CS 170 ch.2 Lab 1

# Task 1

Question: Students will write code related to the Soda Deal calculations from Ch. 2 (section 2.1 Variables in Zybooks). This program should include:

* declaration of   int
* at least one constant
* declaration of double
* assignment statements (calculating the total volume of soda in a 6 pack of cans (in liters), and the total volume of soda for a 6 pack of cans and a 2-liter bottle.
* print and println statements

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| *Copy and paste a screenshot of your source code here.* |

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| *Copy and paste a screenshot of your test results here.* |

# Task 2

Question: Students will write code representing the calculation of  6 mathematical equations of their choice. Each equation should represent one of the following methods from the Math Class (refer to table 6 (Table 2.4.2 in Zybooks))

* pow, abs, sqrt, min, max, round

**example for representing pow method:**

short x =9;

double result = x \* Math.pow(2,3);

System.out.println("the result of equaiton 1 is: " + result);

Note: You will need to declare all the variables needed for your equations. **YOU MUST** represent a variety of variable types (refer to table 4 on pg 42 Number Types)

1. Your code should demonstrate a variety of primitive data types. Instead of**int,**you should have 1 of each of the following: **short, byte, and long.**

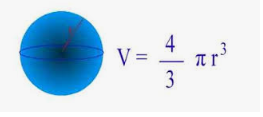
**2.**Your code should demonstrate a**float** (another way of representing a real number, instead of **double**)

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# Task 3

Question: Write a program that calculates the volume of a sphere when the radius is equal to 5  ( the answer should be 523.599). Your program should declare any needed variables and print the results in a user-friendly manner. Use good variable names rather than letters. You will also need to incorporate the Math.PI constant for its value.



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# Task 4

Question: Execute the following code that uses escape sequences:

public class Escape {

   public static void main(String[] args) {

      System.out.println("Backspace      : " + "ABCDE\bFGHIJ");

      System.out.println("Formfeed       : " + "ABCDE\fFGHIJ");

      System.out.println("Linefeed       : " + "ABCDE\nFGHIJ");

      System.out.println("Single Quote   : " + "ABCDE\'FGHIJ");

      System.out.println("Double Quote   : " + "ABCDE\"FGHIJ");

      System.out.println("Backslash      : " + "ABCDE\\FGHIJ");

      System.out.println("Horizontal Tab : " + "ABCDE\tFGHIJ");

      System.out.println("Carriage Return: " + "ABCDE\rFGHIJ");

   }

}

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