



## Problem F. Large Fibonacci

In mathematics, the Fibonacci numbers are the numbers in the following integer sequence, called the Fibonacci sequence, and characterized by the fact that every number after the first two is the sum of the two preceding ones. The sequence  $F_n$  of Fibonacci numbers is defined by the recurrence relation:  $F_n = F_{n-1} + F_{n-2}$

Some first element of Fibonacci sequence are: 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, ...

Your task is to write program to find the  $n^{\text{th}}$  Fibonacci number and return it raised to the power of  $n$ .

Example:  $n = 3$ , the output should be result = 8. (Third Fibonacci number is 2 and  $2^3 = 8$ )

### Input

The input contains a positive integer  $n$  ( $1 \leq n \leq 25$ ).

### Output

You should print one single number: the  $n^{\text{th}}$  Fibonacci raised to the power of  $n$ .

### Examples

Standard Input	Standard Output
3	8
4	81