

Circle.java

```
1  /**
2   * The Circle class models a circle with a radius and color
3   */
4  public class Circle { // Save as "Circle.java"
5      // private instance variable, not accessible from outside this class
6      private double radius;
7      private String color;
8
9      // Constructors (overloaded)
10     /** Constructs a Circle instance with default value for radius and color */
11     public Circle() { // 1st (default) constructor
12         this.radius = 1.0;
13         this.color = "red";
14     }
15
16     /** Constructs a Circle instance with the given radius and default color */
17     public Circle(double radius) { // 2nd constructor
18         this.radius = radius;
19         this.color = "red";
20     }
21
22     /** Returns the radius */
23     public double getRadius() {
24         return this.radius;
25     }
26
27     /** Returns the area of a circle instance */
28     public double getArea() {
29         return Math.PI*Math.pow(radius, 2);
30     }
31
32     /** Return a self-descriptive string of this instance in the form of
33     Circle[radius=?,color=?] */
34     public String toString() {
35         return "Circle[radius = " + radius + " color = " + color + "];"
36     }
37 }
38
```