Problem G. Fibonacci

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	1024 megabytes

In mathematics, the Fibonacci numbers, commonly denoted as f_n, is a sequence such that each number is the sum of the two preceding numbers, starting with 1 and 1. That is, $f_1 = 1, f_2 = 1$ and $f_n = f_{n-2} + f_{n-1}$ $(n \geq 3)$.

Thus, the beginning of the sequence is $1, 1, 2, 3, 5, 8, 13, 21, \ldots$.

Given n, please calculate $\sum_{i=1}^{n} \sum_{j=i+1}^{n} g(f_i, f_j)$, where $g(x, y) = 1$ when $x \cdot y$ is even, otherwise $g(x, y) = 0$.

Input

The only line contains one integer n $(1 \leq n \leq 10^9)$.

Output

Output one number – $\sum_{i=1}^{n} \sum_{j=i+1}^{n} g(f_i, f_j)$.

Examples

standard input	standard output
3	2
10	24
100	2739