x^y%N

Time limit: 2sec

Problem Description

Find (x^y) %N, where x, y, and N are 32-bits positive integers and N<=10000.

Input Format

每行輸入的測資需要有x,y,N三數,其中N<=10000,當測資輸入0時結束程式

Output Format.

每一組測資後面皆需要有換行,印出(x^y)%N的答案

Sample Input:

2 5 100

12345 1 1000

0

Sample Output

32

345