

Fibonacci

Time limit: 1 sec

Fibonacci number is a sequence of number which is <0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, ...>. We let the i^{th} Fibonacci number be denoted by F_i . The first two numbers, F_0 and F_1 are defined as 0 and 1, respectively. The remaining number is calculated by adding the previous two numbers together, following this recurrent relation

$F_i = F_{i-1} + F_{i-2}$ For example the 2nd Fibonacci number, F_2 , is $1 = 0 + 1$.

Your task is to calculate F_N

Input

Input has exactly one line containing exactly one integer **N** ($1 \leq N \leq 45$)

Output

Output exactly one line containing F_N

Example

Input	Output
1	1
10	55
17	1597