Java Programming

Midterm Review Topics

Short Answer/Definitions

InCalcOut2.java
1. primitive data types (int, float, double, char, byte, boolean)
2. instance variables
3. class variables
4. instance methods
5. class methods
6. wrapper classes and wrapper methods

Variables
1. scope

Logic Structures
1. if (then) else
2. switch

Looping Structures
1. while
2. do-while
3. for
1. foreach (special form of for loop) (Primz2prj, (Tunesprj)
4. )

Methods
1. access (private/public)
2. class or instance (static/nonstatic)
3. arguments
4. variable length arg list
5. main args via command line

Arrays/ArrayList
1. one dimensional array) (Primz2prj) (Tunesprj)
   a. initialization lists (primitives and Strings)
   b. accessing elements by position
2. two dimensional array (Sodaproj)
   a. initialization lists (primitives and Strings)
   b. accessing elements by position
   c. a set of one dimensional arrays, one for each row.
3. ArrayList and its methods (Beatlz2)
GUI Objects/Interfaces & Methods

JOptionPane - showInputDialog, showMessageDialog, showConfirmDialog
JFrame - getContentPane, setDefaultCloseOperation, setVisible
JPanel - add, setPreferredSize, addMouseListener, addMouseMotionListener, addKeyListener, setFocusable
JLabel - setFont
JRadioButton - addActionListener, setBackground
Button - addActionListener (Breakfast)
ButtonGroup - add
ActionListener - actionPerformed
ActionEvent - getSource
LayoutManager - BorderLayout, BoxLayout, FlowLayout, GridLayout (Layouts)
CheckBoxes - addItemListener, isSelected
ItemListener - itemStateChanged
ItemEvent - getItem
KeyListener - keyPressed
KeyEvent - getKeyCode
MouseListener - mousePressed
MouseMotionListener - mouseDragged
MouseEvent - getPoint
Point
ImageIcon
paintComponent
repaint

String class - Know this class well
1. Comparing String objects (equals/compareTo methods)
2. Formatting output with String.format (uses %d, %s, %f with field widths)
3. Using DecimalFormat and NumberFormat classes.

Timer - addActionListener (Rebound, DieRoll)

Defining Classes/Objects
1. instantiating objects with the new operator
2. Constructors
3. get methods/set methods
4. toString methods
5. equals/compareTo methods
6. helper methods
7. inner classes (listener class is a good example)