



5833. Count Number of Special Subsequences

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A sequence is **special** if it consists of a **positive** number of **0** s, followed by a **positive** number of **1** s, then a **positive** number of **2** s.

- For example, `[0,1,2]` and `[0,0,1,1,1,2]` are special.
- In contrast, `[2,1,0]`, `[1]`, and `[0,1,2,0]` are not special.

Given an array `nums` (consisting of **only** integers **0**, **1**, and **2**), return *the number of different subsequences that are special*. Since the answer may be very large, return it modulo $10^9 + 7$.

A **subsequence** of an array is a sequence that can be derived from the array by deleting some or no elements without changing the order of the remaining elements. Two subsequences are **different** if the **set of indices** chosen are different.

User Accepted:	0
User Tried:	0
Total Accepted:	0
Total Submissions:	0
Difficulty:	Hard

Example 1:

Input: `nums = [0,1,2,2]`

Output: 3

Explanation: The special subsequences are `[0,1,2,2]`, `[0,1,2,2]`, and `[0,1,2,2]`.

Example 2:

Input: `nums = [2,2,0,0]`

Output: 0

Explanation: There are no special subsequences in `[2,2,0,0]`.

Example 3:

Input: `nums = [0,1,2,0,1,2]`

Output: 7

Explanation: The special subsequences are:

- `[0,1,2,0,1,2]`
- `[0,1,2,0,1,2]`
- `[0,1,2,0,1,2]`
- `[0,1,2,0,1,2]`
- `[0,1,2,0,1,2]`
- `[0,1,2,0,1,2]`
- `[0,1,2,0,1,2]`

Constraints:

- $1 \leq \text{nums.length} \leq 10^5$
- $0 \leq \text{nums}[i] \leq 2$

JavaScript



```
1 ▾ /**
2   * @param {number[]} nums
3   * @return {number}
4   */
5 ▾ var countSpecialSubsequences = function(nums) {
6
7   };
```

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