

# Problem B

## Modulus

Input File: *testdata.in*

Time Limit: 5 seconds

### Problem Description

Given integers  $a$ ,  $b$ , and  $c$ , you are asked to calculate the value of  $a^c \pmod{b}$ , where  $a$  is a prime,  $b > a$  is an integer, and  $c > 0$  is a large integer (almost 65,000 figures) which cannot be represented as a long integer in computer language  $C$ .

### Input Format

The first line contains a positive integer indicating the number of cases. For each test case, there is a line containing three integers  $a$ ,  $b$ , and  $c$  which are separated by a blank.

### Output Format

For each test case, output the value of  $a^c \pmod{b}$  in a line.

### Sample Input

```
2
3 5 3
2 50 10
```

### Sample Output

```
2
24
```