

Power - Mod Power

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 `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
```

