

 **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
1 3 5	
4	

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}
```

	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.

[Back to Course](#)