R·I·T

ISTE-200 Java for Programmers

Homework 2 – Decision, Loops and Arrays
Due next week after class 3a, 11:59pm

Introduction:

The goal of this assignment is to design and write logic problems in Java. Pseudocode the problems to help you write it.

Part 1: Order the numbers (50%)

Write a program, named OrderNumbers.java, which will accept three numbers from the user into three separate variables, do not use an array in this program.

Using only if statements to determine which number is greater or less than another print the numbers out in numerical order.

For this problem create a set of test data and write a flowchart of the 'if' statements.

The flowchart can be hand written (preferred) and the test data can be on the flowchart page, or in a text file named testdata.txt.

Example output:
```
$ java OrderNumbers
Ordering 3 whole numbers, by <your name here>
Enter first number: 2
Enter second number: 3
Enter third number: 1
Ordered numbers are: 1, 2, 3
$
```

Part 2: Arrays – Standard Deviation

Write a program, Stdev.java, that allows the user to enter a count and then the user enters N number of values. The program will calculate the standard deviation of the numbers. You will need to calculate the average of the numbers, sum the differences and do other calculations. Remember to label the user's input and the output with informative information

$$\sigma = \sqrt{\frac{1}{N} \sum_{i=1}^{N} (x_i - \mu)^2}$$

Submitting Your Work:

Homework 2 to be submitted to MyCourses dropbox.
Zip the following four files into one .zip file: (only zip format is accepted)
- The source code (your .java files) **OrderNumbers.java** and **Stdev.java**
- The compiled file (your .class files) **OrderNumbers.class** and **Stdev.class**

Rename the zip file name with your name. (Example: Smith.zip)

Homework 2 – OrderNumbers & Factorial

Item	Points	Points Earned
OrderNumbers.java		
- Documentation		
Flowchart		
Test data (on flowchart paper or in file testdata.txt)		
- Visual output:		
1st line heading includes your name		
Prompts user for three numbers		
Output is labeled with the three numbers in order		
- Code:		
File header comments, according to coding standards		
Code is properly formatted and indented		
Variables names, according to coding standards		