

Project Euler #164: Numbers for which no three consecutive digits have a sum greater than a given value.

This problem is a programming version of Problem 164 from projecteuler.net

How many m - digit numbers n (without any leading zero) exist such that no three consecutive digits of n have a sum greater than 9?

Print answer modulo $(10^9 + 7)$.

Input Format

One integer is given on first line representing m.

Constraints

• $3 \le m \le 100$

Output Format

Print one integer which is the answer modulo $(10^9 + 7)$

Sample Input 0

3

Sample Output 0

165