



Started on Wednesday, 8 October 2025, 3:25 PM

State Finished

Completed on Wednesday, 8 October 2025, 3:43 PM

Time taken 18 mins 9 secs

Marks 1.00/1.00

Grade 4.00 out of 4.00 (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
3  int find_pair_with_difference(int arr[], int n, int k) {
4      int i = 0, j = 1;
5      while (i < n && j < n) {
6          if (i != j) {
7              int diff = arr[j] - arr[i];
8              if (diff == k) {
9                  return 1;
10             } else if (diff < k) {
11                 j++;
12             } else {
13                 i++;
14             }
15         } else {
16             j++; // Avoid i == j case
17         }
18     }
19     return 0;
20 }
21
22 int main() {
23     int n;
24     scanf("%d", &n);
25
26     int arr[n];
27     for (int i = 0; i < n; i++) {
28         scanf("%d", &arr[i]);
29     }
30
31     int k;
32     scanf("%d", &k);
33
34     int result = find_pair_with_difference(arr, n, k);
35     printf("%d\n", result);
36
37     return 0;
38 }

```

	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.

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