gist (https://gist.github.com/)

Jalanorian / **gist:143907e4d74ed84ad166**
Created just now

gistfile1.cpp   **C++**

```cpp
#include <iostream>
#include <time.h>
#include <algorithm>
#include <math.h>

int LinearSearch(int target, int search_array[], int array_length) {
        // Initializes as "not found"
        int index = -1;
        for (int i = 0; i < array_length; i++) {
                if (search_array[i] == target) {
                        // Store each variable
                        index = i;
                        // Break out if found
                        break;
                }
        }
        return index;
}

int BinarySearch(int binary_array[], int target, int left, int right) {

        int mid = floor((left + right)/ 2);

        // BASE-CASE #1: Found
        if (binary_array[mid] == target) {
                return (mid);
        }
        // BASE-CASE #2: Not found and at end of list
        else if (right - left < 2)
        {
                if (binary_array[mid + 1] == target) {
                        return (mid + 1);
                } else {
                        return -1;
                }

        } // RECURSIVE-CASE
        else if (binary_array[mid] > target) {
                return BinarySearch(binary_array, target, left, mid - 1);
        } // RECURSIVE-CASE
        else {
                return BinarySearch(binary_array, target, mid + 1, right);

        }
    }
```