

KARTHIK J 2024-IT ▾**K2****Started on** Wednesday, 8 October 2025, 2:10 PM**State** Finished**Completed on** Wednesday, 8 October 2025, 2:14 PM**Time taken** 3 mins 37 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 hasPairWithDifference(int arr[], int n, int k) {
4     int i = 0, j = 1;
5
6     while (i < n && j < n) {
7         int diff = arr[j] - arr[i];
8
9         if (diff == k && i != j)
10             return 1;
11         else if (diff < k)
12             j++;
13         else
14             i++;
15     }
16
17     return 0;
18 }
19
20 int main() {
21     int n, k;
22     scanf("%d", &n);
23
24     int arr[n];
25     for (int i = 0; i < n; i++)
26         scanf("%d", &arr[i]);
27
28     scanf("%d", &k);
29
30     int result = hasPairWithDifference(arr, n, k);
31     printf("%d\n", result);
32 }
```

```
33 }     return 0;  
34 }  
35 }
```

	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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