

VISAANTH M 2024-IT**V2****Started on** Wednesday, 15 October 2025, 2:00 PM**State** Finished**Completed on** Wednesday, 15 October 2025, 2:16 PM**Time taken** 15 mins 33 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
1 3 5	
4	

**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 k;
10    scanf("%d", &k);
11    int i=0,j=1;
12    while(j<n && i<n){
13        int diff = arr[j]-arr[i];
14        if(diff == k && i!=j){
15            printf("1\n");
16            return 0;
17        }
18        else if(diff < k){
19            j++;
20        }
21        else{
22            i++;
23            if(i==j) j++;
24        }
25    }
26    printf("0\n");
27    return 0;
28 }
```

	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.

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