Decoding

Anne has a message and she encoded it to get a secret string. The message contains Latin letters in upper or lower case and its length does not exceed 10^5.

Bob wants to decode the secret string to get the message and he knows the encoding process of Anne:

- Choose an integer d ranging from 1 to 9 to be a key.
- Each letter in the message is encoded one by one from left to right.
- Each letter is converted to ASCII before the encoding process:
    - If ASCII value of a letter is a 3-digit number, the value is added directly to the secret string.
    - If ASCII value of a letter is a 2-digit number, the number d is inserted at random position in the ASCII value to create a 3-digit number. Then, the new ASCII value is added to the secret string.

With that encoding process, the encoded message can have different values. For example, message `Az` with $d = 8$ can leads to 3 different secret string: `865122`, `685122`, `658122`.

Bob also does not know the key in the process. However, he still wants to guess the message, so he tries to count **the number of different messages** that could generate the given secret string.

Given the secret string s, calculate the number of possible messages.

Input

The input contains a string of digits with length does not exceed 3×10^5 and is a multiple of 3.

Ouput

The output contains a single integer – the number of possible messages in modulo of $10^9 + 7$.

Sample

DECODING.INP	DECODING.OUT	Giải thích
988	2	s="b", d=8 hoặc s="X", d=9
100905	1	s="d", d=5
600	0	