Outline for October 4, 2021

Reading: §5.4, 6.11
Handout: "Printing"

Assignments: Homework 1, due October 6, 2021

1. Output [*printing.py*]
   (a) Printing without format
   (b) Printing with format using `%`
   (c) Printing with format using *format* method
2. `continue` and `break` statements in loops [*loop1.py*]
3. `import` statement
   (a) `import math` [*hypotnoex.py*]
   (b) Need the "math." before "sqrt"
   (c) `from math import sqrt` [*hypotnoex1.py*]
   (d) Do not need the "math." before "sqrt"
   (e) Now add in exception handling [*hypotex.py*]
4. Full version of the hypotenuse program [*pythag1.py*]
5. Exception `ValueError` — built-in function or operation applied to operator with illegal value
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. In more detail: passing values to functions [*args.py*]
   (a) Formal parameters in subject definition
   (b) Actual parameters (arguments)
   (c) Matching arguments to formal parameters
   (d) Local variables
9. In more detail: how Python does function calls [*quad.py*]
   (a) Caller suspends execution at point of call, remembers where it left off
   (b) Formal parameters assigned values from actual parameters
   (c) Execute function body
   (d) Return control to where caller left off
10. Refactoring code
    (a) Compute the perimeter of a triangle [*peri0.py*]
    (b) Collapse similar statements: make the distance between 2 points a function [*peri1.py*]
    (c) Collapse similar statements: make the prompts a function [*peri2.py*]
    (d) Refactor for clarity only: make the perimeter computation a function [*peri3.py*]
    (e) Add error checking: "peri0.py" done right [*peri-c.py*]

11. Add error checking: “quad.py” done right [*quad-c.py*]