

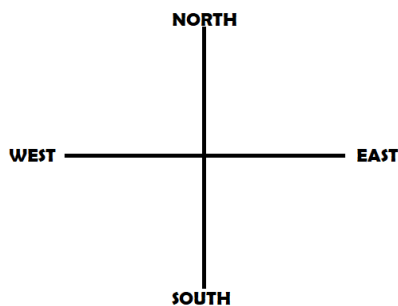
## **DIRECTION AND DISTANCE**

In this chapter, the questions consist of a sort of direction puzzle. A successive follow-up of directions is formulated and the candidate is required to ascertain the final direction on the distance between two points.

This test is meant to judge the candidate's ability to trace and follow correctly and sense the direction correctly.

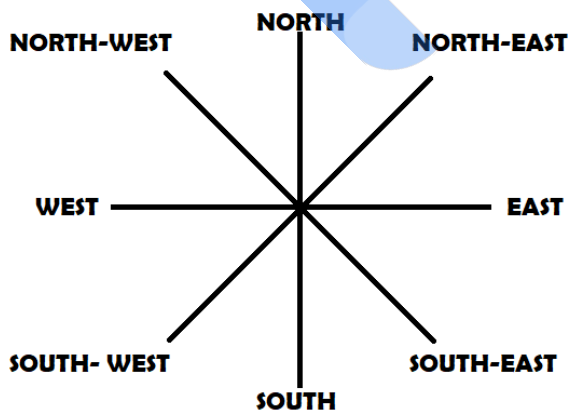
### **THERE ARE FOUR MAIN DIRECTIONS**

North, South, East & West



### **THERE ARE FOUR SUBORDINATE DIRECTIONS:**

North-East (N-E), South - East (S-E), South-West (S-W) & North-West (N-W) those are also called sub-directions and these sub-directions are between prime directions like NE is between North and East, SE is between South & East & so on, ...



### **BASICALLY, THERE ARE FOUR TYPES OF QUESTIONS**

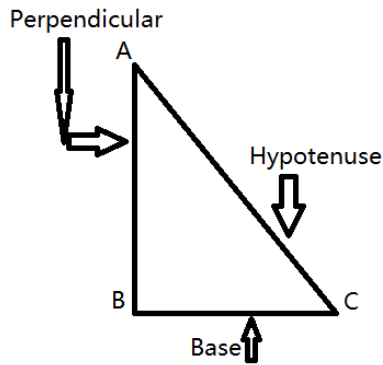
1. Based on directions (from the Initial point or from endpoint).
2. Based on distance (total distances or shortest distances)

3. Based on degrees (clockwise and anticlockwise)

4. Based on shadow (morning or evening time)

### FOR SHORTEST DISTANCE

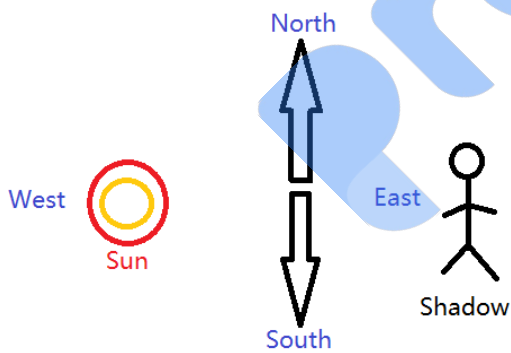
First of all, we have to draw a right angle and then apply the Pythagorean Theorem.



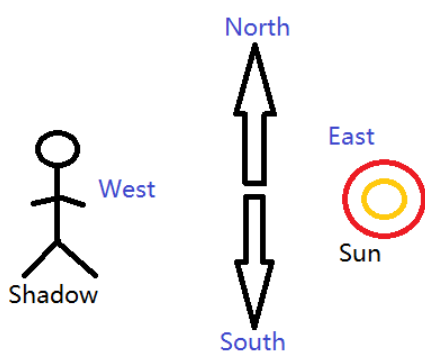
$$AC^2 = AB^2 + BC^2 \text{ (Hypotenuse)}^2 = \text{(Perpendicular)}^2 + \text{(Base)}^2$$

### FOR SHADOW

(A) IN EVENING



(A) IN MORNING



## NOTE

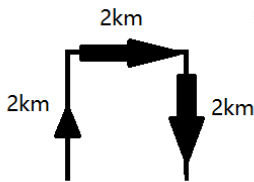
1. If a person is facing towards North then - (1) Clockwise means- Turn your right side (2) Anticlockwise means – Turn your left side
2. If a person is facing towards South, then – (1) Clockwise means- Turn your left side (2) Anticlockwise means – Turn your right side

## Sample Questions

**Q.1. Leeta starts walking from a point that walks 2 km. towards the north, turns towards the right and walks 2 km., turns right again and walks 2 km. Which direction is she facing now?**

- (1) East
- (2) West
- (3) South
- (4) North
- (5) None of these

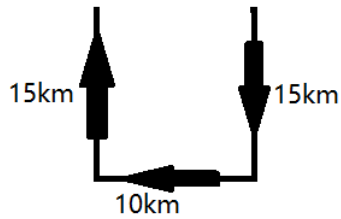
**Ans-(3) South**



**Q.2. Amitabh starts walking in the south direction and travels 15 km then he turns to his right and walks 10 km and then he turns to his right and covers the distance of 15 km. Now how far is he from the starting point?**

- (1) 5 km
- (2) 20 km
- (3) 10 km
- (4) 15 km
- (5) None of these

**Ans- (3) 10 km**

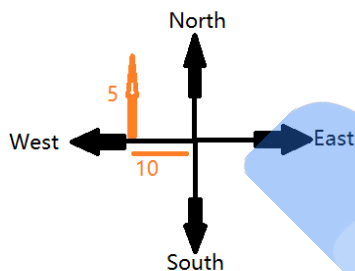


**Q.3. Mani walks 10 steps towards west then turns towards her right and walks 5 steps then she turns towards her back so far in which direction is she facing?**

- (1) East
- (2) West
- (3) North
- (4) South
- (5) None of these

**Ans-(4) South**

Mani starts from point O and moves 10 steps towards the left. Then turns right i.e., moves north steps. Turns back again means she is facing south.

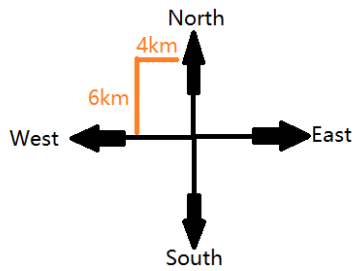


**Q.4. Prakash travelled 6 km towards north then turned towards his left and walked 4 km again he turned towards left and walked 6 km. So how far is he from his starting point?**

- (1) 6 km
- (2) 4 km
- (3) 10 km
- (4) 8 km
- (5) None of these

**Ans-(2)**

Let Prakash start from point O and move 6 km. towards the north. Again, turns left and goes 4 km. towards the west. Again, turns left and reaches at point C in the south.



**Q.5-6. Ramesh walks 2 km towards north then turns towards his right and walks 4 km then again, he turns towards his right and walks 4 km finally he turns towards his right and walks another 4 km.**

**Q.5. Now in which direction Ramesh is facing?**

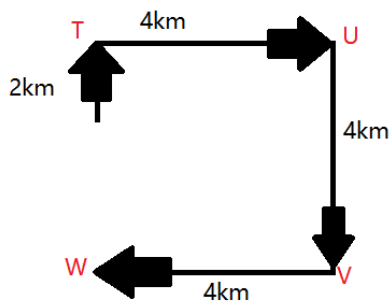
- (1) East
- (2) North
- (3) South
- (4) West
- (5) None of these

**Ans-(4)** As per Diagram Ramesh will be facing towards west.

**Q.6. How far is Ramesh from his starting point?**

- (1) 2 km
- (2) 4 km
- (3) 6 km
- (4) 8 km
- (5) None of these

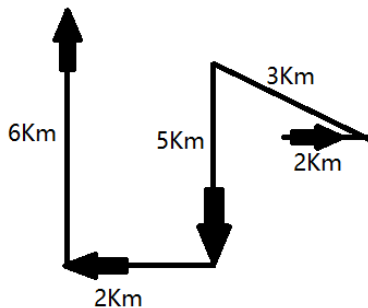
**Ans-(1)** As per Diagram Ramesh will be at 2km distance from Initial Point.



**Q.7.** Robin walks 2 km towards east then he turns towards the north-west and walks 3 km then he turns towards the south and walks 5 km again then he again turns towards the west and walks 2 km. Finally, he turns towards the north and walks 6 km. In which direction he is from the starting point?

- (1) South-west
- (2) South-east
- (3) North-west
- (4) North-east
- (5) None of these

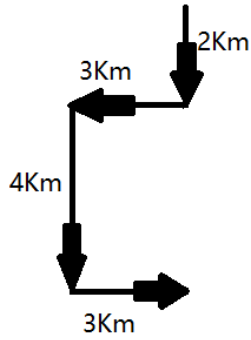
**Ans-(3)**



**Q.8.** Vicky walks 2 km towards south then he turns towards his right and walks 3 km then he turns towards his left and walks 4 km. Finally, he turns towards his left and walks 3 km. In which direction he is from his starting point?

- (1) West
- (2) East
- (3) North
- (4) South
- (5) None of these

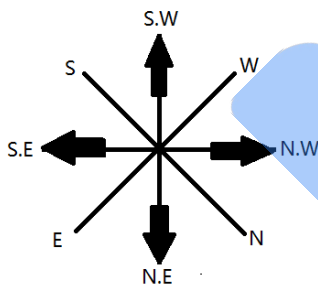
**Ans-(4)**



**Q.9. If south-east becomes north, north-east becomes west and direction changes similarly. What east becomes?**

- (1) South
- (2) South -East
- (3) North - East
- (4) North-West
- (5) None of these

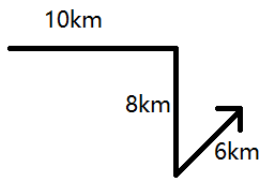
**Ans-(4) North-West**



**Q.10. Atul walks 10 metres in the east then he turns to his right and moves 8 metres then he turns to his left with the angle of 150° and moves 6 metres. Now in which direction is he facing?**

- (1) South-East
- (2) South-West
- (3) South
- (4) North-East
- (5) None of these

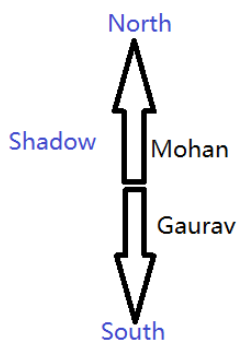
**Ans-(4) North-East**



**Q.11. One moving after Sunrise. Mohan and Gaurav were standing back to each other. Mohan's shadow fell exactly on his left. Toward which direction does Gaurav face?**

- (1) South
- (2) North
- (3) West
- (4) Can't be determined
- (5) None of these

**Ans-(1) South**

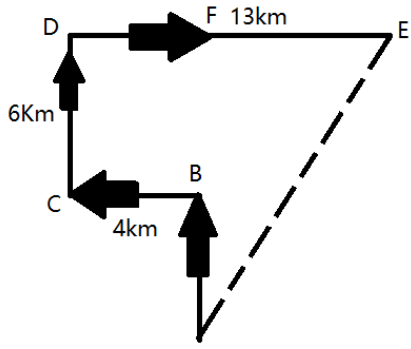


**Q.12. In the evening when Sumant started walking from his house, his shadow was exactly towards his right. He walked 6 km. Then he turned to his left and moved 4 km. Again, he turned to his right and walked 6 km. Then he turned to his right and moved 13 km. How far is he and in which direction from the starting point?**

- (1) 15 km North-East
- (2) 15 km North
- (3) 15 km South-East
- (4) 16 km South
- (5) None of these

**Ans-(1) 15km North-East.**





Prepp