

# BEARINGS

## A WHAT IS A BEARING?

### A.1 DRAWING BEARINGS

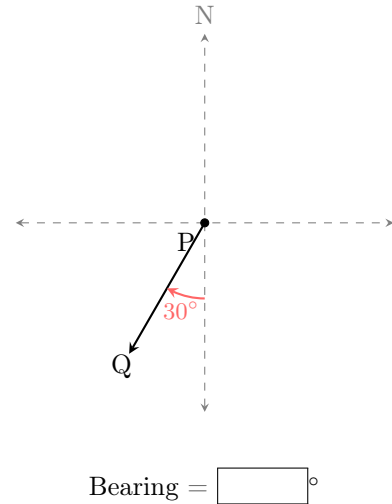
**Ex 1:** Draw a diagram to represent the bearing of point B from point A, if the bearing is  $110^\circ$ .

**Ex 2:** Draw a diagram to represent the bearing of point Y from point X, if the bearing is  $065^\circ$ .

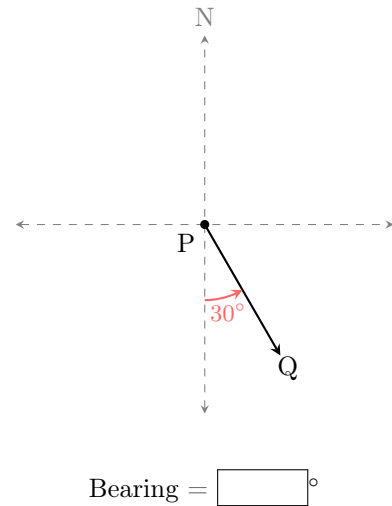
**Ex 3:** Draw a diagram to represent the bearing of point R from point Q, if the bearing is  $290^\circ$ .

### A.2 DETERMINING BEARINGS FROM A DIAGRAM

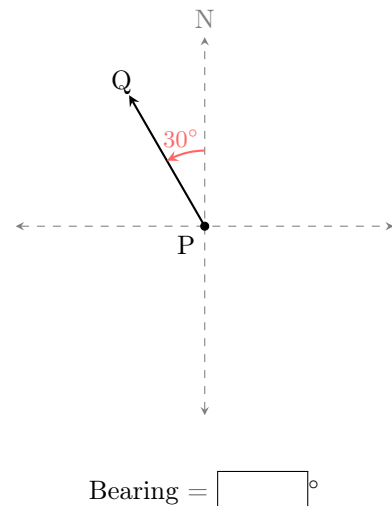
**Ex 4:** Determine the bearing of point Q from point P from the diagram below.



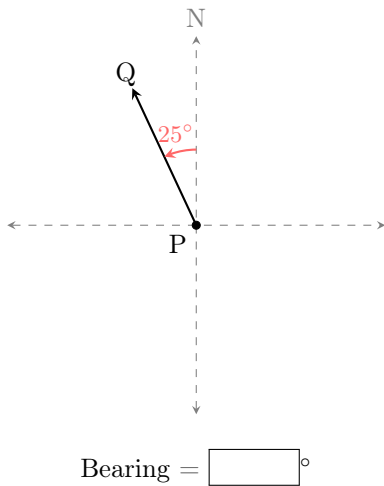
**Ex 5:** Determine the bearing of point Q from point P from the diagram below.



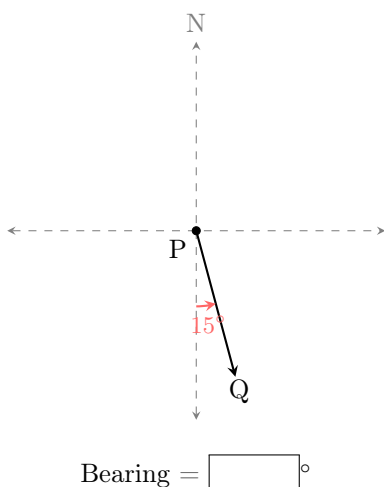
**Ex 6:** Determine the bearing of point Q from point P from the diagram below.



**Ex 7:** Determine the bearing of point Q from point P from the diagram below.

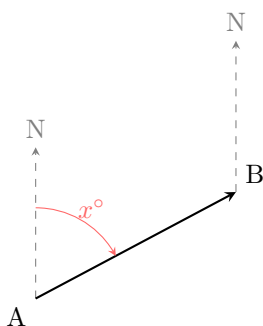


**Ex 8:** Determine the bearing of point Q from point P from the diagram below.



### A.3 FINDING BACK BEARINGS

**Ex 9:** You know the bearing of B from A is  $x^\circ$  with  $0^\circ \leq x < 180^\circ$ .



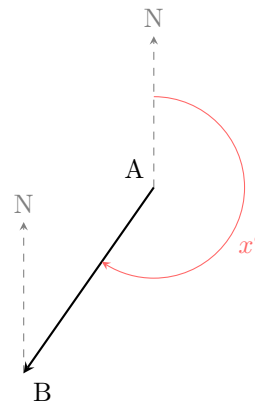
- Using the diagram, write the bearing of A from B in terms of  $x$ .

°

- If  $x^\circ = 072^\circ$ , find the bearing of A from B.

°

**Ex 10:** You know the bearing of B from A is  $x^\circ$  with  $180^\circ \leq x < 360^\circ$ .



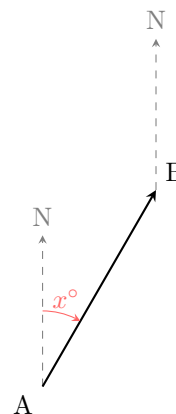
- Using the diagram, write the bearing of A from B in terms of  $x$ .

°

- If  $x^\circ = 215^\circ$ , find the bearing of A from B.

°

**Ex 11:** You know the bearing of B from A is  $x^\circ$  with  $0^\circ \leq x < 180^\circ$ .



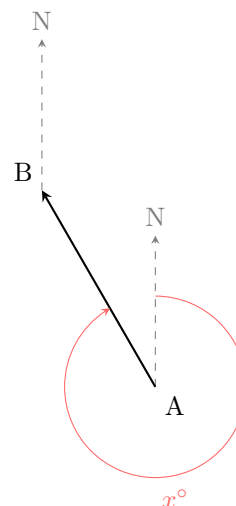
- Using the diagram, write the bearing of A from B in terms of  $x$ .

°

- If  $x^\circ = 030^\circ$ , find the bearing of A from B.

°

**Ex 12:** You know the bearing of B from A is  $x^\circ$  with  $180^\circ \leq x < 360^\circ$ .



- Using the diagram, write the bearing of A *from* B in terms of  $x$ .




- If  $x^\circ = 330^\circ$ , find the bearing of A from B.

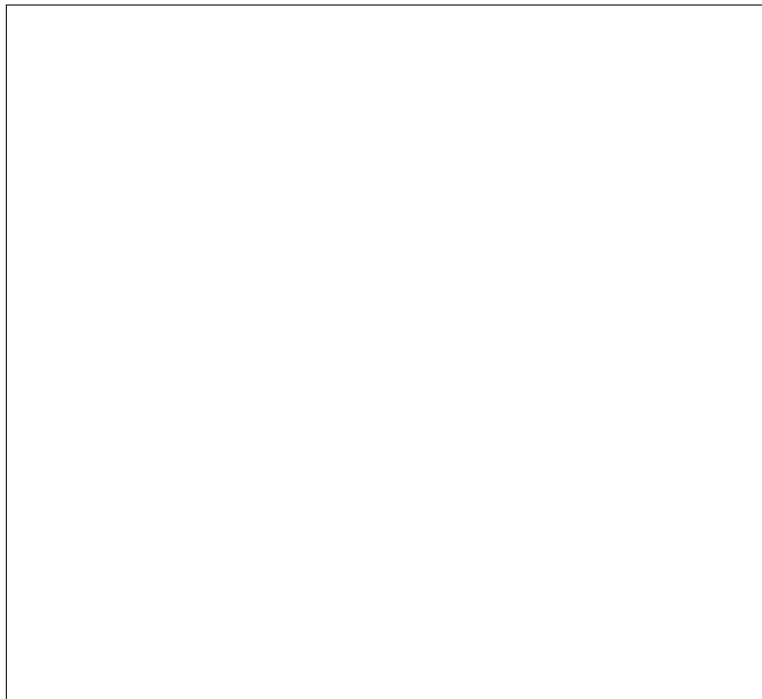



## B PROBLEM SOLVING

### B.1 CALCULATING BEARINGS FROM COMPONENTS

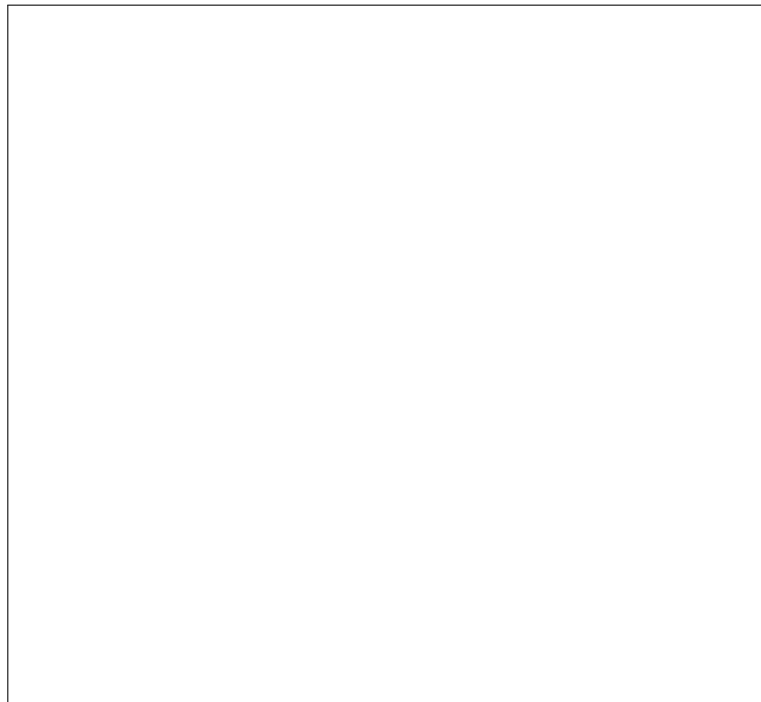
**Ex 13:**  The point C is 2 km south and 3 km west of point A. Find the bearing from A to C.


- Draw a diagram to represent this situation.
- Find the bearing from A to C.



**Ex 14:**  The point C is 3 km south and 4 km east of point A. Find the bearing from A to C.

- Draw a diagram to represent this situation.
- Find the bearing from A to C.




**Ex 15:**  The point C is 3 km south and 4 km west of point A. Find the bearing from A to C.

- Draw a diagram to represent this situation.
- Find the bearing from A to C.

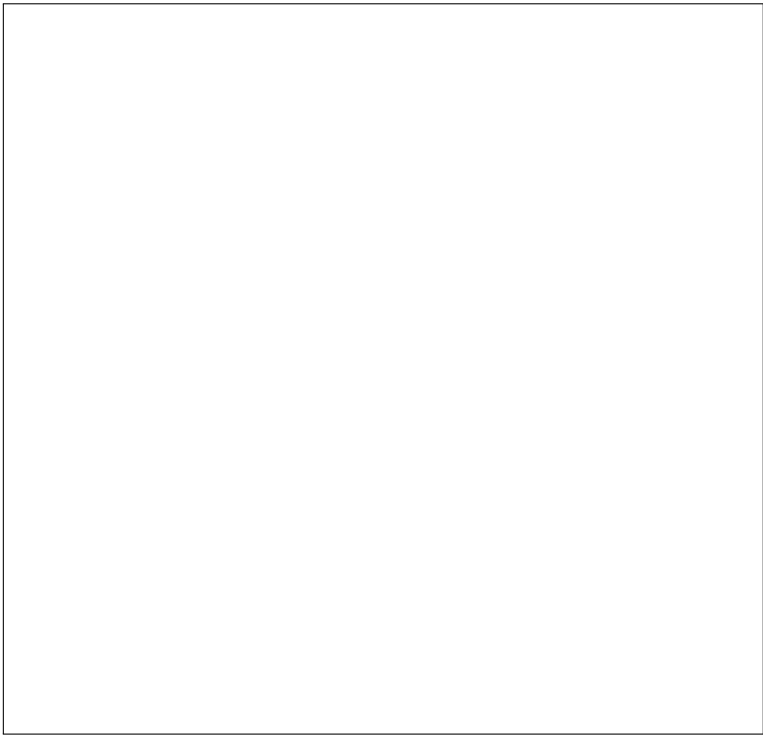


### B.2 CALCULATING THE LENGTH IN A TRIANGLE FROM BEARINGS

**Ex 16:**  The point B is 7 km from point A on a bearing of  $105^\circ$ . The distance from B to C is 5 km and the bearing from B to C is  $230^\circ$ .

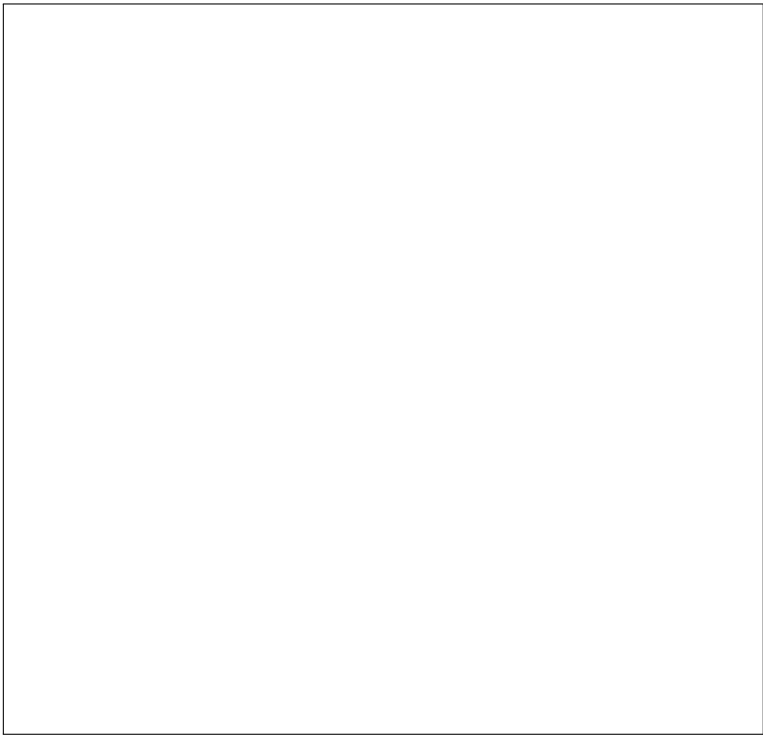
- Draw a diagram to represent this situation.
- Find the angle  $\angle ABC$ .

3. Calculate the length of AC.



**Ex 17:** The point B is 6 km from point A on a bearing of  $030^\circ$ . The distance from B to C is 4 km and the bearing from B to C is  $160^\circ$ .

- 1. Draw a diagram to represent this situation.
- 2. Find the angle  $\angle ABC$ .
- 3. Calculate the length of AC.



**Ex 18:** The point B is 9 km from point A on a bearing of  $060^\circ$ . The distance from B to C is 5 km and the bearing from B to C is  $160^\circ$ .

- 1. Draw a diagram to represent this situation.
- 2. Find the angle  $\angle ABC$ .
- 3. Calculate the length of AC.

