CS 501 Midterm Review

1. The Java Environment
   a. The Java Virtual Machine
   b. The Java Compiler
   c. The Java API
   d. The import statement
   e. Method main
2. Data Types and Operators
   a. Primitive Data Types
      i. Variables
      ii. Constants
   b. Operators
   c. Postfix and prefix increment and decrement
   d. Type compatibility and conversion
   e. Creating and using objects from the Java API (String, Scanner, etc.)
3. Control Statements
   a. if … else
   b. switch
   c. while
   d. do … while
   e. for
4. Defining Your Own Classes
   a. Data fields
      i. public vs private
      ii. instance vs class
      iii. final
   b. Methods
      i. public vs private
      ii. instance vs class
   c. Constructors
   d. Getters and setters
   e. Variable lifecycle: local vs instance vs class
   f. Packages
   g. Use of this in a method
   h. Use of the dot operator