CSCI 162 – Test 1 Review

General Notes for Midterm Examination:
• No multiple-choice
• No/Few 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
• IntArrayMultiSet