

L435/L555
Fall 2016

In-class Exercises 7

- 1) Write an iterative function to calculate a factorial value ($n!$). e.g., $6! = 6 \times 5 \times 4 \times 3 \times 2 \times 1$.
- 2) Write a recursive function to calculate a factorial value.
- 3) Write a function that produces random recursive sentences. Specifically, the user gives the program a list of nouns. The program starts the sentence by randomly selecting one noun X and prints “The X was bored.” Then, as long as the user wants, it selects more sentences, which are added along the following line: “The X who chased Y who chased Z ... was bored”. Choose the word by randomly generating a number using the following command. This produces an integer in the range of a and b .

```
import random  
mynum = random.randrange(a, b)
```