

Pondo Fibonacci

time limit per test: 5 seconds
memory limit per test: 976.6 megabytes
input: standard input
output: standard output

points: 100 · problem code: pondofibonacci · author: jszqlw

Problem Statement

Pondo would like to know the n^{th} Fibonacci number modulo $10^9 + 7$. The n^{th} Fibonacci number is determined by the following recurrence $f(n) = f(n - 1) + f(n - 2)$ and $f(1) = 1, f(0) = 0$.

Input Format

Your first line of input will contain a single integer n .

Output Format

Output a single integer representing the n^{th} Fibonacci number modulo $10^9 + 7$.

Constraints

- $1 \leq n \leq 10^9$

Sample Cases

Input 1

10

Output 1

55

Input 2

1000000000

Output 2

21

Explanation 2

Remember to modulo.

Input 3

99999999

Output 3

36891058