



Power - Mod Power ★

45/115 challenges solved

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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 $a^b \bmod m$.

```
>>> 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 $\text{pow}(a,b)$. On the second line, print the result of $\text{pow}(a,b,m)$.

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
```



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Language

Python 3



```
1 # Enter your code here. Read input from STDIN. Print output to STDOUT
2 a = int(input())
3 b = int(input())
4 m = int(input())
5
6 print(pow(a, b))
7 print(pow(a, b, m))
8
```

EMACS

Line: 8 Col: 1

Upload Code as File

☐

Test against custom input

Run Code

Submit Code

You have earned 10.00 points!

45/115 challenges solved.

39%




Congratulations

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

Next Challenge

Test case 0

Compiler Message

✔ Test case 1 

Success

Input (stdin)

1	3
2	4
3	5

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Expected Output

1	81
2	1

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