Extended Fibonacci Sequence

You are given a sequence of Fibonacci numbers, defined as $F_0 = 0$, $F_1 = 1$, and $F_n = F_{n-1} + F_{n-2}$ for all $n>1$.

Define the nth term of a sequence S as $S_n = S_{n-1} \,||\, F_n$, *where '||' is the concatenation operator.*

Your task:

Given n, return the last 11 digits of $\sum_{i=1}^{n} S_i$. Remove any leading zeros.

Bounds:
$1 \le n \le 1000$

Input:
Line 1 contains a single number n.

Output:
The output contains at most 11 digits on one line.

Sample Input:
30

Sample Output:
64233954228