Problem 1513: Number of Substrings With Only 1s

Problem Information

Difficulty: Medium
Acceptance Rate: 57.47%
Paid Only: No
Tags: Math, String

Problem Description

Given a binary string `s`, return _the number of substrings with all characters_ `1` _' s_. Since the answer may be too large, return it modulo `109 + 7`.

Example 1:

Input: s = "0110111" **Output:** 9 **Explanation:** There are 9 substring in total with only 1's characters. "1" -> 5 times. "11" -> 3 times. "111" -> 1 time.

Example 2:

Input: s = "101" **Output:** 2 **Explanation:** Substring "1" is shown 2 times in s.

Example 3:

Input: s = "111111" **Output:** 21 **Explanation:** Each substring contains only 1's characters.

Constraints:

* `1 <= s.length <= 105` * `s[i]` is either `'0'` or `'1'`.

Code Snippets

C++:

```cpp
class Solution {
public:
int numSub(string s) {



}
};
```

Java:

```java
class Solution {
public int numSub(String s) {



}
}
```

Python3:

```python
class Solution:
    def numSub(self, s: str) -> int:
```