

Name: _____

Date: _____ Per: _____
AP Computer Science, Mr. Ferraro

List of Topics for APCS Quiz #4

What follows is a not-necessarily-all-inclusive list of topics with which you should be familiar in order to succeed on Quiz #4.

- Iterative methods involving `while()` and `for()`.
- The set of primitive data types: names & what kind of values each can hold.
- Java's order of operations for mathematical, relational, and logical operators
 - evaluating an expression as Java would, using its order of operations and using left-to-right tie-breaking
 - the modulo operator, `%`, and its rank in Java's order of operations
- Constants
 - *literal* vs. *symbolic* constants
 - symbolic constants using `final`, reasons for their use
- `int` and `double` operations
 - Operations on mixed operands and promotion of data types for resulting data type
 - Data type casting (e.g., `int` ↔ `double`)
 - Rounding off a double to the nearest tenth, hundredth, etc. using `Math.round()`
 - Obtaining a random integer value between 1 and n using `Math.random()`
 - Converting an `int` to a `String` by concatenating with the empty string, ""
- Variable scope
- Logical operators
 - the results of logical `&&` and `||` with different combinations of `true` and `false` operands
 - rewriting boolean expressions
 - * removing parentheses
 - * using DeMorgan's Rules (distributing negations)
 - short-circuit evaluation for logical operators `&&` and `||`
- Conditionals
 - How “`if()-else if-else`” works
 - How “`switch-case-break`” works
 - How to determine values depending on a set of conditions; Examples:
 - * determining one's pay based on regular and overtime hours worked
 - * determining whether a game has been won, lost, or otherwise based on a set of rules.