

# Equations



Find the number of positive integral solutions for the equations

$$\frac{1}{x} + \frac{1}{y} = \frac{1}{N!}$$

## Input Format

An integer N

## Output Format

The number of positive integral solutions for the above equation modulo 1000007

## Constraints

$$1 \leq N \leq 10^6$$

## Sample Input00

1

## Sample Output00

1

## Sample Input01

32327

## Sample Output01

656502

## Sample Input02

40921

## Sample Output02

686720