

**Started on** Thursday, 30 October 2025, 8:42 AM

**State** Finished

**Completed on** Thursday, 30 October 2025, 9:14 AM

**Time taken** 31 mins 55 secs

**Marks** 1.00/1.00

**Grade** 10.00 out of 10.00 (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  int main(){
3      int n;
4      scanf("%d",&n);
5      int arr[n];
6      for(int i=0;i<n;i++){
7          scanf("%d",&arr[i]);
8      }
9      int x;
10     scanf("%d",&x);
11     int i=0, j=1;
12     int found=0;
13     while(i<n && j<n){
14         if(i != j && (arr[j]-arr[i]==x)){
15             found=1;
16             break;
17         }
18         else if(arr[j]-arr[i]<x){
19             j++;
20         }
21         else{
22             i++;
23         }
24     }
25     printf("%d",found);
26     return 0;
27 }

```

	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.