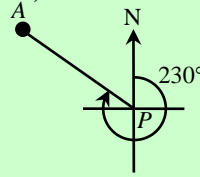


Worksheet 9.3A

Objective: To deal with simple problem of true bearing.

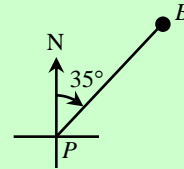
A true bearing describe a direction using an angle (from 0° to 360°) measured in a *clockwise direction* from north.

e.g. In the figure, the true bearing of A from P is 230° .

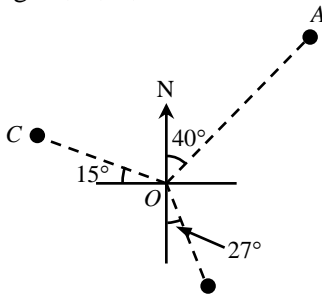


Note: The integral part of the true bearing must be expressed in 3 digits.

For example, the true bearing of B from P is written as 035° instead of 35° .



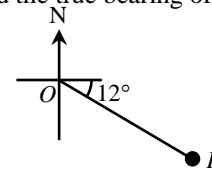
1. In the figure, A, B, C and O are on the same horizontal plane.



- Find the true bearing of A from O.
- Find the true bearing of B from O.
- Find the true bearing of C from O.

Demonstration

Find the true bearing of P from O.



Solution

In true bearing, the angle measured is in a clockwise direction from north.

$$\begin{aligned} \text{True bearing of P from O} &= 90^\circ + 12^\circ \\ &= \underline{102^\circ} \end{aligned}$$

2. Demonstration

In the figure, the true bearing of Q from P is 052° . Find the true bearing of P from Q.

Solution

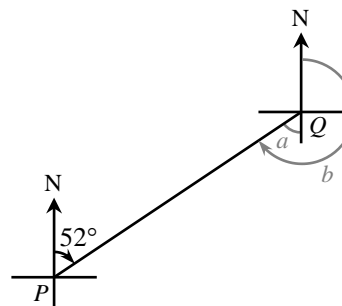
Refer to the figure, the true bearing of P from Q is b.

$$a = 52^\circ \text{ (alt. } \angle\text{s, // lines)}$$

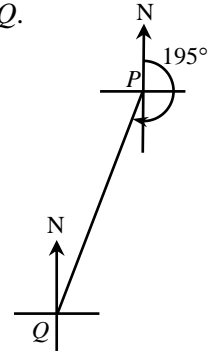
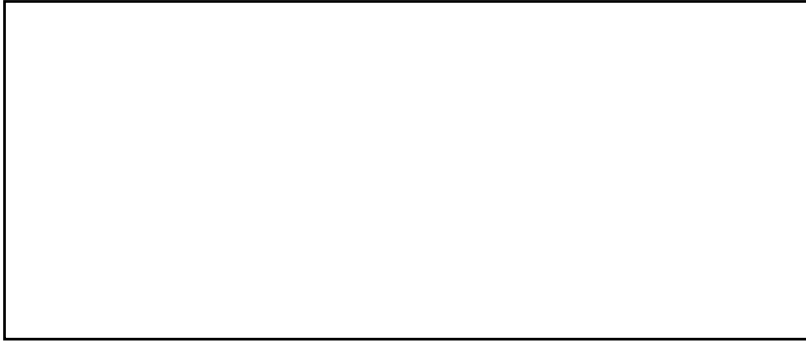
$$b = 180^\circ + 52^\circ$$

$$= 232^\circ$$

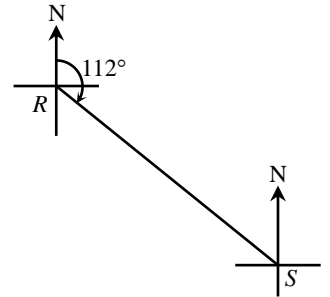
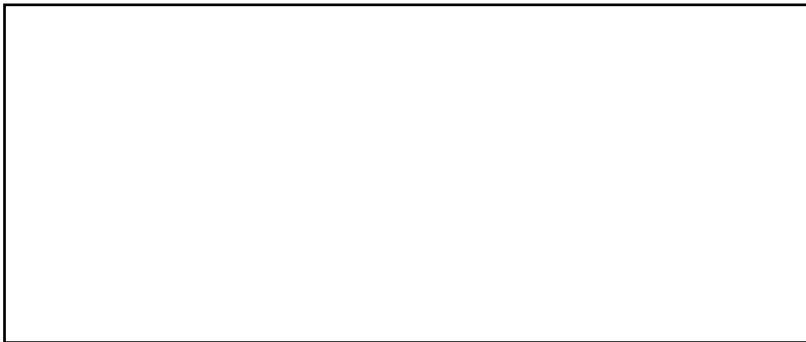
\therefore The true bearing of P from Q is 232° .



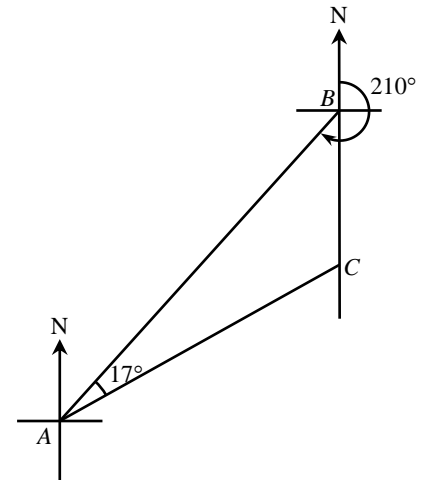
In the figure, the true bearing of Q from P is 195° . Find the true bearing of P from Q .



3. In the figure, the true bearing of S from R is 112° . Find the true bearing of R from S .



4. In the figure, A , B and C are on the same horizontal ground. C is due south of B . The true bearing of A from B is 210° and $\angle BAC = 17^\circ$. Find the true bearing of A from C .



Try More

5. In the figure, P , Q and R are on the same horizontal ground. The true bearing of Q from P is 033° . $\triangle PQR$ is an equilateral triangle.

- (a) Find the true bearing of R from P .
- (b) Find the true bearing of R from Q .

