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 $a^b \mod m$.

>>> 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

 $egin{array}{ll} 1\leq a\leq 10\ 1\leq b\leq 10\ 2\leq m\leq 1000 \end{array}$

Sample Input

3 4 5

Sample Output

81 1