

# Power - Mod Power



## Problem Statement

We have only heard of the powers of Python, so far; now we will witness them :)

Power or exponent in Python can be calculated using the built-in power function. Which can be called as for  $a^b$

```
>>> pow(a,b)
```

or

```
>>> a**b
```

It's also possible to calculate  $a^b \bmod m$ .

```
>>> pow(a,b,m)
```

This is very helpful in computations where you have to print result % mod.

Note that here  $a$  and  $b$  can be floats and even negatives; but if a third argument is present,  $b$  cannot be negative.

**Note** Python has a module `math`, which has its own `pow()` but it takes two arguments and returns a float. Frankly speaking, we will never use `math.pow()`

## Task

You are given three integers; print two lines.

The first line should print `pow(a,b)`, and the second line should print the result of `pow(a,b,m)`.

## Input Format

The first line contains  $a$ , the second line contains  $b$ , and the third line contains  $m$ .

## Constraints

$$1 \leq a \leq 10$$

$$1 \leq b \leq 10$$

$$2 \leq m \leq 1000$$

## Sample Input

```
3
4
5
```

## Sample Output

```
81
1
```