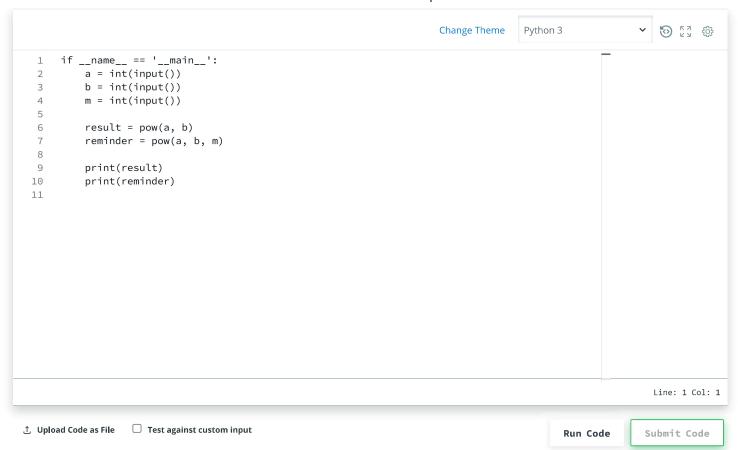# Power - Mod Power ★

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Problem　　　　Submissions　　　　Leaderboard　　　　Editorial 🔒

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. 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

$1 \le a \le 10$
$1 \le b \le 10$
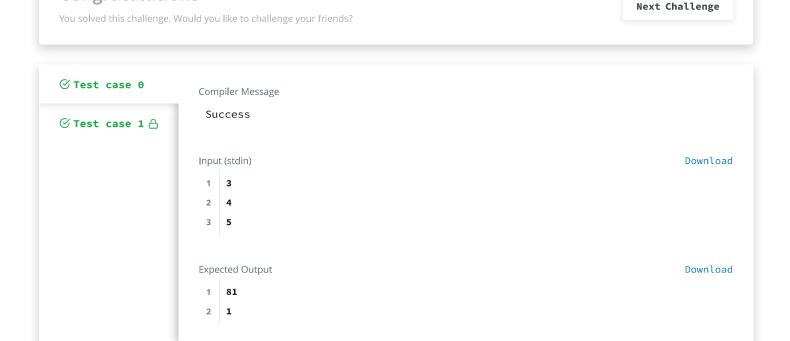$2 \le m \le 1000$

Sample Input

```
3
4
5
```

Sample Output

```
81
1
```

Change Theme　[Python 3 ▾]

```
 1   if __name__ == '__main__':
 2       a = int(input())
 3       b = int(input())
 4       m = int(input())
 5
 6       result = pow(a, b)
 7       reminder = pow(a, b, m)
 8
 9       print(result)
10       print(reminder)
11
```

Line: 1 Col: 1

⬆ Upload Code as File　☐ Test against custom input

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Next Challenge

✓ **Test case 0**

✓ **Test case 1** 🔒

Compiler Message

Success

Input (stdin)　　　　　　　　　　　　　　　　　Download

```
1   3
2   4
3   5
```

Expected Output　　　　　　　　　　　　　　　Download

```
1   81
2   1
```