Outline for November 5, 2020

**Reading:** §4, 9

**Assignments:** Homework 3, due November 13, 2020

1. Refactoring code *(continued)*
   (a) Collapse similar statements: make the distance between 2 points a function [*peri1.py*]
   (b) Collapse similar statements: make the prompts a function [*peri2.py*]
   (c) Refactor for clarity only: make the perimeter computation a function [*peri3.py*]
   (d) Add error checking: “peri0.py” done right [*peri-c.py*]

2. Dictionary
   (a) Collection of key-value pairs

3. Creating dictionaries
   (a) Using `d = {}`
   (b) Using `d = dict()`

4. Methods for dictionaries
   (a) `k in D`: True if dictionary `D` has key `k`; else False
   (b) `D.keys()`: list of keys in `D`
   (c) `D.values()`: list of values in `D`
   (d) `D.items()`: list of tuples (key, value) in `D`
   (e) `D.get(k, d)`: if key `k` in `D`, return associated value; else return `d`
   (f) `del D[k]`: delete tuple with key `k` from `D`
   (g) `D.clear()`: delete all entries in `D`

5. Sorting the dictionary
   (a) `sorted` sorts based on keys

6. Example: word frequency count
   (a) Unsorted [*wfc-1.py*]