**A**

Andy decided to arrange a race between Rex and his new toy - an RC racing car. Although Rex runs slower than the car, according to racing rules, the RC must stop in the middle of the track to refuel and change wheels. The length of the track is L meters, the speed of Rex is V1 m/s, the speed of RC is V2 m/s.

Determine the maximum stopping time for RC in seconds that will allow RC to reach the finish line before Rex. (Andy can only measure time in whole seconds).

The input contains three integers: the length of the trace L (1≤L≤100), Rex speed V1, RC speed V2 (1≤V1<V2≤10).

Print one integer – the maximum RC stopping time. Output 0 if RC cannot stop even for a second.

Input example 1

10 1 2

Example output 1

4

Input example 2

10 4 6

Example output 2

0

**B**

Andy found a magic coin. The denomination of this coin is N. When you place this coin in a piggy bank, after a second it turns into N magic coins with face value N−1, then after a second each of these coins turns into N−1 coin with denomination N−2. And so on until the denomination of all coins becomes equal to 1.

For example, if Andy found a coin with a value of 4, then he will first receive 4 coins with a value of 3, then 12 coins with a value of 2, and then 24 coins with a value of 1.

The input contains one integer N (1≤N≤1000).

Print the number of coins in Andy's piggy bank via N seconds Since this number can be very large, print the remainder when dividing the number of coins by 109+7.

Example input

4

Example output

24

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