

Started on Thursday, 30 October 2025, 8:49 AM

State Finished

Completed on Thursday, 30 October 2025, 9:01 AM

Time taken 12 mins 25 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 {
4     int n;
5     scanf("%d",&n);
6     int arr[n];
7     for(int i=0;i<n;i++)
8     {
9         scanf("%d",&arr[i]);
10    }
11    int x;
12    scanf("%d",&x);
13    int i=0,j=1;
14    int found=0;
15    while(i<n && j<n)
16    {
17        if(i!=j && (arr[j]-arr[i]==x))
18        {
19            found=1;
20            break;
21        }
22        else if(arr[j]-arr[i]<x)
23        {
24            j++;
25        }
26        else{
27            i++;
28        }
29    }
30    printf("%d",found);
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.