

## Outline for May 20, 2014

**Reading:** *text*, §13, 18

**Assignment due:** Homework #3, due May 21, 2014

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1. Searching a list
  - a. Example use: linear search [*linsearch.py*]
  - b. Example use: recursive linear search [*rlinsearch.py*]
2. Tower of Hanoi [*hanoi.py*]
3. Files
  - a. What is a file?
  - b. What can you do with it? (For example, read, write, append)
  - c. Types of files (text, binary)
4. File Input and Output for text files
  - a. Opening and closing: `open(filename, mode)`, `close()`
  - b. Reading: `readline()`, `readlines()`, `read()`, `read(n)`
  - c. Writing: `write(str)`, `writelines(list)`
5. Examples
  - a. Print out a named file [*fileio1.py*]
  - b. Print out a named file and prepend line numbers [*fileio2.py*]
  - c. Store the output in *filename.lst* [*fileio3.py*]
6. Examples
  - a. Put lines in a file in random order [*randlines.py*]
  - b. Read in a list of words from a file, then search it as requested; similar to linear search program [*search-1.py*]
  - c. Now see how many words you checked total [*search-1c.py*]