

B 3- High-Level Order & Ranking Quiz



High-Level Order & Ranking Quiz Part- 4



TEFA

Order & Ranking

Tips & Tricks

1. To find the total number of the person sitting in a row or column:
→ **When the rank of a person is given from both sides (i.e. from left and right both) of the row:**

$$(r_1 + r_2) - 1 = \text{Total}$$

Example:

Sachin is 18th from left and 19th from right in a row. Total number of students in a row is,

$$(18 + 19) - 1 = 37 - 1 = 36.$$

→ **When the rank of two persons and number of persons sitting between them is given:**

$(r_1 + r_2) + \text{Number of middle persons.}$

Example:

In a class, Sohan's rank is 9th from the left and Sohail rank is 7th from the right. If 6 students are sitting b/w them then calculate the total number of students in the class.

$$(9 + 7) + 6 = 22.$$

2. To find rank from either left/top or from right/bottom side:

$(\text{Total} + 1) - \text{Given rank} = \text{Required rank.}$

Example:

Priya is 24th from the right in a row of 40 girls. What is her position from the left end?

$$(40 + 1) - 24 = 41 - 24 = 17.$$

3. To find the number of persons sitting between any two persons:

For simple case:

$\text{Total} - (\text{Rank from left} + \text{Rank from Right}).$

Example:

In a class of 120 students, Vivek is 44th from the left and Yash is 46th from the right. Find the total number of students sitting between them?
 $120 - (44 + 46) = 120 - 90 = 30$.

For overlapping case:

(Rank from left + Rank from right) – (Total + 2).

Example:

In a class of 90 students, Ram is 67th from the top and Ramesh is 57th from the bottom. Number of students sitting between Ram and Ramesh is $(67 + 57) = 124 > 90$, so it is a case of overlapping. Thus, the total number of students sitting between them is $124 - (90+2) = 32$.

Note: When (Left + Right) position > The total number of persons, it is called the case of overlapping.

4. To find the number of maximum and minimum persons in a row or column:

When (smaller rank – number of middle persons) ≥ 2 then

Simple case will give total number of maximum persons, $(r1 + r2) + \text{Number of middle persons}$.

Example:

In a class, Vivek rank is 9th from the left and Sachin rank is 8th from the right. If 6 students are sitting between them then calculate the maximum number of students in the class.

$(8 - 6) = 2 \geq 2$. So, the maximum number of students in the class is $(9 + 8) + 6 = 23$.

Overlapping case will give the total number of minimum persons, $(r1 + r2) - (\text{Number of middle persons} + 2)$.

Example:

In a class of 100 students, Virat is 67th from the left and Rohit is 57th from the right and the number of students sitting between them is 32. Calculate the number of minimum persons in the row.

$(67 + 57) = 124 > 100$. So, it is a case of overlapping. Thus, the minimum number of students in the row is $(67 + 57) - (32 + 2) = 90$.

**When (smaller rank – number of middle) < 2 then
Only simple case is valid, so the total number of
maximum/minimum persons is
 $(r1 + r2) + \text{Number of middle persons}$.**

Example:

In a class, Sohan's rank is 9th from the left and Sohail rank is 7th from the right. If 6 students are sitting between them then calculate the minimum number of students in the class.

$(7 - 6) = 1 < 2$. So, the minimum number of students in the class is $(9 + 7) + 6 = 22$.

