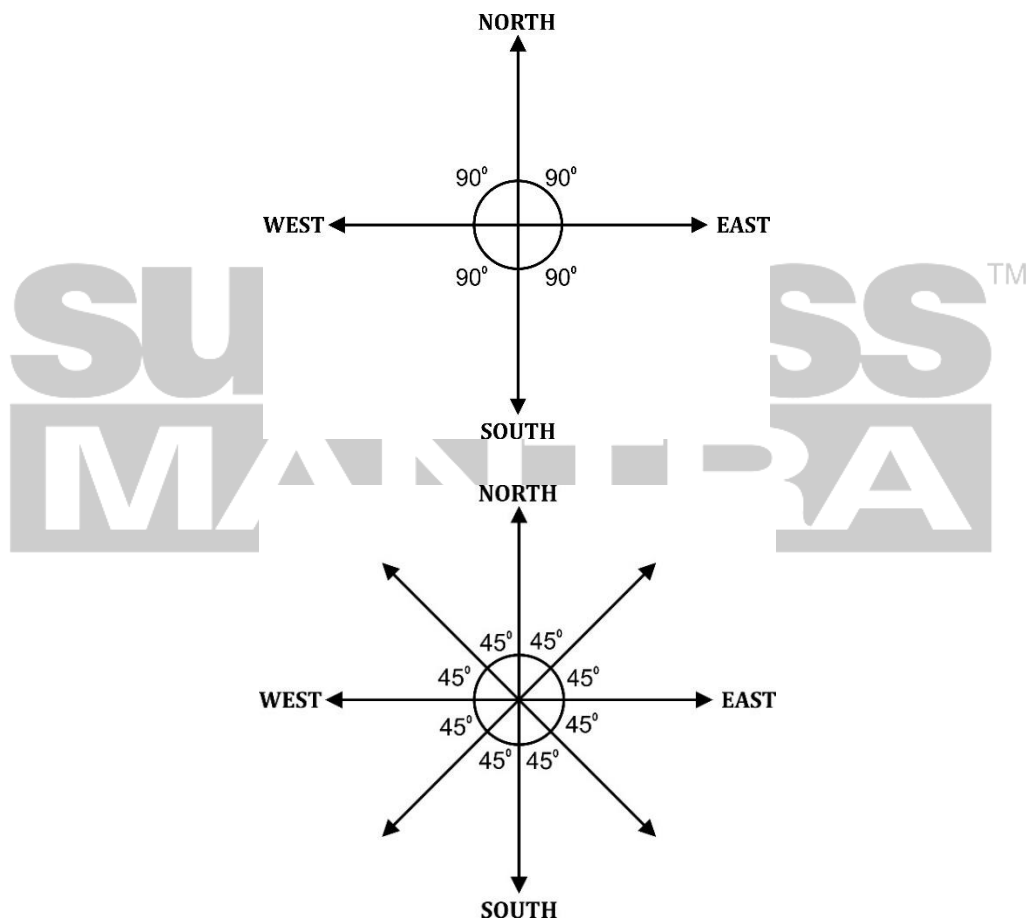
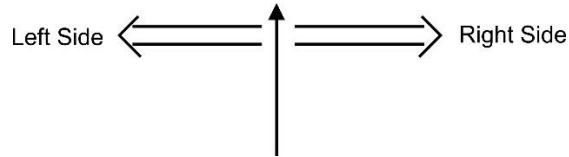


### Angles between Directions

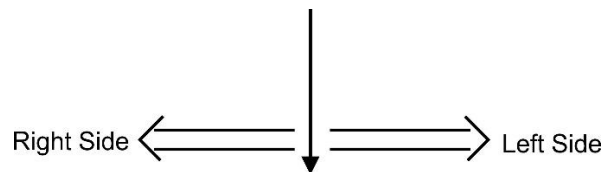


When a person turn 180 in angle, lie will face opposite side to the initial side from which he took turn.  
E.g.: If a Face north, turn 180° to the Right then he will reach south after turning

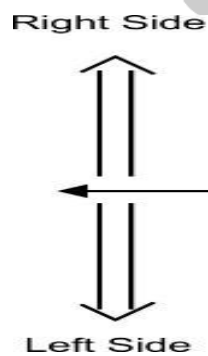
- Clockwise: Turning in the direction of clock Rotation
- Anticlockwise: Turning opposite to the direction of clock relation.
  1. When a person Facing North



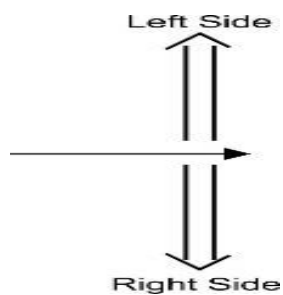
2. When a person facing SOUTH



3. When a person facing West

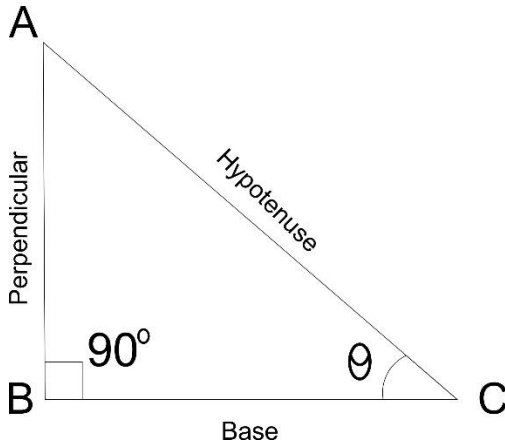


4. When a person facing east



## Pythagoras Theorem (Used in Direction question)

#Right Angled  $\Delta ABC$

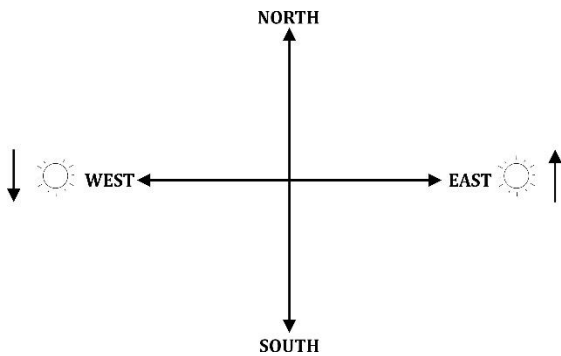


$$AC^2 = AB^2 + BC^2$$

In  $\Delta ABC$ ,  $\angle C$  is given  $\theta$

Then

- Side opposite to given angle ( $\theta$  present case) will be perpendicular
- Side opposite to Right Angle [Angle =  $90^\circ$ ] will be hypotenuse
- Remaining side of Right Angle  $\Delta$ , will be base.



- Since sun Rises in the East  
 $\therefore$  During Sunrise (i.e., in Morning)  $\rightarrow$  shadow is on west direction
- Since sun sets in the west  
 $\therefore$  During Sunset (i.e., in Evening)  $\rightarrow$  shadow in on East direction
- At 12:00 Noon (sun is top of our head i.e., on North)  
 $\therefore$  there will be no shadow at 12 noon. Became shadow is hide below our feet.

Q.1. Ramesh is facing south and turn  $45^\circ$  anticlockwise he turns  $180^\circ$  in anticlockwise direction. Now he turns  $270^\circ$  clockwise which direction facing now?

- a) East                      b) West                      c) North-east                      d) South-west

Option (d) Thus Ramesh is facing South-west Now.

