CIS 2571: Introduction to Java
Lab Assignment

Name: _____

Lab Assignment	#1 – Intro to Java Programming (Using the Command Window)
Due Date *(end of class)*	01/29/2014

Points	Ch 1 Questions _____/ 10 pts.
	 Ch 2 Questions _____/ 6 pts.
	 Short Answer Questions _____/ 7 pts.
	 Feet2Meters Java Program
	     source code _____/ 8 pts.
	     output _____/ 2 pts.
	 GUIFeet2Meters Java Program
	     source code _____/ 12 pts.
	     output _____/ 5 pts.
	 Total _____**/ 50 pts.**

Lab Assignment #1 Activities

1. Answer the following questions from **Chapter 1** of your textbook. *(10 points)*

Question	Your Answer
What is the importance of the JVM? *(2 points)*	
What is the Java source filename extension?	
What is the Java bytecode filename extension?	
What is the statement to display the message "Hello World" on the console? *(2 points)*	
What is the Java statement to display the message "Hello World" in a GUI message dialog box? *(2 points)*	
What is the command to compile a Java program?	

What is the command to run a Java program?	

2. Answer the following questions from **Chapter 2** of your textbook. **Identify any needed import statements.** *(6 points)*

Question	Your Answer
What is (are) the Java statement(s) to prompt the user to enter an input using a GUI dialog box? *(4 points)*	
What is the Java statement to convert a string to an integer?	
What is the Java statement to convert a string to a double?	

3. Answer the questions in the spaces provided. **Identify any needed import statements.** *(7 points)*

Question	Your Answer
Identify the Java statements to properly create an input object connected to the console and read input data for a(n): *(5 points)* • integer of the **int** type • number of the **float** type • string of text ending with whitespace	
What is the Java statement used to cast a value of type **float** to an **int**?	
What is the Java keyword used to identify a **named constant**?	

4. On your own, create a Java program to solve the **Chapter 2 Programming
    Exercise 2.3** *(Converting feet into meters)* on page 75 of your textbook. **Use an
    approach that gets input from the console and displays output to the console.**

    a. Create the source code file, **Feet2Meters.java**. Add a block comment at the
        top of the file to identify your name, file, date, class, assignment, and short
        description of the program. *(8 points)*

```java
public class Feet2Meters {
    public static void main(String[] args) {
        // Enter foot
        java.util.Scanner input = new java.util.Scanner(System.in);
        System.out.print("Enter a value for feet: ");
        double feet =  input.nextDouble();
        double meter = feet * 0.305;
        System.out.println(feet + " feet is " + meter + " meters");
    }
}
```

    b. Compile the source code until no errors are found. The Java bytecode file
        Feet2Meters.class should be created.

        javac Feet2Meters.java

        *   Common Errors:
            http://www.cs.armstrong.edu/liang/intro9e/debug.html

        *   Setting the Environment Variable (See Section 1.3.1; our path is
            C:\Program Files\Java\jdk1.7.0_XX\bin):
            http://www.cs.armstrong.edu/liang/intro9e/supplement/Supplement1bInstallingJDK7.pdf

    c. Run the Java bytecode and observe the results.

        java Feet2Meters

    d. Attach a printout of your source code.

    e. Attach a printout of your sample output. *(2 points)*

        Copying a Window to the Clipboard for Pasting and Printing

        *   Point and click the mouse to an ***active window*** (window you want to
            capture)

        *   Press "*ALT + Prt SC*"

        *   Open "***WordPad***" (Start, All Program, Accessories, WordPad) or
            "**MS-Word**" (Start, All Program, Microsoft Office, Microsoft Word)

        *   Choose Edit, and click on *Paste*. (Now the window should appear on
            your document)

        *   Hit *<Return>* Key to go to new line.

        *   Save it into a file and print it out.

5. On your own, create a Java program to solve the **Chapter 2 Programming Exercise 2.3** *(Converting feet into meters)* on page 75 of your textbook. **Use an approach that gets input from a dialog box and displays output in a dialog box.**

   a. Create the source code file, **GUIFeet2Meters.java**. Add a block comment at the top of the file to identify your name, file, date, class, assignment, and short description of the program. *(12 points)*

   b. Compile the source code until no errors are found. The Java bytecode file **GUIFeet2Meters.class** should be created.

      javac GUIFeet2Meters.java

      - Common Errors: http://www.cs.armstrong.edu/liang/intro9e/debug.html

      - Setting the Environment Variable (See Section 1.3.1; our path is C:\Program Files\Java\jdk1.7.0_XX\bin): http://www.cs.armstrong.edu/liang/intro9e/supplement/Supplement1bInstallingJDK7.pdf

   c. Run the Java bytecode and observe the results.

      java GUIFeet2Meters

   d. Attach a printout of your source code.

   e. Attach a printout of your sample output. *(5 points)*

      Copying a Window to the Clipboard for Pasting and Printing

      - Point and click the mouse to an *active window* (window you want to capture)

      - Press "*ALT + Prt SC*"

      - Open "*WordPad*" (Start, All Program, Accessories, WordPad) or "**MS-Word**" (Start, All Program, Microsoft Office, Microsoft Word)

      - Choose Edit, and click on *Paste*. (Now the window should appear on your document)

      - Hit <*Return*> Key to go to new line.

      - Save it into a file and print it out.