2963. Count the Number of Good Partitions

My Submissions (/contest/weekly-contest-375/problems/count-the-number-of-good-partitions/submissions/)

Back to Contest (/contest/weekly-contest-375/)

You are given a **0-indexed** array `nums` consisting of **positive** integers.

A partition of an array into one or more **contiguous** subarrays is called **good** if no two subarrays contain the same number.

Return *the **total number** of good partitions of* `nums`.

Since the answer may be large, return it **modulo** $10^9 + 7$.

User Accepted:	1832
User Tried:	2525
Total Accepted:	1984
Total Submissions:	5006
Difficulty:	Hard

Example 1:

```
Input: nums = [1,2,3,4]
Output: 8
Explanation: The 8 possible good partitions are: ([1], [2], [3], [4]), ([1], [2], [3,4]), ([1], [2,3], [4]), ([1], [2,
```

Example 2:

```
Input: nums = [1,1,1,1]
Output: 1
Explanation: The only possible good partition is: ([1,1,1,1]).
```

Example 3:

```
Input: nums = [1,2,1,3]
Output: 2
Explanation: The 2 possible good partitions are: ([1,2,1], [3]) and ([1,2,1,3]).
```

Constraints:

- $1 <= nums.length <= 10^5$
- $1 <= nums[i] <= 10^9$

Discuss (https://leetcode.com/problems/count-the-number-of-good-partitions/discuss)

JavaScript

```
const ll = BigInt, mod = 1e9 + 7;
const pow_mod = (a, b, mod) => { let r = 1; while (b > 0) { if (b & 1) r = multi_mod(r, a, mod); b >>= 1; a = multi_mod(a, a, mod); } return r; };
const multi_mod = (x, y, mod) => Number(ll(x) * ll(y) % ll(mod));

const numberOfGoodPartitions = (a) => {
    let last = new Map(); // save last occurence index of value
    a.map((x, i) => last.set(x, i))
    let r = -1, res = 0;
    a.map((x, i) => {
        r = Math.max(r, last.get(x)); // when x added, this current partitioned array should enlarge to max index of x
        if (r == i) res++; // r and i overlap, partition/non-partition 2 cases
    })
    return pow_mod(2, res - 1, mod);
};
```

Custom Testcase Use Example Testcases

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Submission Result: Accepted (/submissions/detail/1116240549/) More Details (/submissions/detail/1116240549/)

Share your acceptance!