Power and exponential functions

(Time Limit: 1 second)

Problem Description

Given positive integers x, n and a prime P, you are asked to compute the n-th power of x modulo P, that is, $x^n \pmod P$.

Technical Specification

- The number of test cases is at most 10.
- The numbers of digits of n and x are at most 200.
- P is a positive 31-bit integer.

Input Format

The test file contains several test cases. Each line is a test case and contains three integers x, n and P in this order, separated by a space.

Output Format

For each test case, output the result in one line.

Example

Sample Input:	Sample Output:
10 2 7 20 1 23	2 20