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**Started on** Saturday, 1 November 2025, 8:12 PM

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**State** Finished

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**Completed on** Saturday, 1 November 2025, 8:23 PM

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**Time taken** 10 mins 48 secs

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**Marks** 1.00/1.00

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**Grade** **10.00** out of 10.00 (**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 | int main(){
```

```

3  int n;
4  scanf("%d",&n);
5  int A[n];
6  for(int i=0;i<n;i++){
7      scanf("%d",&A[i]);
8  }
9  int k;
10 scanf("%d",&k);
11 int i=0,j=1,found=0;
12 while(j<n){
13     int diff=A[j]-A[i];
14     if(diff==k&&i!=j){
15         found=1;
16         break;
17     }
18     else if(diff<k){
19         j++;
20     }
21     else{
22         i++;
23     }
24     if(i==j)
25         j++;
26 }
27 printf("%d\n",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.