

GCSE Maths: Bearings: measuring, drawing and back bearings (Higher): answers

GCSE Maths - Loci, Bearings and Vectors - Higher - Lesson 22.6

Answers. Final answers to the worksheet questions. Full step-by-step solutions for every question are free at websink.site/gcse/maths/ch22-constructions-loci-bearings-vectors/higher/bearings-measuring-drawing-and-back-bearings/

Exercise 22G Bearings: reading, drawing and back bearings Non-calculator

1 Write the bearing of each compass direction.

(a) North

Answer: 000°

(b) East

Answer: 090°

(c) South

Answer: 180°

(d) West

Answer: 270°

(e) North-east

Answer: 045°

(f) South-west

Answer: 225°

2 Write each angle as a three-figure bearing.

(a) 8°

Answer: 008°

(b) 72°

Answer: 072°

(c) 5°

Answer: 005°

(d) 120°

Answer: 120°

3 Write down the bearing shown by each red line.

(a)



Answer: 035°

(b)



Answer: 110°

(c)



Answer: 205°

(d)



Answer: 318°

4 Draw each line. Use a protractor to measure the bearing from the north line at P. Label the end of each line Q.

(a) From P, a line 6 cm long on a bearing of 060°.

Answer: Line 6 cm drawn at 060° from P

(b) From P, a line 6 cm long on a bearing of 135°.

Answer: Line 6 cm drawn at 135° from P

(c) From P, a line 6 cm long on a bearing of 250°.

Answer: Line 6 cm drawn at 250° from P

(d) From P, a line 6 cm long on a bearing of 300°.

Answer: Line 6 cm drawn at 300° from P

5 The bearing of Q from P is given. Work out the bearing of P from Q.

(a) 040°

Answer: 220°

(b) 125°

Answer: 305°

(c) 200°

Answer: 020°

(d) 305°

Answer: 125°

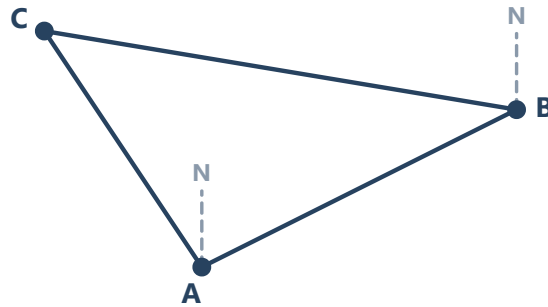
(e) 090°

Answer: 270°

(f) 270°

Answer: 090°

- 6 The diagram shows the positions of three villages A, B and C, drawn accurately. Use a protractor to measure each bearing.



- (a) The bearing of B from A.

Answer: 063° (accept 061° to 065°)

- (b) The bearing of C from A.

Answer: 326° (accept 324° to 328°)

- (c) The bearing of C from B.

Answer: 279° (accept 277° to 281°)

- 7 Tom writes the bearing of a town as 5°. Explain why this is not a correct bearing, and write it correctly.

Answer: 005° (three figures)

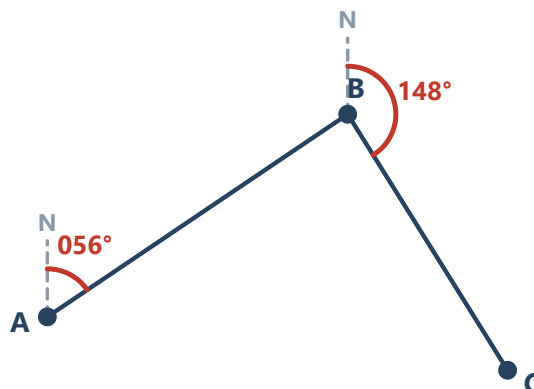
- 8 The bearing of B from A is 130°. **Show that** the bearing of A from B is 310°.

Answer: $130 + 180 = 310$

- 9 The bearing of a ship from a lighthouse is 200°. Work out the bearing of the lighthouse from the ship.

Answer: 020°

- 10 The bearing of B from A is 056°. The bearing of C from B is 148°. Work out the size of angle ABC.

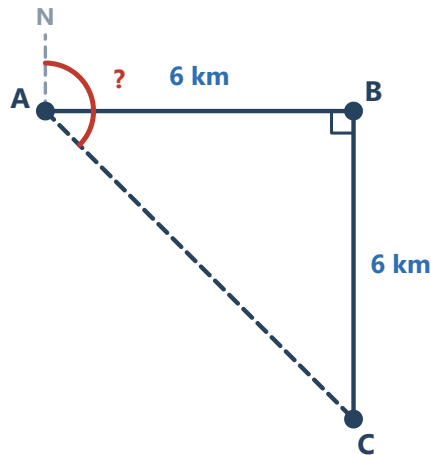


Answer: 88°

- 11** Three points A, B and C lie on a straight line, with B between A and C. The bearing of B from A is 072° . Work out the bearing of A from C. Give a reason for your answer.

Answer: 252°

- 12** A school, B, is 6 km due east of a station, A. A park, C, is 6 km due south of B. Work out the bearing of C from A.



Answer: 135°

- 13 Challenge.** The bearing of A from B is **three times** the bearing of B from A. Work out the bearing of B from A.

Answer: 090°