

# Recursion [I]

time limit per test: 1 second  
memory limit per test: 256 megabytes  
input: standard input  
output: standard output

points: 100 · problem code: recursion1 · author: glipR

---

The Fibonacci Sequence is a famous sequence defined by the recurrence relation:

$$\begin{cases} F(n) = 1 & 0 \leq n \leq 1 \\ F(n) = F(n-1) + F(n-2) & n \geq 2 \end{cases}$$

For example,  $F(0), F(1), F(2), F(3), F(4)$  can be written as 1, 1, 2, 3, 5

In this question, you must compute  $F(n)$  for some value  $n$ . Since the value may be quite large, output your answer modulo  $10^9 + 7$ .

## Input

---

Input will contain a single integer  $n$

## Output

---

Output should contain a single integer, representing  $F(n) \bmod 10^9 + 7$ .

## Constraints

---

- $0 \leq n \leq 10^{18}$

## Example

---

### Input

5

### Output

8