Fibonacci Sequence

Time limit: 1.0s   **Memory limit:** 64M

The Fibonacci sequence is a well known sequence of numbers in which

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

Given a number N $(1 \leq N \leq 10^{19})$, find the Nth Fibonacci number, modulo $1\,000\,000\,007$ $(= 10^9 + 7)$.

Note: For 30% of the marks of this problem, it is guaranteed that $(1 \leq N \leq 1\,000\,000)$.

Input Specification

The first line of input will have the number N.

Output Specification

The Nth Fibonacci number, modulo $1\,000\,000\,007$ $(= 10^9 + 7)$.

Sample Input

```
26
```

Sample Output

```
121393
```