

# 2577. Count Palindromic Subsequences

## Difficulty : Hard

<https://leetcode.com/problems/count-palindromic-subsequences>

Given a string of digits  $s$ , return *the number of **palindromic subsequences** of  $s$  having length 5*. Since the answer may be very large, return it **modulo**  $10^9 + 7$ .

### Note:

- A string is **palindromic** if it reads the same forward and backward.
- A **subsequence** is a string that can be derived from another string by deleting some or no characters without changing the order of the remaining characters.

### Example 1:

**Input:**  $s = "103301"$

**Output:** 2

**Explanation:**

There are 6 possible subsequences of length 5: "10330", "10331", "10301", "10301", "13301", "03301". Two of them (both equal to "10301") are palindromic.

### Example 2:

**Input:**  $s = "0000000"$

**Output:** 21

**Explanation:** All 21 subsequences are "00000", which is palindromic.

### Example 3:

**Input:**  $s = "9999900000"$

**Output:** 2

**Explanation:** The only two palindromic subsequences are "99999" and "00000".

### Constraints:

- $1 \leq s.length \leq 10^4$
- $s$  consists of digits.