Power - Mod Power ★

5 more points to get your next star!

Rank: **414287** | Points: **215/220**

You have successfully solved Power - Mod Power

You are now 5 points away from the 4th star for your python badge.

Try the next challenge | Try a Random Challenge

Problem Submissions Leaderboard Editorial

RATE THIS CHALLENGE

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
```

Change Theme Language Pypy 3

```
# Enter your code here. Read input from STDIN. Print output to STDOUT

# n1=input(int())
# n2=input(int())
# m=input(int())
# print(n1**n2)
# print(n1**n2**m)
n1, n2, m = int(input()), int(input()),int(input())
print(f"{pow(n1, n2)}\n{pow(n1, n2, m)}")

```

Line: 10 Col: 1

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

Congratulations

You solved this challenge. Would you like to challenge your friends?

Next Challenge

Test case 0

Test case 1

Compiler Message

Success

Input (stdin) Download

```
3
4
5
```

Expected Output Download

```
81
1
```