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Started on	Tuesday, 5 November 2024, 2:11 PM
State	Finished
Completed on	Tuesday, 5 November 2024, 2:17 PM
Time taken	6 mins 38 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<stdbool.h>
3 int main(){
4     int n;
5     scanf("%d",&n);
6     int arr[n];
7     for(int i=0;i<n;i++){
8         scanf("%d",&arr[i]);
9     }
10    int k;
11    bool r = false;
12    scanf("%d",&k);
13
14    for(int i=0;i<n;i++){
15        for(int j=i+1;j<n;j++){
16            if(arr[i]==k || arr[j]==k){
17                r = true;
18                break;
19            }
20            if(arr[i]+arr[j]==k){
21                r = true;
22                break;
23            }
24        }
25    }
26    if(r){
27        printf("1") ;
28    }
29    else{
30        printf("0");
31    }
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.

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

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