

## Linear Searching Algorithm.

★ Searching :- It is a process of finding a given value position in a list of values.

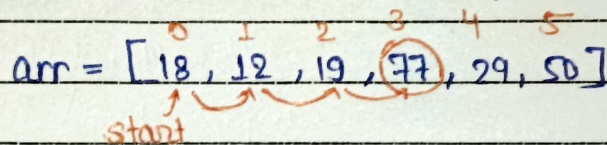
★ Linear Search :-

- It is also called as Sequential Search.
- It is basic & simple search algorithm.
- In sequential search, we compare the target value with all the other elements given in list.

eg:-

arr = [18, 12, 19, 77, 29, 50]

start



target = 77

Here target value is compared with all element in array in sequential / linear way.

★ Time Complexity :-

★ Best Case :-  $O(1) \rightarrow$  constant

$\Rightarrow$  How many checks will loop make in best case i.e. the element will be found at 0<sup>th</sup> index. i.e. only one comparison will be made for best case.

★ Worst Case :-  $O(n)$

$\Rightarrow$  Worst case, here it will go through every element & then it says element is not found.