Dashbo... / My cour... / CS23331-DAA-2023-... / Competitive Program... / 5-Pair with Difference-O(n^2)Time Complexity,O(1) Space Com...

Started on	Monday, 18 November 2024, 7:44 PM
State	Finished
Completed on	Monday, 18 November 2024, 7:44 PM
Time taken	48 secs
Marks	1.00/1.00
Grade	4.00 out of 4.00 (100 %)

```
Question 1
Correct
Mark 1.00 out of 1.00
```

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

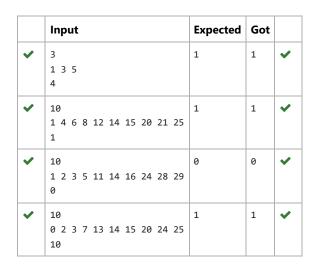
So Return 1.

For example:

Input	Result
3	1
1 3 5	
4	

Answer: (penalty regime: 0 %)

```
#include <stdio.h>
 1
 2
 3 ▼
    int main() {
         int n, k;
scanf("%d", &n);
 4
 5
 6
 7
         int A[n];
 8 ,
         for (int i = 0; i < n; i++) {
             scanf("%d", &A[i]);
 9
10
         }
11
12
         scanf("%d", &k);
13
14
         int i = 0, j = 1;
15
         while (j < n) {
             int diff = A[j] - A[i];
16
             if (diff == k && i != j) {
17
                  printf("1\n");
18
19
                  return 0;
20 •
             } else if (diff < k) {</pre>
21
                  j++;
             } else {
22 •
23
                  i++;
24 •
                  if (i == j) {
25
                      j++;
26
                  }
27
             }
28
29
30
         printf("0\n");
31
         return 0;
32
33
```



Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

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

Jump to...

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