## Dashbo... / My cour... / CS23331-DAA-2023... / Competitive Programm... / 6-Pair with Difference -O(n) Time Complexity,O(1) Space Comp...

Status	Finished
Started	Saturday, 19 April 2025, 9:47 AM
Completed	Saturday, 19 April 2025, 9:48 AM
Duration	1 min
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>
 2 v int main(){
 3
         int n,k,c=0;
         scanf("%d",&n);
 4
 5
         int a[n];
 6
         for(int i=0;i<n;i++){</pre>
             scanf("%d",&a[i]);
 8
         }
 9
         scanf("%d",&k);
         for(int i=n-1;i>=0;i--){
10
11 ,
             for(int j=0;j<n;j++){</pre>
                 if(a[i]-a[j]==k && k!=0){
12 •
13
                 c=1;
14
                 break;
15
             }
16
             }
17
         printf("%d",c);
18
19
```

	Input	Expected	Got	
~	3 1 3 5 4	1	1	<b>~</b>
~	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	~

	Input	Expected	Got	
~	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.

■ 5-Pair with Difference-O(n^2)Time Complexity,O(1) Space Complexity

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