



Fibonacci Sequence

The fibonacci sequence is defined as the sequence F_N with

- $F_0 = 0$
- $F_1 = 1$
- $F_N = F_{N-1} + F_{N-2}$, for $N \geq 2$.

The first elements of the sequence are 0, 1, 1, 2, 3, 5, 8, 13.

Input

An integer N .

Output

Output a single number: the N -th Fibonacci number. You can assume that this number is at most 2^{63} .

Limits

You can assume $0 \leq N \leq 90$.

Examples

Input	Output
10	55

Input	Output
90	2880067194370816120