A Math Contest P13 - Ways

Time limit: 1.0s **Memory limit:** 256M

There are N objects, and you need to choose M of them. Determine the number of ways to choose objects, where the order does not matter. Since this answer may be quite large, output this value modulo K.

Constraints

$1 \leq M \leq N \leq 10^{18}$

$1 \leq K \leq 10^{6}$

Input Specification

The only line contains three space-separated integers, N, M and K.

Output Specification

Output the number of unordered ways to choose M of the N objects, modulo K.

Sample Input

```
5 3 111
```

Sample Output

```
10
```