CS 4120 Practice 0 Review

Comparable Interface

1. Create a Rectangle class that has an integer length variable and an integer width variable
2. Provide a constructor that allows length and width to be set
3. Create a getArea() method that returns the area of the rectangle
4. Override toString() to print a string representation of a Rectangle object
5. Have Rectangle class implement Comparable
6. Implement a compareTo() method for the Rectangle class
7. Make a main() method
8. Inside main(), make an array of a hundred random Rectangle objects
9. Call Arrays.sort() on the array
10. Print the array

1. Create a Name class that has a string instance variable called first and a string instance variable called last
2. Provide a constructor that allows first and last to be set
3. Provide public getters for both instance variables
4. Override toString() to print a string representation of a Name object
5. Have Name class implement Comparable
6. Implement compareTo() to compare by first name and then the last name
7. Make a main() method
8. Inside main(), make an array of several Name objects
9. Call Arrays.sort() on the array
10. Print the array

Static Methods and Non-Static Methods

1. Create a class called Boring
2. Give the class a single string variable called word
3. Create a non-static method called nonstaticPrint() that simply prints word
4. Create a static method called staticPrint() that takes a string as input and prints the string
    1. Why can't this method print the instance variable called word?
5. Make a class called TestMethods that has a main() method
6. Inside the main() method, use both nonstaticPrint() and staticPrint()
    1. What's the difference in using the two methods?
    2. What must be done before nonstaticPrint() can be used?