Instance & Class Members

- Accessor & Modifier methods are instance methods because they change the state of an object and must be called from an instance of a class (such as called from the Circle named spot)
- Class methods (declared with the keyword static) can be called from the class itself

```
Add this class method to the Circle class:
                                                And call it from client code like this:
                                                public class TestCircle {
 * Displays the formula for the area of a
                                                    public static void main(String[] args) {
 * circle
                                                       Circle spot = new Circle(5);
 * pre: none
  post: The formula for area of a circle
                                                       System.out.println("Circle radius:" +
  has been displayed
                                                spot.getRadius());
                                                       System.out.println("Circle area:" +
public static void displayAreaFormula() {
                                                spot.area());
                                                       Circle.displayAreaFormula();
  System.out.println("The formula for the
area of a circle is a = pi*r*r");
                                                }
```

Output:

```
Circle radius: 5,0
Circle area: 78,5
The formula for the area of a circle is a=Pi*r*r
```

Programming Exercise:

- a) Modify the Circle class to include a class method named displayAreaFormula, as shown in the previous section. Modify existing client code to test the new method
- b) Modify the Rectangle class to include a class method named displayAreaFormula. Modify existing client code to test the new method.

Do not submit your code for either part a or part b just yet.