1. Longest Subarray

Given an array of integers, what is the length of the longest subarray containing no more than two distinct values such that the distinct values differ by no more than 1?

Example
arr = [0,1,2,1,2,3]
The largest such subarray has length 4: [1,2,1,2].

arr = [1, 1, 1, 3, 3, 2, 2]
The largest such subarray has length 4: [3, 3, 2, 2]. The values 1 and 3 differ by more than 1 so [1, 1, 1, 3, 3] is not valid.

Function Description
Complete the function *longestSubarray* in the editor below.

longestSubarray has the following parameter(s):
int arr[n]: an array of integers
Returns:
int: the length of the longest subarray
Constraints

- The longest subarray will have fewer than 35 elements.
- $1 \le n \le 10^5$
- $1 \le arr[i] \le 10^9$

▼ Input Format For Custom Testing

The first line contains an integer, *n*, denoting the number of elements in *arr*.

Each line *i* of the *n* subsequent lines contains a single integer denoting *arr[i]*.

▼ Sample Case 0

Sample Input For Custom Testing

```
5
1
2
3
4
5
```

Sample Output

```
2
```

Explanation
n = 5
arr = [1, 2, 3, 4, 5]

All elements are distinct, so any subarray of length 2 is the maximum.

▼ Sample Case 1

Sample Input For Custom Testing

```
3
2
2
1
```

Sample Output

```
3
```

Explanation
n = 3
arr = [2, 2, 1]
The maximum subarray is length 3 (i.e. the entire array), as it contains only 2 distinct values.