**Lab #2: Information and Math**

**Objective:** This lab is intended to allow you to practice using variables.

1. What data type would be appropriate to choose for a variable to store the amount of bread slices left in the bag?
2. What data type would be appropriate to choose for a variable to store the amount of money in a piggy bank?
3. What is the value assigned to the following variable?

weight = 13.6

1. What is the data type for the following variable?

distance = 11

1. What is the value stored in the **miles** variable after the following lines of code are executed?

miles = 100.0

miles = miles + 150.5

miles = 172.5 - 22.2

1. What is the value stored in the variable **b** after the following lines of code are executed?

a = 15

b = 2

b = a % b

1. What is the value stored in the **cost** variable after the following lines of code are executed?

cost = 19.99

wallet = 23.00

wallet = wallet - cost

1. What is the value stored in the **score** variable after the following lines of code are executed?

touchDowns = 3

extraPoints = 2

fieldGoals = 1

score = 6\*touchDowns + extraPoints + 3\*fieldGoals

1. What is wrong with the following variable declaration? Correct the variable declaration so that it is properly created.

miles traveled = 123.5

1. Create a variable named **slicesLeft**, to contain the amount of slices of pizza left after your siblings grab some. Use a reasonable initial value.
2. Create a variable named **cost**, to contain the cost of a large pizza. Use a reasonable initial value.

**\*Note:** For each of the following questions, you should actually write them in your IntelliJ in order to test them. Then, copy and paste your main method below each question. You can also take a screenshot of your program and paste the screenshot below.

1. Write a program in a main method that performs the following:

* Creates a variable to store the radius of a circle
* Calculate the circumference of the circle and store that in an appropriate variable
* Calculate the area of a circle and store that in an appropriate variable
* Print the circumference and area out to the screen

1. Write a program in a main method that performs the following:

* Create three variables to store some number of days, hours and minutes
* Calculates the total number of seconds contained in the days, hours, and minutes variables and stores that value in a new, appropriate variable
* Prints the number of seconds to the screen

1. Write a program inside of a main method that performs the following:

* Creates an integer variable called dividend
* Creates an integer variable called divisor
* Calculates the quotient and the remainder resulting from the dividend being divided by the divisor.
* Stores both the quotient and remainder in a variable.
* Prints both the quotient and remainder