Given an array of integers, find the longest subarray where the absolute difference between any two elements is less than or equal to 1.

Example

$a = [1, 1, 2, 2, 4, 4, 5, 5, 5]$

There are two subarrays meeting the criterion: $[1, 1, 2, 2]$ and $[4, 4, 5, 5, 5]$. The maximum length subarray has 5 elements.

Function Description

Complete the pickingNumbers function in the editor below.

pickingNumbers has the following parameter(s):

- int a[n]: an array of integers

Returns

- int: the length of the longest subarray that meets the criterion

Input Format

The first line contains a single integer n, the size of the array a.

The second line contains n space-separated integers, each an $a[i]$.

Constraints

- $2 \leq n \leq 100$

- $0 < a[i] < 100$

- The answer will be ≥ 2.

```python
8
9    #
10   # Complete the 'pickingNumbers' function below.
11   #
12   # The function is expected to return an INTEGER.
13   # The function accepts INTEGER_ARRAY a as parameter.
14   #
15
16 ∨ def pickingNumbers(a):
17       # Write your code here
18       # to note: in this question, subarray doesn't mean a solid subarray
19       # the creator of this question should have mentioned that
20       # I have written the solution that should work for a solid subarray, and that's why I'm sorting the array
21       # This increases the time complexity from O(n) to O(nlog(n)) -.-
22       a.sort()
23       result = -1
24       (cur_max, cur_min, cur_len) = (a[0], a[0], 1)
25
26 ∨     for ele in a[1:]:
27 ∨         if (abs(ele-cur_max)<=1) and (abs(ele-cur_min)<=1):
28             cur_len += 1
29             cur_max = max(cur_max, ele)
30             cur_min = min(cur_min, ele)
31 ∨           if cur_len >= 2:
32                 result = max(result, cur_len)
33
34 ∨         else:
35             cur_len = 1
36             cur_max = ele
37             cur_min = ele
38
39         return result
40
41
42
43
44
45
46
47
48
49
```

Line: 57 Col: 5

⬆ Upload Code as File   ☐ Test against custom input   Run Code   Submit Code

Congratulations

You solved this challenge. Would you like to challenge your friends? 🇫 🐦 in   Next Challenge

✓ Test case 0	Compiler Message
✓ Test case 1	Success
✓ Test case 2 🔒	
✓ Test case 3 🔒	Input (stdin) Download
✓ Test case 4 🔒	1 6
✓ Test case 5 🔒	2 4 6 5 3 3 1
	Expected Output Download
	1 3