
Started on Saturday, 1 November 2025, 8:27 PM

State Finished

Completed on Saturday, 1 November 2025, 8:35 PM

Time taken 8 mins 47 secs

Marks 1.00/1.00

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 |
| 1 3 5 | |
| 4 | |

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 }
10 int k;
11 scanf("%d",&k);
12 int i=0,j=1,found=0;
13 while(j<n){
14     int diff=A[j]-A[i];
15     if(diff==k && i!=j){
16         found=1;
17         break;
18     }
19     else if(diff<k){
20         j++;
21     }
22     else{
23         i++;
24     }
25     if(i==j)
26         j++;
27 }
28 printf("%d\n",found);
29 return 0;
30 }
31 }
```

| | 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.