* Search :- Searching algorithm is one of the important concept for the programmers.

i) Linear Search.

arr = [5, 3, 2, 1, 7, 9, 8]

We use loop to keep searching each element and the moment we get the target element we return the same.

→ Time complexity
O(n) worst case (end of the arr).
O(n) average case (anywhere)
O(1) Best case. (1st itself).

ii) Binary Search :- Binary search only works when the input array is sorted. It was introduced to improve the time complexity of linear search algorithm.

In binary search we get the middle index first. Then check if middle value is > or < the target. If it is greater the we ignore the left part as the array is sorted. And then in right half we again or find the middle element.

→ The ~~comptex~~ time complexity of binary search.

Best case O(1)
Worst case O(log n).