

Lecture 5: October 10, 2019

Reading: §2.10, 3.7, 6.11, 4

Assignments: Homework 1, due on October 10 at 11:59pm

1. Greetings and felicitations!
2. Functions [*hello.py*]
 - (a) What functions are
 - (b) Defining them
 - (c) Using them
3. Quick look at using them [*quad.py*]
 - (a) Passing values to functions
 - (b) Returning values from functions
4. 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
5. 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
6. 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*]
7. Add error checking: “quad.py” done right [*quad-c.py*]