Count Pairs

Dreamplay likes to go to **math clubs**. These are the places where like-minded people, interested in mathematics, discuss several problem solving techniques.

Today, looking at the progress of Dreamplay, his friend decides to challenge him with a hard problem in the club.

He gives Dreamplay a number n and asks to determine, number of pairs (x, y) such that

- $S(x) < S(y)$ where $S(k)$ denotes the sum of digits of integer k.
- $0 \leq x < y \leq n$

Can you help Dreamplay find the answer?

Input Format

The only line of input consists a single integer n.

Constraints

- $1 \leq n \leq 10^{250}$

Output Format

Print the number of pairs, that satisfy the above property modulo $10^9 + 7$.

Sample Input 0

```
3
```

Sample Output 0

```
6
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Explanation 0

The number of valid pairs such that $0 \leq x < y \leq 3$ and $S(x) < S(y)$ are $(0, 1), (0, 2), (0, 3), (1, 2), (1, 3), (2, 3)$. Therefore, the output is 6.

Sample Input 1

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67535
```

Sample Output 1

```
358739816
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