# Multiplicative Inverse

(Time Limit: 2 second)

**Problem Description**

Given positive integer n and a prime P, you are asked to compute the multiplicative inverse of n modulo P, i.e., to find a positive integer y<P such that (n\*y) =1 (mod P).

**Technical Specification**

* + The number of test cases is at most 10.
  + The number of digits of n is at most 100.
  + P is a positive 31-bit integer.

**Input Format**

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

**Output Format**

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

**Example**

|  |  |
| --- | --- |
| **Sample Input:** | **Sample Output:** |
| 10 7  20 3 | 5  2 |