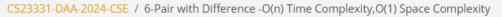




Dashboard My courses





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

Started on	Wednesday, 8 October 2025, 9:37 AM
State	Finished
Completed on	Wednesday, 8 October 2025, 9:38 AM
Time taken	1 min 3 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:

If nair aviete

i - ii paii chists

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 %)

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

```
27 printf("0\n");
28 return 0;
29 }
```

	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

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