

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 a;scanf("%d", &a);
4     int arr[a];
5     for(int i=0;i<a;i++)scanf("%d", &arr[i]);
6     int c=0,k;scanf("%d", &k);
7     int i=0,j=1;
8     while(j<a){
9         int d=arr[j]-arr[i];
10        if (d==k&&i!=j){
11            c=1;break;}
12        else if(d<k)j++;
13        else i++;}
14    if(c==1)printf("1");
15    else printf("0");
16 }
```

	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	✓

	Input	Expected	Got	
✓	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.

◀ 5-Pair with Difference- $O(n^2)$ Time Complexity, $O(1)$ Space Complexity

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