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**Started on** Sunday, 16 November 2025, 8:46 PM

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**State** Finished

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**Completed on** Sunday, 16 November 2025, 8:46 PM

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**Time taken** 47 secs

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**Marks** 1.00/1.00

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**Grade** **4.00** out of 4.00 (**100%**)

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**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>
```

```

1 // C program to find the difference between two elements in an array
2
3 int main() {
4     int n;
5     scanf("%d", &n);
6
7     int A[n];
8     for (int i = 0; i < n; i++) scanf("%d", &A[i]);
9
10    int k;
11    scanf("%d", &k);
12
13    int i = 0, j = 1;
14    int found = 0;
15
16    while (i < n && j < n) {
17        int diff = A[j] - A[i];
18
19        if (i != j && diff == k) {
20            found = 1;
21            break;
22        }
23        if (diff < k) j++;
24        else i++;
25    }
26
27    printf("%d", found);
28    return 0;
29 }
30

```

	Input	Expected	Got	
✓	3 1 3 5 4	1	1	✓

	Input	Expected	Got	
✓	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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