

Started on	Saturday, 9 November 2024, 11:20 AM
State	Finished
Completed on	Saturday, 9 November 2024, 11:31 AM
Time taken	11 mins 22 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  $A[j] - A[i] = k, i \neq j$ .

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 %)

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

	Input	Expected	Got	
✓	3 1 3 5 4	1	1	✓
✓	10 1 4 6 8 12 14 15 20 21 25 1	1	1	✓

	Input	Expected	Got	
✓	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.

[◀ 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 ▶](#)