CSCI 162 – Test 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

Arrays
- Declare/Access/Out-of-Bounds
- length
- Limitations
- Multi-dimensional arrays

Objects and Classes
- What is an abstraction
- classes, constructors, fields, methods (mutator vs. access)
- shadowing (and the this keyword)
- static fields/methods vs member fields/methods
- value and reference semantics (primitives vs. non-primitives)
- .toString()
- .equals()
- .clone() and the Clonable interface – know for any type
- .compareTo(E other) and the Comparable<E> interface
- “diagram” classes and show what happens when we construct and/or clone

Software Engineering
- Definitions: data structures, algorithms
- 5 stages of Software Development
- Preconditions and Postconditions
- Contract
- Big-O notation and complexity

Collections
- ArrayList<E> (concept of, I will provide the interface)
- Generics and wrapper classes
- IntArrayBag