

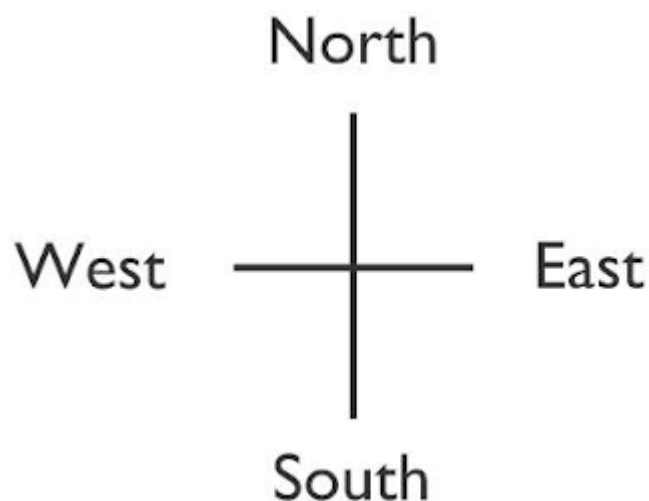
B 28- Direction Sense



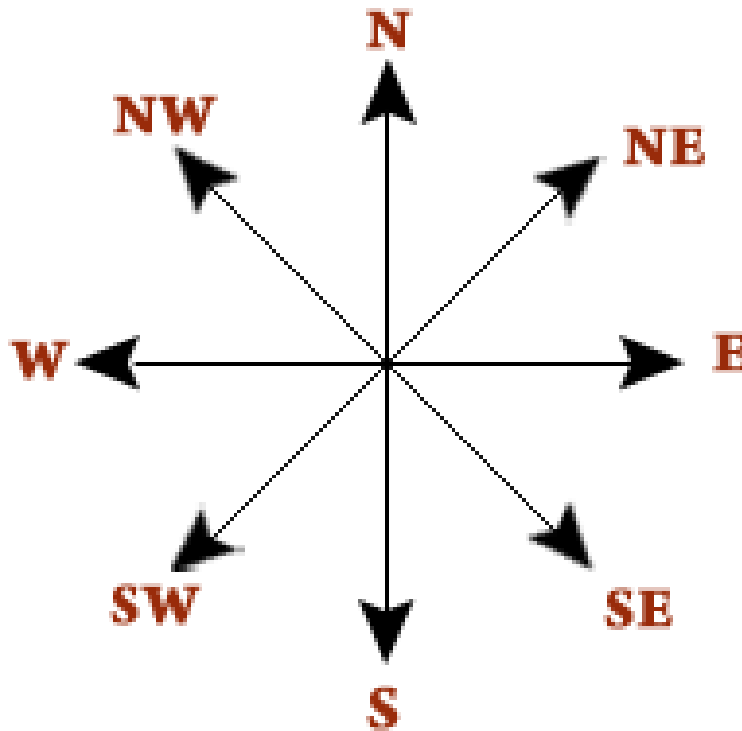
Introduction:

These questions are designed to test candidate's ability to sense direction. Questions on direction are comparatively simpler than other questions of reasoning if the aspirant possesses the right knowledge of the main four directions and four cardinal directions. Confusion is created in the question by the paper setter by giving frequent right and left turns to a specific direction.

There are four main directions - East, West, North and South as shown below



There are four cardinal directions - North-East (N-E), North-West (N-W), South-East (S-E), and South-West (S-W) as shown below:



Important Points:

- At the time of sunrise if a man stands facing the east, his shadow will be towards west.
- At the time of sunset the shadow of an object is always in the east.
- If a man stands facing the North, at the time of sunrise his shadow will be towards his left and at the time of sunset it will be towards his right.
- At 12:00 noon, the rays of the sun are vertically downward hence there will be no shadow.
- A person facing towards North, on taking left turn will face towards West and on taking the right turn towards East.
- Left turn means anticlockwise rotation and right turn means clockwise rotation. Thus a person facing towards South, on taking left turn will face towards East and on taking right turn towards West.
- A person facing towards East, on taking left turn will face towards North and on taking right turn towards South.
- A person facing towards West, on taking left turn will face towards South and on taking right turn towards North.

- A person facing towards North-West, on taking left turn will face towards South-West and on taking right turn will face towards North-East.
- A person facing towards South-West on taking left turn will face towards South-East and on taking right turn towards North-West.
- A person facing towards South-East, on taking left turn will face towards North-East and on taking right turn towards South-West.
- A person facing towards North-East, on taking left turn will face towards North-West and on taking right turn towards South-East.
- In order to determine the distance travelled or the shortest straight distance between the two given points, the Pythagoras formula

Solved Examples:

Example 1:

One evening, two friends Riya and Priya were talking to each other, with their backs towards each other, sitting in a park. If Riya's shadow was exactly to the left of her, then which direction was Priya facing?

Solution:

Riya's shadow fell to her left i.e. towards East (as it was evening). So, Riya was facing "South". As Priya had her back towards Riya, hence, Priya was facing "North". North is the correct answer.

Example 2:

One morning after sunrise, Vikram and Shailesh were standing in a lawn with their backs towards each other. Vikram's shadow fell exactly towards left hand side. Which direction was Shailesh facing?

Solution:

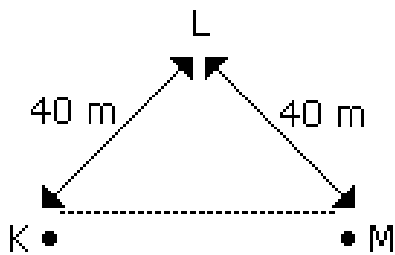
Since Vikram's shadow fell towards left, therefore, Vikram is facing "North". So, Shailesh standing with his back towards Vikram will be facing "South". South is the correct answer.

Example 3:

K is 40 m South-West of L. If M is 40 m South-East of L, then M is in which direction of K?

Solution:

M is in the East of K as shown in the following diagram. East is the correct answer.



Example 4:

A man starting from his home moves 4 km towards East, then he turns right and moves 3 km. Now what will be the minimum distance covered by him to come back to his home?

Solution:

Here the Pythagoras formula is to be adopted.

$$\sqrt{4^2 + 3^2} = \sqrt{25} = 5 \text{ kilometers.}$$



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