## Concept Of Recursion (Codeloper)

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

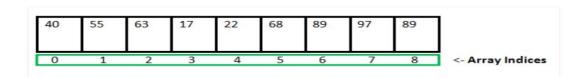
\*So that we can simplify the complex problem.

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 \*\*

bas ekbar trust karke dekho samajh jaoge poora khel trust ka hai :)



## 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 if some condition given
- 3] To call recursion.

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.