

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

Started on	Tuesday, 19 November 2024, 1:40 AM
State	Finished
Completed on	Tuesday, 19 November 2024, 10:32 PM
Time taken	20 hours 52 mins
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  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 k;
12     scanf("%d",&k);
13     for(int i=0;i<n;i++)
14     {
15         for(int j=i+1;j<n;j++)
16         {
17             if(arr[j]-arr[i]==k)
18             {
19                 printf("1\n");
20                 return 0;
21             }
22         }
23     }
24     printf("0\n");
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 ▶](#)