

5974. Number of Ways to Divide a Long Corridor

[My Submissions \(/contest/biweekly-contest-70/problems/number-of-ways-to-divide-a-long-corridor/submissions/\)](#)
[Back to Contest \(/contest/biweekly-contest-70/\)](#)

Along a long library corridor, there is a line of seats and decorative plants. You are given a **0-indexed** string `corridor` of length `n` consisting of letters `'S'` and `'P'` where each `'S'` represents a seat and each `'P'` represents a plant.

One room divider has **already** been installed to the left of index `0`, and **another** to the right of index `n - 1`. Additional room dividers can be installed. For each position between indices `i - 1` and `i` ($1 \leq i \leq n - 1$), at most one divider can be installed.

Divide the corridor into non-overlapping sections, where each section has **exactly two seats** with any number of plants. There may be multiple ways to perform the division. Two ways are **different** if there is a position with a room divider installed in the first way but not in the second way.

Return *the number of ways to divide the corridor*. Since the answer may be very large, return it **modulo** $10^9 + 7$. If there is no way, return `0`.

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

Example 1:



Input: `corridor = "SSPPSPS"`

Output: 3

Explanation: There are 3 different ways to divide the corridor.

The black bars in the above image indicate the two room dividers already installed.

Note that in each of the ways, **each** section has exactly **two** seats.

Example 2:



Input: `corridor = "PPSPSP"`

Output: 1

Explanation: There is only 1 way to divide the corridor, by not installing any additional dividers.

Installing any would create some section that does not have exactly two seats.

Example 3:



Input: `corridor = "S"`

Output: 0

Explanation: There is no way to divide the corridor because there will always be a section that does not have exactly two seats.

Constraints:

- `n == corridor.length`

- $1 \leq n \leq 10^5$
- `corridor[i]` is either 'S' or 'P'.


JavaScript



```
1 /**
2  * @param {string} corridor
3  * @return {number}
4  */
5 var numberOfWays = function(corridor) {
6
7  };
```

☐ Custom Testcase[Use Example Testcases](#)[Run](#)[Submit](#)

Copyright © 2022 LeetCode

[Help Center \(/support\)](#) | [Jobs \(/jobs\)](#) | [Bug Bounty \(/bugbounty\)](#) | [Online Interview \(/interview/\)](#) | [Students \(/student\)](#) | [Terms \(/terms\)](#) | [Privacy Policy \(/privacy\)](#) [United States \(/region\)](#)