

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 main() {
4     int n;
5     scanf("%d", &n);
6
7     int A[n];
8     for (int i = 0; i < n; i++)
9         scanf("%d", &A[i]);
10
11     int k;
12     scanf("%d", &k);
13
14     int i = 0, j = 1;
15     int found = 0;
16
17     while (j < n) {
18         int diff = A[j] - A[i];
19
20         if (diff == k && i != j) {
21             found = 1;
22             break;
23         } else if (diff < k) {
24             j++;
25         } else {
26             i++;
27             if (i == j)
28                 j++;
29         }
30     }
31
32     printf("%d\n", found);
33     return 0;
34 }
35

```

	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! ✓