Important topics to review:

1. Although the test questions will not be specifically aimed at these topics, you will still need to know about the following in order to write and interpret the programs on the test:
   - Different data types
   - Input/Output
   - How to evaluate and write arithmetic expressions (operator precedence, etc.)
   - Arithmetic operators

2. Methods with parameters

3. Methods with return values

4. Using classes
   - Terms and definitions (class, object, instance, constructor, etc.)
   - Creating objects of various classes (Scanner, String, Random…)
   - Using the methods of various classes, especially the String, Random, and Math classes
   - Packages and using the classes they contain (import)

5. How to write and evaluate Boolean expressions (meaning, precedence)

6. For the following types of statements, be able to write them, be able to find errors in them and be able to interpret code that uses them
   - If statements
   - If/else statements
   - Nested ifs
   - While statements
   - Do-while statements

7. Algorithmic patterns
   - Fencepost problems
   - Dependent vs. independent ifs
   - Generating a series of numbers
   - Summation and counting
   - Reading in a series of numbers
     - Using a counting loop
     - Using a Sentinel-valued loop
   - Finding the largest or smallest value
   - Text processing
   - Manipulating integers digit-by-digit

8. Be sure that you understand the content of the programs that we’ve written in class, labs and homework assignments.

Study Tips:
The best source of practice is the problems in your book. Remember that the answers to the Self-Review questions are available online…follow the book site link from our course web page.

Form study groups if possible. Practice doing the problems from the back of the chapters individually, then compare your answers.

Practice writing and interpreting code segments. You need to do this under time pressure, so be sure that you feel comfortable doing these things.