

【土】

It is a process of finding a desired element in a set (or list) of items.

⇒ If no value found, it return -1.

20, 9 exists at index 2.



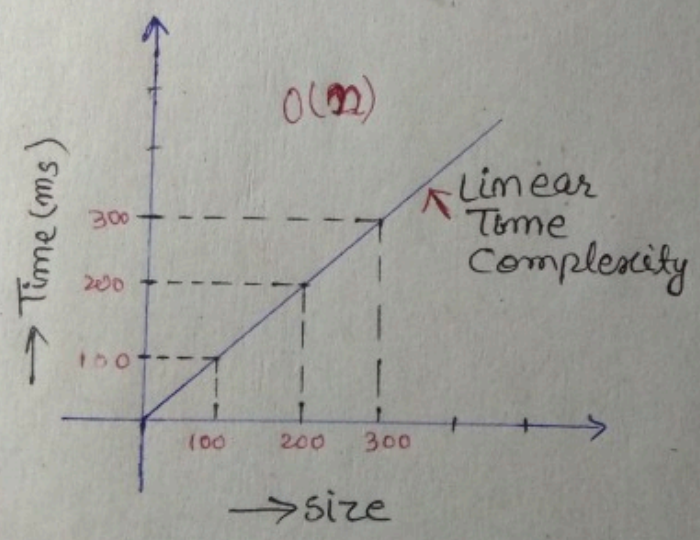
# \* Time Complexity for Linear Search

Best Case :  $O(1)$  // constant

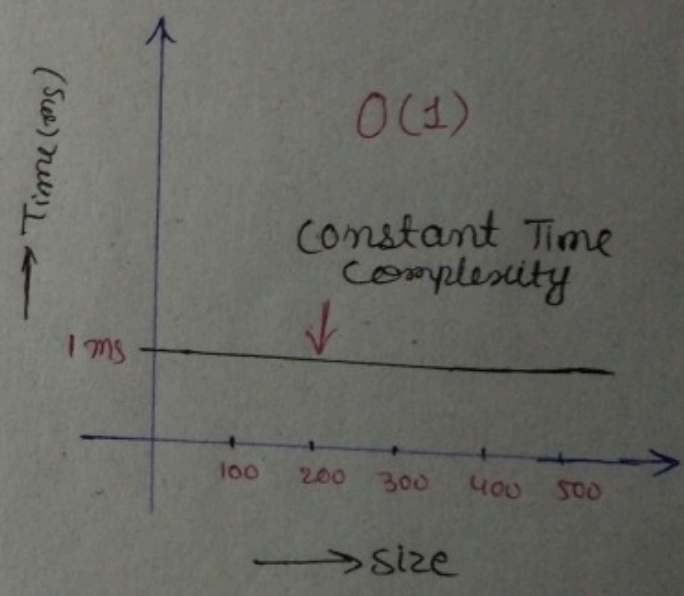
>>> In linear search, Best case occurs when the target (desired) value present at  $0^{th}$  index ( $1^{st}$  location) means, for best case  $\rightarrow$  only one comparison will be made.

Worst Case :  $O(n)$  //  $n$  = size of array

>>> worst case happens when the target (desired) element is compared with all the elements of array one by one and it says element not found. i.e, we have done  $n$  comparisons (Here,  $n \rightarrow$  size of array)



Worst case



Best case