
Outline for April 1, 2009

Reading: text, §1.6–1.9

1. Administration
 - a. Show python website and textbook on Google Book Search
 - b. Mention HW1 has been released
 - c. Demonstrate Smartsite submission
 - d. Separate HW1 submission into separate files
2. IDLE
 - a. What is it and what to use it for
 - b. How to start/open a new window
 - c. Explain shell and “>>>” marks
3. First program: Hello, World
 - a. Explain printing
 - b. Demonstrate program in shell and as source code file
4. Second program: print “2 + 2 =”, 2 + 2
 - a. Quotes denote text rather than numbers (values)
 - b. Comma automatically adds a space and stays on the same line
5. Other print statements
 - a. Dividing by 0
6. Chaos program, line by line
 - a. Comments
 - b. Function definition
 - c. Tab indenting to denote being part of function definition
 - d. Function *input()* gets values from user
 - e. Assignment to variable; evaluate right hand side first
 - f. For loop in detail
 - i. Built-in *range()* function
 - ii. Index variable *i* initialized to 0
 - iii. Loops
 - iv. Expression using multiplication, subtraction, and variables
 - g. Behavior with initial values of 0.25 and 0.26
7. Chaotic phenomena
 - a. Unpredictability: no simple formula for 1000th value; it must be computed
 - b. Sensitivity to initial parameters
 - c. Dependent on *k*-value (here, initially 3.9)