



**SNS College of Technology(Autonomous)  
Coimbatore-35  
Academic Year 2023 – 2024 (Even)**



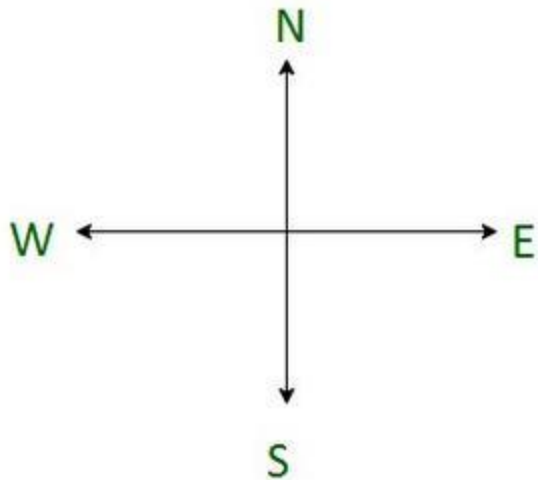
# **UNIT 1 QUANTITATIVE ABILITY III**

**T8: Directions**

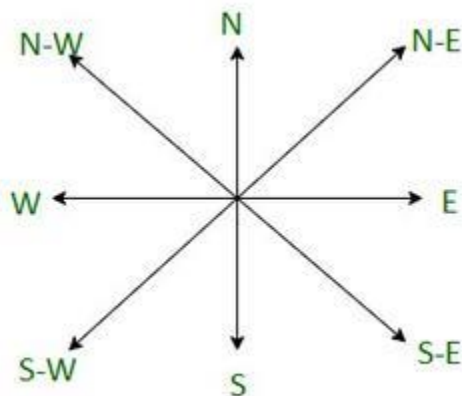
Direction Sense is an important topic of Logical Reasoning.

Basically , there are four major directions – **East (E)** , **West (W)**, **North (N)** and **South (S)**.

Directions are shown in the given figure.



Also, there are four cardinal directions, which are **North-East (N-E)**, **North-West (N-W)**, **South-East (S-E)**, and **South-West (S-W)**.



To solve the direction sense test questions, you need to make a sketch of the data provided and according to that sketch you will easily get to the answer.

### **Some facts about shadow formed due to sunlight :**

In the morning, as the sun rises from the east, so the shadow of any objects formed is in the west direction.

At noon, or 12 pm, when the sun is exactly on top , no shadow will form.

In the evening , as the sun sets in the West , so the shadow of any objects formed is in the East.

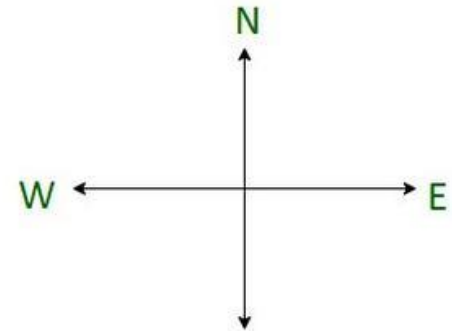
Keeping these directions in mind, there are some types of questions which come into the exams, which we will discuss one by one.

**Q 1. Ram starts from a point A walks 10 km north, then turns right and walks for 7 km, then turns right again and walks for another 10 km. And reaches point B. How far is Ram from the starting point?**

**Solution:**

Now, according to the question, and the directions in mind,

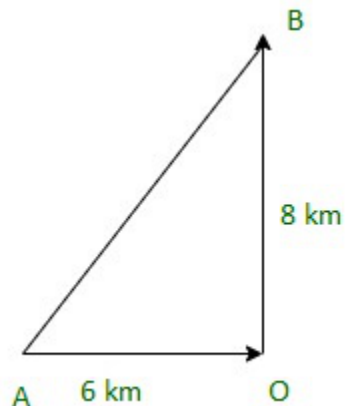
So, from the above image it is clear that ram is 7 km away from the starting point.



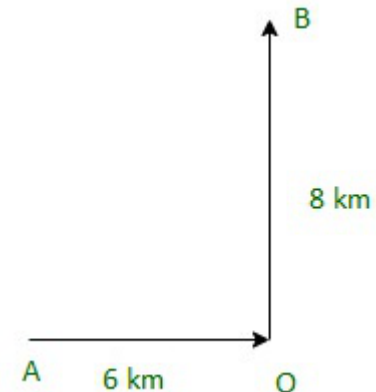
**Sam started walking from point A towards East and walked for 6 km, then he turned to the left and walked for 8 km to reach point B. How far was he from the starting point?**

**Solution:**

Now, according to the question,



$$\begin{aligned} \text{Now, to the Distance between A and B} \\ &= \sqrt{(6^2 + 8^2)} \quad (\text{By Pythagoras' theorem}) \\ &= \sqrt{100} \\ &= 10 \text{ km} \end{aligned}$$



**One morning after sunrise, Mahesh was standing facing a pole. The shadow of the pole fell exactly to his right. To which direction was he facing?**

**Solution:**

The sun rises in the East (E) in the morning.

As the shadow of Mahesh falls to his right.

So he must be facing South.

Hence, the answer is the south

**M is in the East of N, which is in the North of S. If P is in the South of S, then in which direction of M, is P?**

**Solution:**

Let us understand through the diagram , which will clear the question more.

So, P is south-west of M.

