

# How Many Trees 2

lqp18\_31 count unrooted unlabeled trees with  $N$  nodes one by one.

But the number is so large that he is afraid that he will never stop counting.

So he asks you to tell him the number of unrooted unlabeled trees with  $N$  nodes module  $10^9+7$ .

## Input

one line consists one interger  $N$ . ( $1 \leq N \leq 1000$ )

## Output

one line consists the number of unrooted unlabeled trees with  $N$  nodes module  $10^9+7$

## Example

**Input:**

10

**Output:**

106