

Concept Of Recursion {Codeloper}

Recursion is basically a concept to divide larger problems into smaller subproblems and find a solution.

*So that we can simplify the complex problem.

U just need to trust recursion that it will return u the ans of smaller subproblem (as u trust ur best friend)

No need to think much about how the recursion call stack is working from top to bottom while solving .Because if you will think how it's working u are going to get confused.

** So the most important thing about recursion is that u need to trust it that it will give soln of smaller subproblem **

40	55	63	17	22	68	89	97	89
0	1	2	3	4	5	6	7	8

<- Array Indices

Three important thing on which recursion is based

1] **Base Case** : It means recursion needs to end somewhere bcz if it does not we will not get output. So base case takes care of the thing that at a particular point recursion should end.

2] **To write code for the logic**

3] **Recursion call**

If you perform these 3 operations in the correct way then you can trust your recursion function to return answers of smaller subproblems.

Q1] sum of elements of array using recursion

Q2] sum of even numbers in array using recursion

Q3] first index of repeated value in an array

[6,4,3,4,5] then the first index of repeated character is 1 (i.e 4).

Q4] Height of Tree using recursion.