

[Dashbo...](#) / [My cour...](#) / [CS23331-DAA-2023-...](#) / [Competitive Program...](#) / [5-Pair with Difference- \$O\(n^2\)\$ Time Complexity, \$O\(1\)\$  Space Com...](#)

Started on	Tuesday, 12 November 2024, 9:09 AM
State	Finished
Completed on	Tuesday, 12 November 2024, 9:09 AM
Time taken	11 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  #include<stdlib.h>
3  void array(int n,int a[],int k){
4      for(int i=0;i<n;i++){
5          for(int j=i+1;j<n;j++){
6              if(abs(a[i]-a[j])==k){
7                  printf("1");
8                  return;
9              }
10         }
11     }
12     printf("0");
13 }
14 int main(){
15     int n,k;
16     scanf("%d",&n);
17     int a[n];
18     for(int i=0;i<n;i++){
19         scanf("%d",&a[i]);
20     }
21     scanf("%d",&k);
22     array(n,a,k);
23     return 0;
24 }
25

```

	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.

[◀ 4-Print Intersection of 2 sorted arrays- \$O\(m+n\)\$ Time Complexity, \$O\(1\)\$  Space Complexity](#)

Jump to...

[6-Pair with Difference - \$O\(n\)\$  Time Complexity, \$O\(1\)\$  Space Complexity ▶](#)