Fibonacci numbers (1)   P72994_en

The Fibonacci numbers F_n are defined as follows:

$$F_n = \begin{cases} 0 & \text{if } n = 0 \\ 1 & \text{if } n = 1 \\ F_{n-1} + F_{n-2} & \text{if } n \geq 2 \end{cases}$$

Therefore, the first Fibonacci numbers are 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, ...

For every given natural number n, compute $F_n \bmod 10^8 + 7$.

Input

Input consists of several n. Assume $0 \leq n \leq 10^5$.

Output

For every given n, print $F_n \bmod 10^8 + 7$.

Sample input	Sample output
0	0
1	1
10	55
100000	33178829

Problem information

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