LINEAR SEARCH

```
#include<iostream>
using namespace std;

int linearSearch(int arr[], int size, int target){
    for (int i=0; i<size; i++){
    if (arr[i]==target){
        return i;
        }
    }
return -1;

}

int main(){
    int arr[] = {5, 3, 8, 4, 2};
    int size = sizeof(arr)/sizeof(arr[0]);
    int target;

    cout << "Enter a number to search: ";
    cin >> target;

    int result = linearSearch(arr, size, target);
    if (result !=-1){
        cout << "Element found at index: " << result << endl;
    } else {
        cout << "Element not found." << endl;
    }

    return 0;
}
```

BINARY SEARCH

```
#include<iostream>
using namespace std;

int binarySearch(int arr[], int size, int target){
    int left = 0;
    int right = size-1;

    while (left<=right){
        int mid = left + (right - left)/2;

        if(arr[mid]==target){
            return mid;
        }
    if (arr[mid]<target){
        left = mid + 1;
    }else{
        right = mid -1;
        }
    }
    return -1;
}

int main(){
    int arr[] = {2,3,4,5,8};
    int size = sizeof(arr)/sizeof(arr[0]);
    int target;

    cout << "Enter a number to search: ";
    cin >> target;

    int result = binarySearch(arr, size, target);
    if (result !=-1){
        cout << "Element found at index: " << result << endl;
    } else {
        cout << "Element not found." << endl;
    }

    return 0;
}
```