Power - Mod Power

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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.

Frankly speaking, we will never use *math.pow()*.

Task

You are given three integers: a, b, and m, respectively. Print two lines.

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

Author	shashank21j
Difficulty	Easy
Max Score	10
Submitted By	46369

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Sample Output

```
81
1
```

Current Buffer (saved locally, editable) Python 3

```
1 a,b,m=int(input()),int(input()),int(input())
2 print(a**b)
3 print(a**b%m)
```

Line: 3 Col: 14

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Next Challenge

Testcase 0 Testcase 1

Input (stdin)	Download	Expected Output	Download
3 4 5		81 1	

Compiler Message

Success