Problem C
Exponentiation

Time limit: 1 second
Memory limit: 2048 megabytes

Problem Description

Given three positive integers a, b, and m, find $(a^b \mod m)$.

$(x \mod y)$ is the remainder when x is divided by y.

Input Format

The only line of the input contains three integers a, b and m.

Output Format

Output $(a^b \mod m)$ in one line.

Technical Specification

- $1 \leq a, b, m \leq 10^9$

Sample Input 1

```
3 5 100
```

Sample Output 1

```
43
```

Hint

This is an application of the divide-and-conquer algorithm. For more information please refer to the slides.