Rick decided to play cards. He had a set of `n` cards with numbers $a_1, a_2, \ldots a_n$.

The card sequence is good if there are no 2 neighboring even numbers, there are no 2 neighboring odd numbers. So, the sequence of the numbers should be, for example, like this: odd, even, odd, even, etc. Also the number at the previous card should be strictly less than the number at the next.

Rick carefully shuffled the cards and set to work. We wanted to find the longest sequence of cards that met the conditions. You task is to return the length of such longest sequence.

Example

For `cards = [3, 2, 8, 1, 4, 3]`, the output should be `maxCardSequence(cards) = 4`.

- As the sequence `[1, 2, 3, 8]` is a good sequence of cards.

Input/Output

- **[execution time limit] 4 seconds (js)**
- **[input] array.integer cards**

  The numbers of the cards.

  Guaranteed constraints:

  $1 \le cards.length \le 10^5$,

  $1 \le cards[i] \le 10^9$.

- **[output] integer**

  The length of the longest good sequence of cards.

[JavaScript (ES6)] Syntax Tips

```
// Prints help message to the console
// Returns a string
function helloWorld(name) {
    console.log("This prints to the console when you Run Tests");
    return "Hello, " + name;
}
```