

# DIRECTION AND DISTANCE TEST

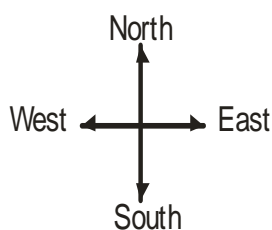
## Contents

### 1.1.1 DIRECTION AND DISTANCE TEST

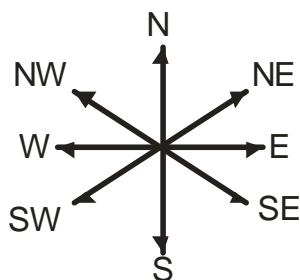
This topic caters to the questions related to direction and distance. The candidate is provided with the details pertaining to direction and distance and then questions are asked in relation to the given details.

#### Tips for Questions Based on Sense of Directions

1. Always try to use the direction planes as the reference for all the questions.



2. Now, as the statement of the question progresses, you should also proceed over this reference plane only.
3. Always mark the start point and end-point different from the other points.
4. Always be attentive while taking right and / or left turns.
5. Mark distances with a scale (if rough diagrams confuse you).
6. To solve this type of questions remember the following diagram:



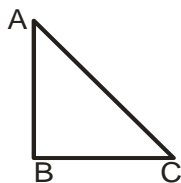
The figure above shows the standard way of depicting the four main directions and the four cardinal directions: North (N), South (S), East (E), West (W) and North East (NE), North West (NW), South West (SW), South East (SE).

7. One should be aware of basic geometric rule, such as Pythagoras Theorem.

Pythagoras Theorem,

$$\Rightarrow AC^2 = AB^2 + BC^2$$

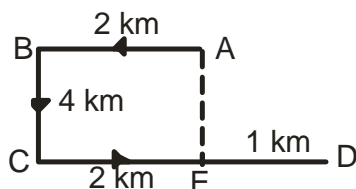

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**Example:** Abhinav walked 2 km west of his house and then south covering 4 km. Finally, he moved 3 km towards east and then again 1 km west. How far is he from his initial position?

- 1) 2 km      2) 4 km      3) 9 km      4) 10 km

**Answer:** Abhinav starts from his house at A, moves 2 km west upto B, then 4 km to the south upto C, 3 km east upto D and finally 1 km west upto E. Thus, his distance from the initial position  $A = AE = BC = 4$  km. Hence, the answer is (2).



**Example:** Dev, Kumar, Nilesh, Ankur and Pintu are standing facing to the North in a playground such as given below:

1. Kumar is at 40 m to the right of Ankur.
2. Dev is 60 m in the south of Kumar.
3. Nilesh is at a distance of 25 m in the west of Ankur.
4. Pintu is at a distance of 90 m in the North of Dev.

If a boy starting from Nilesh, met to Ankur and then to Kumar and after this to Dev and then to Pintu and whole the time he walked in a straight line, then how much total distance did he cover?

- 1) 215 m      2) 155 m      3) 245 m      4) 185 m

**Answer:** Option A

**Explanation:** Required distance = 25 m + 40 m + 60 m + 90 m

Required distance = 215 m

**Example:** one morning after sunrise, Vimal started to walk. During this walking he met Stephen who was coming from opposite direction. Vimal watched that the shadow of Stephen to the right of him (Vimal). To which direction Vimal was facing?

1)east      2)west      3)south      4)Data inadequate

**Answer:** 3) south

**Explanation:** sunrises in the east. So, the shadow of a man will always face towards the west. Since the shadow of Stephen is to right of vimal. Hence, vimal is facing towards south

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