CSCI 161 – Midterm Exam #1 Review

General Notes for Midterm Examination:
- **No** multiple-choice
- **No** fill-in-the-blank
- Short answer and coding questions
- Partial credit awarded
- Three pages

Material

Be Able to Define:
- computer science
- programming
- source code
- compiler
- program
- identifier
- keyword
- syntax
- comments
- algorithm
- data type
- parameter
- type casting
- input
- output

Programming Constructs
- Structure of an entire program (Filename and class name match, `main`, etc)
- Strings – make a string to output. Given an output, make a string. Escape sequence
- Methods – creating methods, calling methods, removing redundancy
- Variables – declaring, assigning, using
- Expressions – "drawing" trees, order of operations, int division/remainder
- Knowing when expressions and variables could result in an error
- For-loop – be able to write and understand for-loops
    - Printing (simplified drawings / patterns)
    - Shorthand expressions (++, +=, -=, *=, etc)
    - Nested loops (solving with tables and expressions)
- Parameters – adding parameters to a method to reduce redundancy
    - Declare and call methods properly
- Java `Math` module
- Return values – augment methods with return data
- String – representing text in a program
    - Concatenation, declaration, etc.