**POWER FUNC**

Function f is defined as -

if x < 2, f(x) = x + 1

else f(x) = (f(x-1)^f(x-2)) mod hell

where hell = 1000000007

For given x, return the value of f(x)  
Note a^b denotes pow(a, b)

**Input Format**

There is only one line, which contains only one integer, the value of x for which you have to find value of f(x).

**Constraints**

0 <= x <= 10^6

**Output Format**

print value of f(x) for given x.

**Sample Input 0**

3

**Sample Output 0**

4

**Sample Input 1**

5

**Sample Output 1**

65536