CSCI 162 – Test 2 Review

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

Material
Generics
- Boxing vs. Unboxing
- Examples with Node<E>

Arrays vs. Linked Lists
- Complexity of operations
- Compare and Contrast (e.g. Sequence Array vs Sequence Linked List)

Abstract Data Types
- What is an abstract data type?
- Know example of one (e.g. List)
    - And how implementations can differ

Linked Lists
- Abstraction of a linked list and Node
- Insertion into a linked list
    - Before a location
    - After a location
    - At beginning
    - At end
- Removal from a linked list
    - Before a location
    - After a location
    - At beginning
    - At end
- Member fields representing state (what do we need)
- Methods representing behavior
- Able to draw pictures of linked lists
- Draw before/after operations **AND** write code for operations
- Big-O notation and complexity

Doubly-Linked Lists
- Advantages and disadvantages to normal Linked Lists
- Insertion routine
    - Difference between addBefore/addAfter?
- Remove routine