Power - Mod Power

Problem Submissions

So far, we have only heard of Python's powers. Now, we will witness them!

Powers or exponents in Python can be calculated using the built-in power function. Call the power function a^b as shown below:

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

or

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

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

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

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

Note: Here, a and b can be floats or negatives, but, if a third argument is present, b cannot be negative.

Note: Python has a math module that has its own *pow()*. It takes two arguments and returns a float. It is uncommon to use *math.pow()*.

Task

You are given three integers: a, b, and m. Print two lines.
On the first line, print the result of *pow(a,b)*. On the second line, 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
```

More

Current Buffer (saved locally, editable) Python 3

```
1 a = int(input())
2 b = int(input())
3 c = int(input())
4 print(a ** b)
5 print(pow(a,b,c))
```

Line: 5 Col: 18

Upload Code as File Test against custom input Run Code Submit Code