# **Linear Search**

* Difficulty Level : [Basic](https://www.geeksforgeeks.org/basic/)
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Given an array **arr[]** of **N** elements, the task is to write a function to search a given element **x** in **arr[]**.

**Examples :**

***Input:*** *arr[] = {10, 20, 80, 30, 60, 50,110, 100, 130, 170}, x = 110;*

***Output:*** *6*

***Explanation:*** *Element x is present at index 6*

***Input:*** *arr[] = {10, 20, 80, 30, 60, 50,110, 100, 130, 170}, x = 175;*

***Output:*** *-1*

***Explanation:*** *Element x is not present in arr[].*

[Recommended PracticeSearching a numberTry It!](https://practice.geeksforgeeks.org/problems/searching-a-number0324/1/)

**Approach:**

*Iterate from* ***0*** *to* ***N-1*** *and compare the value of every index with* ***key*** *if they match return index, if the loop terminates then return* ***-1****.*

Follow the below steps to Implement the above approach:

* Start from the leftmost element of **arr[]** and one by one compare **x** with each element of **arr[]**
* If **x** matches with an element, return the index.
* If **x** doesn’t match with any of the elements, return **-1**.