# RSA Decryption

**Timelimit**: 1s **Memorylimit**:32M

## Description

HuaDe School of Applied Technology of Harbin Institute of Technology ' s cryptology class is holding about RSA

RSA is a well known crypto system. It works as follows. First of all, we have to find two large prime numbers, namely, p and q. Then two positive integers, s and t, are set, so that s\*t≡1 MOD ((p-1)\*(q-1)), that is, s\*t=(p-1)\*(q-1)\*k+1, with k being an integer. Now given r (r=p\*q) and s, we can encrypt all positive integers which are smaller than r. Suppose the number before encryption is n and the number after encryption is m, m≡n^s(mod(r)).

Now, giving r, t and m, you are to calculate n.

## Input

Each test case has three integers on a single line. They are given in the order r, t and m. The condition below is satisfied: 2<=p, q<=50000, 1<=k<=100.

There are multiple test cases. Proceed to the end of file.

## Output

For each test case, print the value of n on a single line.

## Sample Input

851 317 32

851 233 4273

## Sample Output

2

2

## HINT：

For both test cases, the value of p and q are 37 and 23.

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