**AP Computer Science - Chapter 2 Skills Checklist**

* Variables - int, double
* Scanner Class - Getting input from console
* Naming Conventions/Rules (Identifiers)
* Constants – Declared with *final* keyword
* Mathematical Operators - addition, subtraction, multiplication, division and modulus (remainder, %)
* Order of Operations

1. Parentheses
2. Multiplication, Division, Remainder (%) - (Left to Right)
3. Addition, Subtraction (Left to Right)

* Math.pow and Math.sqrt
* Augmented Assignment Operators

|  |  |  |
| --- | --- | --- |
| Operator | Example | Equivalent |
| += | X += 3; | X = X + 3; |
| -= | Z -= 2; | z = z - 2; |
| \*= | a \*= b; | a = a \* b; |
| /= | i /=2; | i = i /2; |
| %= | x %=5; | x = x % 5; |

* Incrementing and Decrementing Operators - (**Assume that x is an integer variable with a starting value of 1**)
  1. x++; (x is incremented by 1) Thus, x = 2
  2. (x--) (x is decremented by 1)
* Number Type Conversion (AKA "Casting")

1. (double), (int)
2. Value or expression that follows is converted to that type
3. (Assuming int x;) x = (int) 3.14; (x = 3)
4. Int y = (int) (Math.sqrt(101)); y = 10;

* Character Data Type (char)

1. Uses single quotes char c = 'R';
2. ASCII Table (Corresponding int value)

* Escape Characters

1. Uses backslash and appears as part of a String (inside double quotes)
   1. \n - new line (equivalent to pressing <Enter> )
   2. \t - Tab (Used to align data into tables)
   3. \\ - Used to output a backslash
   4. \" - Used to output a double quote

* System.out.println and System.out.print

1. Used for output to console.
2. Println will end current line after output, print does not.
3. Uses the (+) character to append static text and variables.