Outline for January 11, 2012

Reading: §1

1. IDLE
   a. How to use it
   b. How to start, open a new window
   c. Python shell, prompt
2. Example using IDLE: hello, world
   a. Explain printing
   b. Demonstrate program in IDLE
3. Second example: compute \(2 + 2\), properly labeled \(\text{twoplustwo.py}\)
   a. Difference between '2 + 2', \(2 + 2\)
   b. Print statements usually end lines
   c. Getting print statements not to end lines
4. Exceptions \(\text{divby0.py}\)
   a. Division by zero
   b. How you handle it
5. Third example: chaos program, version 1 \(\text{chaos1.py}\)
   a. Comments
   b. Function \texttt{input()} gets input as a string from user
   c. Function \texttt{float()} converts data to a floating point number
   d. Assignment to variable; evaluate right hand side first
   e. For loop in detail
      i. Built-in \texttt{range()} function
      ii. Index variable \texttt{i} initialized to 0
      iii. Loops
      iv. Expression using multiplication, subtraction, and variables
   f. Behavior with initial values of 0.25 and 0.26
6. Fourth example: chaos program, version 2, error handling \(\text{chaos2.py}\)
   a. What if the user types in a non-number?
   b. What if the user types in a bad number?