



THIVYASRI T 2024-CSE

T2

**Started on** Thursday, 20 November 2025, 9:15 PM**State** Finished**Completed on** Thursday, 20 November 2025, 9:21 PM**Time taken** 6 mins 7 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
3 int main() {
4     int n, k;
5     scanf("%d", &n);
6
7     int a[n];
8     for (int i = 0; i < n; i++)
9         scanf("%d", &a[i]);
10
11    scanf("%d", &k);
12
13    int i = 0, j = 1;
14
15    while (i < n && j < n) {
16        int diff = a[j] - a[i];
17
18        if (i != j && diff == k) {
19            printf("1");
20            return 0;
21        }
22        else if (diff < k)
23            j++;
24        else
25            i++;
26
27        if (i == j)
28            j++;
29    }
30
31    printf("0");
32    return 0;
33}
34

```

	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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