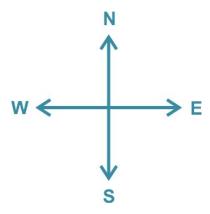
#### **ROTATION CONCEPT**

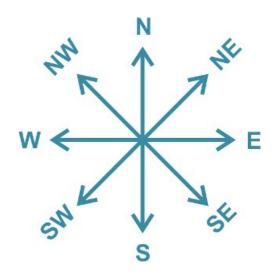
#### **Direction Sense Test**

From Direction Sense Chapter questions is given in exams about direction and select of direction puzzle. The questions is indicating a continuous follow up directions which is need to understands a student, after that relate the final direction between two direction points. These kinds of questions are given to check the direction sense and follow up ability of a student.

Before going to this chapter we have to know our four main directions (North N, South S, East E, West W) and there area which lies in between the direction points.



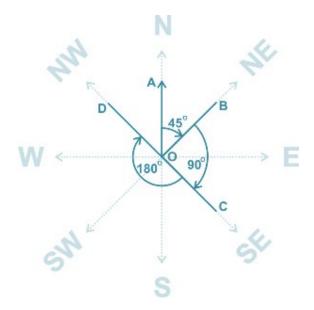
The area which is lies between direction points and that is: ( North East NE, North West NW, South East SE, South West SW ).



Sabir is facing North. He turn 45° in the clockwise direction and then another 90° same direction and then again 180° in the clockwise direction. Which direction he is facing now?

### Solution:

From starting point facing towards north, which is OA then move to  $45^{\circ}$  in clockwise direction that is OB, then turn same direction  $90^{\circ}$  that is OC, then again turn  $180^{\circ}$  same direction, which is North-West and OD.

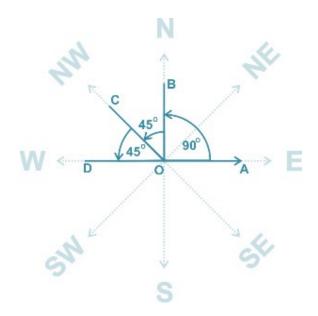


#### Example #2

Ujjal is facing East, He turn 90 degree in the anticlockwise direction and then another 45° same direction, again 45° same direction. Which direction he is facing now?

### Solution:

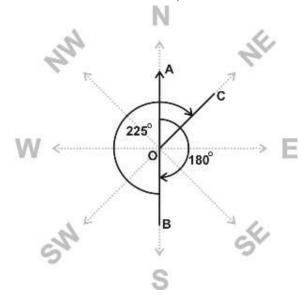
From starting point facing towards East. which is OA, then turn  $90^{\circ}$  in the anticlockwise direction that is OB, then turn same direction  $45^{\circ}$  that is OC, again turn same direction  $45^{\circ}$ , which is OD, So he is facing Now West.



A women is facing North. He turns 180° in the clockwise and the 225° in the clockwise direction, which direction he is facing now?

# **Solution:**

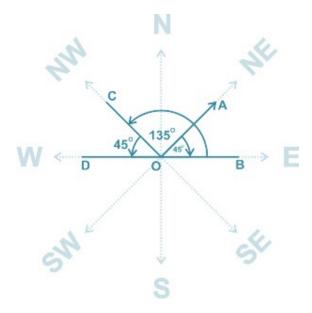
Women facing initially North that is OA, then turn clockwise  $180^{\circ}$  that is OB, and the same direction turn  $225^{\circ}$ , that is OC. He facing now OC that is North-East.



A boy is facing North-East. He turn 45° in the clockwise direction, then 135° in the anticlockwise direction and then another 45° in the anticlockwise direction. Which direction he is facing now?

### Solution:

Boy facing at first north-east then he turn clockwise  $45^{\circ}$  then turn anticlockwise and then  $45^{\circ}$  in the same direction. Now he is facing in the west direction.

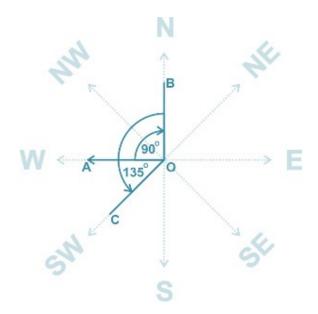


### Example #5

A old man facing west. He is turn 90° in the clockwise direction and then 135° in the anticlockwise wise direction. which direction he is facing now?

## **Solution:**

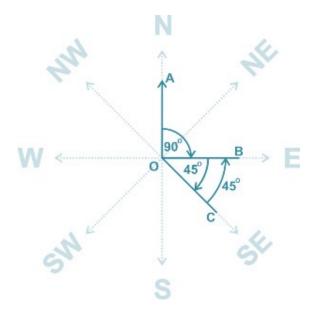
South-West.



A girl facing North. She turns 90° in the clockwise direction and then she turn same direction with 45°, again turn anticlockwise 45°, which direction she is facing now?

# **Solution:**

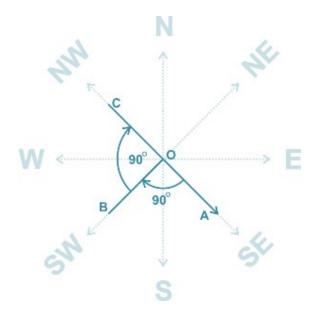
Initially girl standing facing north then she turn  $90^{\circ}$  clockwise the she turn same direction with  $45^{\circ}$  then turn anticlockwise  $45^{\circ}$ , she facing now East.



A boy facing South-East. He turn 90° in the clockwise direction then he turn 90° again clockwise, which direction he is facing now?

# **Solution:**

North-West

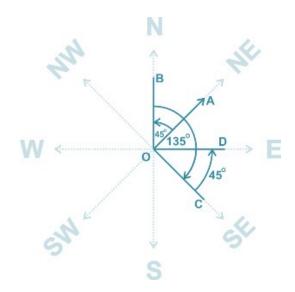


## Example #8

A man facing north-east, turn 45° in the anticlockwise direction and then turn clockwise 135°, then turn 45° anti clockwise, which direction he is facing now?

# **Solution:**

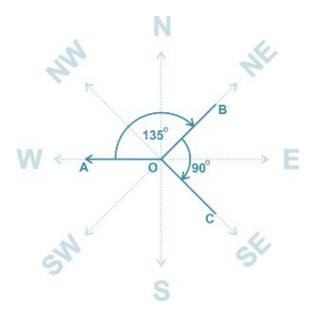
East.



A child is standing in the west direction, he turn 135° clockwise and again turn 90° same direction, which direction he is standing now?

## **Solution:**

South-East.



### Example #10

A women facing North-East. She turns  $45^{\circ}$  in the anticlockwise direction, then she turn  $45^{\circ}$  in the same direction and then  $90^{\circ}$  clockwise direction. Which direction is she facing now?

# **Solution:**

North-East.

