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SIVA S 2024-CSE ▾

**S2****Started on** Wednesday, 8 October 2025, 4:08 PM**State** Finished**Completed on** Wednesday, 8 October 2025, 4:08 PM**Time taken** 55 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 A[n];
7 |
8 |     for (int i = 0; i < n; i++)
9 |         scanf("%d", &A[i]);
10 |
11 |     int k;
12 |     scanf("%d", &k);
13 |
14 |     int i = 0, j = 1;
15 |
16 |     while (i < n && j < n) {
17 |         int diff = A[j] - A[i];
18 |
19 |         if (diff == k && i != j) {
20 |             printf("1\n");
21 |             return 0;
22 |         } else if (diff < k) {
23 |             j++;
24 |         } else {
25 |             i++;
26 |             if (i == j) j++;
27 |         }
28 |     }
29 |
30 |     printf("0\n");
31 |     return 0;
32 | }
33 |
```

	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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