

Fibbing Fibonacci

Problem

The famous Fibonacci sequence is named after Leonardo of Pisa, who was known as Fibonacci. In mathematics, the Fibonacci numbers are the numbers in the following sequence:

0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, ...

By definition, the first two Fibonacci numbers are 0 and 1, and each remaining number is the sum of the previous two. Some sources omit the initial 0, instead beginning the sequence with two 1s.

In mathematical terms, the sequence F_n of Fibonacci numbers is defined by the recurrence relation

$$F_n = F_{\{n-1\}} + F_{\{n-2\}},$$

with seed values

$$F_0 = 0 \text{ and } F_1 = 1$$

Given x , generate a program that can compute F_x , where $x \geq 0$.

Examples

Example Input A

0

Example Output A

0

Example Input B

50

Example Output B

12586269025