Core Java - Exercises - Variables

Start Assignment

* **Due** No Due Date

* **Points** 100

* **Submitting** a website url or a file upload

Create a Java Project in Eclipse called CoreJavaBasics. In the src folder, make a package and name it com.perscholas.java\_basics. Create a class with a *main( )* method to run the following exercises (You may name the class whatever you like. Examples: *JavaBasicsClass, HomeClass, IndexClass, PracticeClass*, etc.).

* Write a program that declares 2 integer variables, assigns an integer to each, and adds them together. Assign the sum to a variable. Print out the result.

* Write a program that declares 2 double variables, assigns a number to each, and adds them together. Assign the sum to a variable. Print out the result.

* Write a program that declares an integer variable and a double variable, assigns numbers to each, and adds them together. Assign the sum to a variable. Print out the result. What variable type must the sum be?

* Write a program that declares 2 integer variables, assigns an integer to each, and divides the larger number by the smaller number. Assign the result to a variable. Print out the result. Now change the larger number to a decimal. What happens? What corrections are needed?

* Write a program that declares 2 double variables, assigns a number to each, and divides the larger by the smaller. Assign the result to a variable. Print out the result. Now, cast the result to an integer. Print out the result again.

* Write a program that declares 2 integer variables, x, and y, and assign 5 to x and 6 to y. Declare a variable q and assign y/x to it and print q. Now, cast y to a double and assign to q. Print q again.

* Write a program that declares a named constant and uses it in a calculation. Print the result.

* Write a program where you create 3 variables that represent products at a cafe. The products could be beverages like coffee, cappuccino, espresso, green tea, etc. Assign prices to each product. Create 2 more variables called subtotal and *totalSale* and complete an “order” for 3 items of the first product, 4 items of the second product, and 2 items of the third product. Add them all together to calculate the subtotal. Create a constant called SALES\_TAX and add sales tax to the subtotal to obtain the *totalSale* amount. Be sure to format the results to 2 decimal places.