RANKING ARRANGEMENT

Type 1 :

Total number of people = total number of people before or after the given person in a row + position of that same person from the different side.

Ex: In a row of people, the position of person X from the left-hand side is 23rd and there are 5 people after X in a row. So, how many total people are there in the row?

Here, the total number of people in the row = number of people after X + position of X from the left side.

Thus, total number of person = 23 + 5 = 28

TYPE - 2

Total number of people = (sum of positions of similar person from both sides i.e. right and left side) – 1

Ex: In a row of people, the position of X on the left-hand side of the row is 25th while the position of X from the right-hand side of the row is 32nd. How many total numbers of people are there in the row?

Total number of students = (Position of X from right + position of X from left) – 1

= (25 + 32) – 1

= 56

TYPE - 3

When the position of two people are given from either end and we know the total number of people than two cases are formed when trying to determine the total number of people between these positions.

1. When there is no overlapping, the sum of the positions of the two people from either end < total number of people

2. If there is overlapping, the sum of the positions of the two people from either end > total number of people

So, the number of candidates between two different people = total number of students – the sum of positions of two different people from either end

Ex: There are 52 people in a row. X is at the 13th position from the left side of the row while Y is at 18th position form right side of the row. Find the total number of people between X and Y.

So, sum of positions between X and Y either ends = 13 + 18 = 31 < total number of people

Thus, no. of people between X and Y = total no of candidates – (position of X from a left + position of Y from right)

=> 52 – (13 + 18) = 21

In a row all the persons are facing north, Rahul is 33rd from the left end and in the right side of Rahul, there are only 16 persons. Find out total number of person in this queue?

a) 49 b) 50 c) 51 d) None of these

Answer : A) 49

The total number of person is = Position of Rahul from the one of the ends + Number of person are there in the opposite direction of Rahul = 33 + 16 = 49

Hence, the total number of person is 49.

Suppose in a row there are 16 people, position of X from the left side is 4th. Find the total number of people after X in the row.

A. 14 B. 13 C. 12 D. 11

Answer: C. 12

total number of person = Sum after right and before left

16 = 4+X

X = 12

Karim ranks 15th from the top in a class of 49 students. What is his rank from the bottom?

Total = Left + Right - 1

Karim ranks 15^{th} from the top in a class of 49 students.

Karim's rank from the bottom = 49 − 15 + 1

= 50 − 15

= 35

So, his rank from the bottom is 35^{th}.

Hence, '35' is the correct answer.

In a row of students, Vijay is 11th from the left end, and Hemant is 17th from the right end. If both of them interchange their positions, Vijay becomes 15th from the left end. How many students is/are sitting between Hemant and Vijay?

The logic followed is:

The position of Vijay from the left end is 11.

The position of Hemant from the right end is 17.

After interchanging,

Vijay becomes 15^{th} from the left end.

This means that Vijay's position from the right end will same as the position of Hemant from the right end.

So, Vijay's position from the right end will be 17^{th}.

$R_1 = 17$

$R_2 = 15$

$T = 17 + 15 - 1$

$T = 31.$

Now, in a line of 31 students, Vijay is 11^{th} from the left end and Hemant from the right end is the $17^{th.}$

So, the number of persons sitting between them will be:

$\rightarrow 31 - (11 + 17)$

$\rightarrow 31 - 28$

$\rightarrow 3$

In a row of boys, Karun is 5th from the left and Panth is 6th from the right. When they exchange their position, Karun becomes 13th from the left. What is the new position of Panth from the right.

=> The number of boys in the row = Karun position from the left + Karun position from the right - 1

=> The number of boys in the row = 13 + 6 − 1 = 19 - 1 = 18

Position of Panth from the right:

=> The number of boys in the row = Panth position from the left + Panth position from the right - 1

=> Panth position from the right = The number of boys in the row - Panth position from the left + 1

=> Panth position from the right = 18 - 5 + 1 = 19 - 5 = 14

Hence, total **"14"** students in the row.

If you are 13th from both sides in a row, then how many people are standing in that row?

Formula used: $T = (P_1 + P_2 - 1)$

Where T = Total number of person is the line.

P_1 = Position of the person from the left end.

P_2 = Position of the same person from the right end.

Given: Our position from both ends is 13.

So, $P_1 = P_2 = 13$.

Therefore, total number of peoples will be:

$\Rightarrow T = (13 + 13 - 1)$

$\Rightarrow T = 26 - 1$

$\Rightarrow T = 25$.

As the obtained number of students is 25.

Hence, the correct answer is **"25".**

ORDERING

There is a group of 6 people: A,B,C,D,E and F (not necessarily in the same order). D is taller than A and E. F is taller than B and C. E is taller than F. A is taller than F. which of the following can be shortest?

- D is taller than A and E.
- A is taller than F.
- E is taller than F.

Case 1: D > A > E > F

Case 2: D > E > A > F

- F is taller than B and C.

Case 1: D > A > E > F > B/C > C/B

Case 2: D > E > A > F > B/C > C/B

- Either B or C is the shortest person.

Hence, **"option 2"** is the correct answer.

Five products A,B,C,D and E are price differently in a general store. A is cheaper than C but costlier than B. E is costlier than C but cheaper than D. which of the product is the cheapest?

According to given information,

- Arranging products from the costliest to the cheape

• 'A' is cheaper than 'C' but costlier than 'B'.

So, C > A > B

• 'E' is costlier than 'C' but cheaper than 'D'.

So, D > E > C

♦ Combining both sequences: D > E > C > A > B

Thus, clearly B is the cheapest.

Hence, **'option 4'** is the correct answer.

Six classmates, T,U,V,W,X and Y each scored different marks in an entrance examination. V scored more than only T and X. W scores less than only U. X did not score the least. The one who scored the third highest marks, scores 91 marks. X scored 72 marks.
Which of the following could possibly be V's score?

a) 104 b) 80 c) 97 d) 71

According to the given information-

1. V scored more than only T and X. W scored less than only U.

Case I: U > W > Y > V > T > X

Case II: U > W > Y > V > X > T

2. X did not score the least. So, Case I is eliminated.

The one who scored the third highest marks, scored 91 marks. X scored 72 marks.

Final arrangement will be-

U > W > Y(91) > V > X(72) > T

Thus, V's score should be more than 72 and less than 91.

Hence, **'option 2'** is the correct answer.

Six persons A,B,C,D,E and F were engaged in a group discussion. A spoke immediately before D but immediately after B. B spoke immediately after F. If C spoke immediately after D but before E, then who among the following started the discussion?

No. of persons = 6

Name of persons: A, B, C, D, E and F

Arranging persons by their speaking order-

1. A spoke immediately before D but immediately after B. B spoke immediately after F.

F ► B ► A ► D

2. C spoke immediately after D but before E.

F ► B ► A ► D ► C ► E

Thus, F started the discussion.

Hence, **'option 1'** is the correct answer.

Directions (1-3): Study the following information and answer the given questions:
There are six students-P, Q, R, S, T, and U in a class. Each one has different number of candies. S have less number of candies than only two students. P have more candies than R but less than U. R does not have least number of candies. S does not have odd number of candies. U has less candies than Q. The one who has third-lowest number of candies have 21 candies.

Q > U > S > P (21) > R > T

1. Who among the following have highest number of candies?

a) Q b) U c) R d) S

Ans: a) Q

2. If U have 48 candies, then what is the possible number of candies S have?

a) 45 b) 19 c) 38 d) 25

Ans: c) 38

3. Who among the following have third lowest number of candies?

a) U b) R c) S d) P

Ans: d) P

Q > U > S > P (21) > R > T

Among J, K, L, M and N, each one of them is of different heights, K is taller than only one person. M is shorter than only L. M is taller than J and N (both). Who among them is the third tallest?
a) J b) K c) L d) N e) Either (a) or (d)

Ans. (e)

L> M > J/N > K > J/N


THANK
YOU !