Outline for April 10, 2014

Reading: *text*, §3   **Assignment due:** April 17, 2014

1. `import` statement
   a. `import math` [*hypotnoex1.py*]
   b. Need the "math." before "sqrt"
   c. `from math import sqrt` [*hypotnoex.py*]
   d. Do not need the "math." before "sqrt"
2. Turtle graphics
   a. What turtle is; `import turtle`
3. Drawing a figure: a box with a hat [*tbox.py*]
   a. Set up the window to draw in: `Screen()`
   b. Create the turtle: `Turtle`
   c. Cursor for drawing
   d. Move cursor forward: `forward`, `backward()`
   e. Turn cursor: `left()`, `right()`
   f. Wait for the window to close: `mainloop()`
4. Titles, background, and such [*tfancybox.py*]
   a. Window
      i. Color of the window background: `background()`
      ii. Title of the window: `title`
   b. Turtle, more properly called "pen"
      i. Shape of the turtle: `shape()`
      ii. Speed of the drawing: `speed()`
      iii. Color of the drawn line: `color()`
      iv. Thickness of the line (pixels): `pensize()`
      v. Hide the turtle: `hideturtle()`
5. Plotting points and graphing
   a. Drawing lines: `penup()`, `pendown()`
   b. Move turtle: `setpos()`
   c. Write text: `write()`
   d. Draw a dot at the current position: `dot()` [*tchaosdots.py*]
   e. Draw a line from the current position to another: `goto()` [*tchaosline.py*]
6. Functions [*hello.py*]
   a. What functions are
   b. Defining them
   c. Using them
7. Quick look at using them [*quad.py*]
   a. Passing values to functions
   b. Returning values from functions
8. The *right* way to do quad.py [*quad-c.py*]