

05 - SEARCHING

05. LINEAR SEARCH ALGORITHM.

- basic and simple search algorithm
- In this, we compare the target value with all other elements given in list.

target = 77

arr = [18, 12, 19, 77, 20] (unsorted array)

→ → → → →

* Time complexity

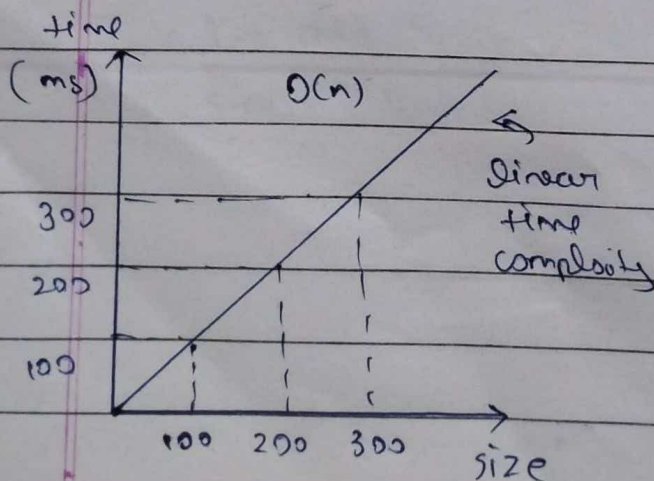
① Best case: $O(1) \rightarrow$ constant

- The element is found at the 0th index i.e. only one comparison will be made

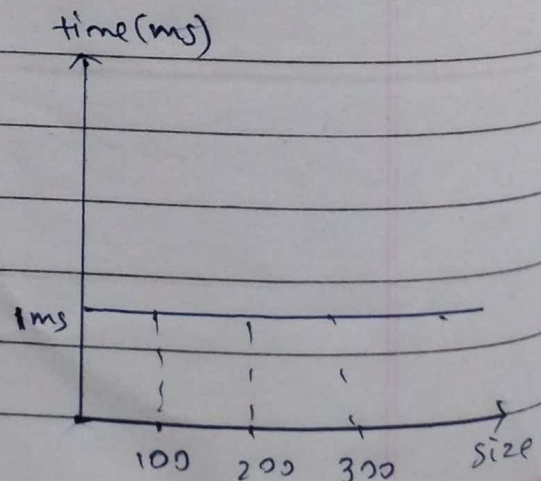
② Worst case: $O(n)$

- Here, it will go through every element and then it says the element not found

Size of array	No. of comparison	time (ms)
100	100	100 ms
200	200	200 ms
n	n	<u>n ms</u>



WORST CASE



BEST CASE