CS23331-Design and Analysis of Algorithms-2023 Batch-CSE

Quiz navigation

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Started on	Friday, 25 October 2024, 2:34 PM
State	Finished
Completed on	Friday, 25 October 2024, 2:40 PM
Time taken	6 mins 18 secs
Marks	1.00/1.00
Grade	**4.00** out of 4.00 (**100**%)

Question **1**

Correct

Mark 1.00 out of 1.00

Flag question

Given an array A of sorted integers and another non negative integer k, find if there exists 2 indices i and j such that A[j] - A[i] = k, i != j.

Input Format:

First Line n - Number of elements in an array

Next n Lines - N elements in the array

k - Non - Negative Integer

Output Format:

1 - If pair exists

0 - If no pair exists

Explanation for the given Sample Testcase:

YES as 5 - 1 = 4

So Return 1.

For example:

Input	Result
3 1 3 5 4	1

Answer: (penalty regime: 0 %)

```
#include <stdio.h>
int main(){
    int n;
    scanf("%d",&n);
    int a[n];
    for(int i=0;i<n;i++)
        scanf("%d",&a[i]);
    int k;
    scanf("%d",&k);
    int c=0;
    for(int i=0;i<n;i++){
        for(int j=i+1;j<n;j++){
            if(a[j]-a[i]==k)
                c++;
        }
    }
    printf("%d",c>0?1:0);
}
```

	Input	Expected	Got	
✔	3 1 3 5 4	1	1	✔
✔	10 1 4 6 8 12 14 15 20 21 25 1	1	1	✔
✔	10 1 2 3 5 11 14 16 24 28 29 0	0	0	✔
✔	10 0 2 3 7 13 14 15 20 24 25 10	1	1	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Finish review

← 4-Print Intersection of 2 sorted arrays-O(m+n)Time Complexity,O(1) Space Complexity

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6-Pair with Difference -O(n) Time Complexity,O(1) Space Complexity →