Manasa and Sub-sequences

Manasa recently lost a bet to Amit. To settle the problem, they are playing a game:

They have N balls in front of them. Each ball, except the 1st ball, is numbered from 0 to 9. The 1st ball is numbered from 1 to 9.

Amit calculates all the subsequences of the number thus formed. Each subsequence of sequence S is represented by S_k.

e.g. S = 1 2 3

S_0 = 1 2 3 ,
S_1 = 1 2 ,
S_2 = 1 3 ,
S_3 = 2 3 ,
S_4 = 1 ,
S_5 = 2 , and
S_6 = 3 .

Each subsequence S_k also represents a number. e.g. S_1 represents tweleve, S_2 represents thirteen.

Now Manasa has to throw S_k candies into an intially empty box, where k goes from 0 to (maximum number of subsequences - 1).

At the end of the game, Manasa has to find out the total number of candies, T, in the box. As T can be large, Amit asks Manasa to tell T % (10^9 + 7). If Manasa answers correctly, she can keep all the candies. Manasa can't take all this Math and asks for your help.

Help her!

Note: A subsequence can also be have preceding zeros. For example, the sequence *103* has subsequences *103*, *10*, *13*, *03*, *1*, *0*, and *3* (so both *03* and *3* are counted separately).

Input Format
A single line containing a number having N digits.

Output Format
A number contaning the output.

Constraints
$1 \leq N \leq 2*10^5$

Sample Input 00

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111
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Sample Output 00

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147
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Sample Input 01

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123
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Sample Output 01

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177
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Explanation

The subsequence of number 111 are 111, 11 , 11, 11, 1, 1 and 1. Whose sum is 147.

The subsequence of number 123 are 123, 12 , 23, 13, 1, 2 and 3. Whose sum is 177.