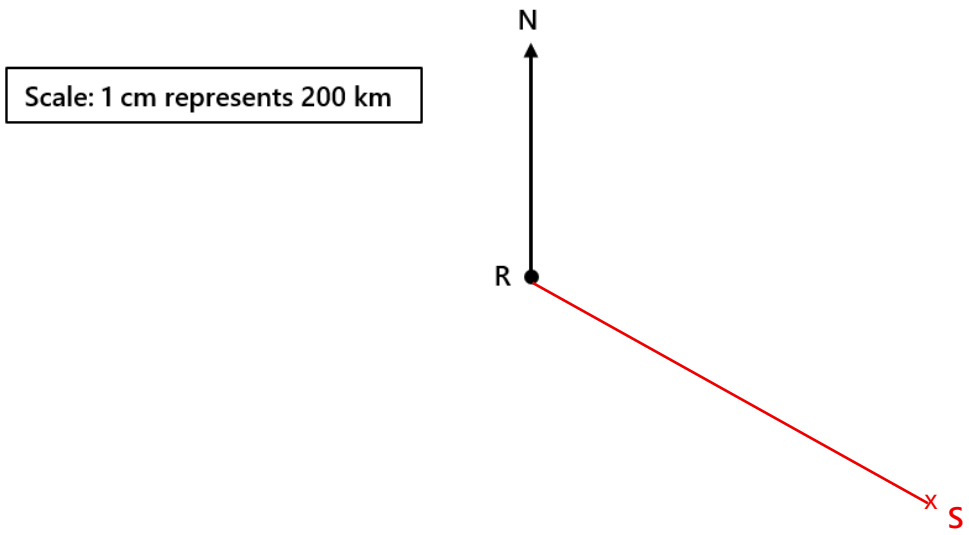
A school is 8 km from the hospital on a bearing of 078˚.
Mark the position of the school with a cross (x).
Use a scale of 1 cm to 2 km. 4 cm = 8 km

11) The diagram shows the position of a movie theatre, m, on a map.



A church is 7000 metres from the movie theatre on a bearing of 290˚.
Mark the position of the church with a cross (x).
Use a scale of 1 cm to 2 km. 1 cm to 2000 metres → 7000 ÷ 2000 = 3.5 cm

12) The scale diagram shows the position of a city, R, on a map.

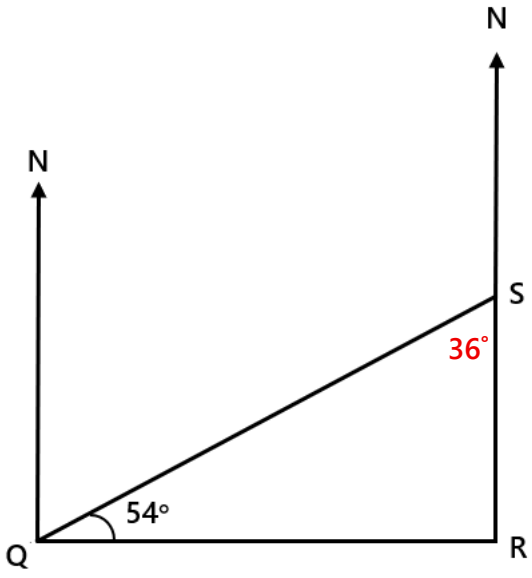


Another city, S, is on a bearing of 120° from R.
The distance from R to S is 1200 km. 6 cm = 1200 km

a. Mark the position of S from R with a cross (x).
   Label the cross S.

b. Express the scale of the map as a ratio in the form 1 : n.
   1 cm : 200 km
   1 cm : 200,000 m
   1 cm : 20,000,000 cm
   1 : 20,000,000

13) Triangle QRS is a right-angled triangle.
Work out the bearing of Q from S.



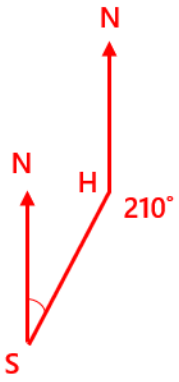
Angles in a triangle add to 180°
180 – 54 – 90 = 36°

180 + 36 = 216°

14) The bearing of a ship from a harbour is 210°.
Work out the bearing of the harbour from the ship.

360 – 210 = 150°

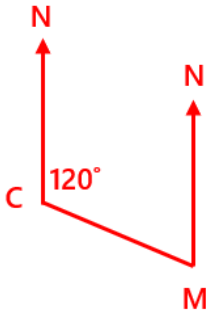
180 – 150 = 030°



15) The bearing of a mountain summit from a campsite is 120°.
Work out the bearing of the campsite from the mountain summit.

180 – 120 = 60°

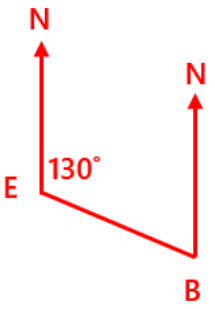
360 – 60 = 300°



16) The bearing of Big Ben from the London Eye is 130°.
Work out the bearing of the London Eye from Big Ben.

180 – 130 = 50°

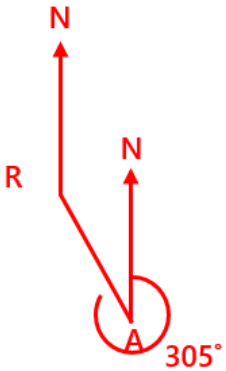
360 – 50 = 310°



17) The bearing of Rome from Athens is 305°.
Work out the bearing of Athens from Rome.

360 – 305 = 55°

180 – 55 = 125°



18) What is the bearing that points northeast?

045°

19) What is the bearing that points southwest?

225°

Challenge

20) The diagram shows three points B, C and D.
Given that the angle CDB is 5° larger than the angle CBD, work out the bearing of D from B.

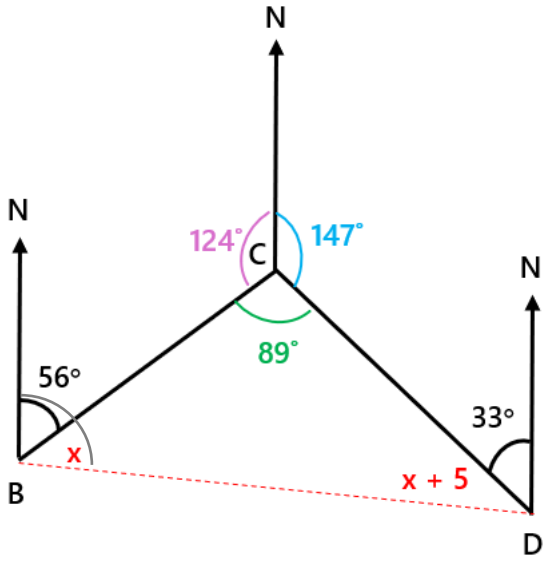


Diagram not accurately drawn

Co-interior angles add to 180°
180 – 56 = 124°

Co-interior angles add to 180°
180 – 33 = 147°

Angles around a point add to 360°
360 – 124 – 147 = 89°

Angles in a triangle add to 180°
x + x + 5 + 89 = 180
2x + 94 = 180
2x = 86
x = 43°

Bearing of D from B:
56 + 43 = 099°