
Outline for February 12, 2018

1. Comments on homework: on the whole, quite good!
 - a. Make your program as simple as possible
 - b. Comments should *not* repeat the code, but explain at a higher level what is being done and why
 - c. Put a comment at the head of each function saying what the function does, what (if anything) it returns, and what its parameters mean
 - d. Indent your comments to be in line with the code to which it refers
2. Recursion
 - a. n factorial [*nfact.py*]
3. Thinking recursively [*recfun.py*]
 - a. First: think of the recursive case (write the problem in terms of something involving a smaller instance of the problem)
 - b. Next: think of base case (when to stop)
 - c. Example: Find the length of a string
 - d. Example: Does the string only have alphabetic characters in it?
 - e. Example: Find the maximum element of a list
 - f. Example: Construct a string from a list of strings
 - g. Example: Reverse a string
4. Recursion
 - a. Palindromes [*palindrome.py*]
 - b. Fibonacci numbers [*rfib.py*]
 - c. Sum of digits [*sumdigits.py*]
5. **isinstance** (*obj, type*) function
 - a. *type* is **bool, float, int, list, str, tuple**
 - b. Nested lists: is an item in a list? [*isinlist.py*]