PROBLEM

Sum of all substrings of a number □

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Medium

Accuracy: 38.11%

Submissions: 38K+

Points: 4

Given an integer s represented as a string, the task is to get the sum of all possible sub-strings of this string. As the answer will be large, return answer modulo 10^9+7 .

Note: The number may have leading zeros.

Example 1:

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Input:
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s = "1234"

Output:

1670

Explanation:

Sum = 1 + 2 + 3 + 4 + 12 + 23 + 34 + 123 + 234 + 1234 = 1670

Example 2:

Input:

s = "421"

Output:

491

Explanation:

$$Sum = 4 + 2 + 1 + 42 + 21 + 421 = 491$$

Your Task:

You only need to complete the function sumSubstrings that takes s as an argument and returns the answer modulo 10^9 +7.

Expected Time Complexity: O(|s|).

Expected Auxiliary Space: O(|s|).

Constraints:

CODE

#User function Template for python3
class Solution:
#Function to find sum of all possible substrings of the given string.
def sumSubstrings(self,s):
<u>n=len(s)</u>
<u>prev=int(s[0])</u>
res=prev
for i in range(1,n):
temp=(int(s[i]))*(i+1)+prev*10
res=(res+temp)%1000000007
prev=temp%100000007
return res

