Outline for May 13, 2014

Reading: text, §11, 18  Assignment due: Homework #3, due May 21, 2014

1. Program to compute some statistics [addup.py]
2. What you can do with lists
   a. Check membership: in, not in
   b. +: concatenation
   c. *: repetition
   d. list[a:b]: slice list from a to b – 1
   e. del list[i]: delete element list[i]; i can be a slice
3. Objects, references, aliasing
   a. For strings, one copy: assume a = "banana"
      i. After b = a or b = a[:], then a is b is True
   b. For lists, multiple copies: assume A = [ 1, 2, 3 ]
      i. After B = A, then A is B is True
      ii. After B = A[:], then A is B is False
4. enumerate(L) produces pairs (index, list element)
5. Lists as parameters: can change list elements in function and they are changed in caller [args2.py]
   a. Add elements to, remove elements: L.append(x), L.extend(ls), L.insert(i, x), L.pop(), L.remove(x)
   b. Element ordering: L.reverse(), L.sort()
   c. Other: L.count(x), L.index(x)
6. Tuples
   a. Used to group data
   b. Like lists, but immutable
7. Recursion
   a. n factorial [nfact.py]
   b. Fibonacci numbers [rfib.py]
   c. Sum of digits [sumdigits.py]