1. Fill in some code for Rectangle class, following guidelines given through comments.

```java
public class Rectangle {
    // instance variables
    private int width;
    private int height;
    private boolean visible; // true=visible; false=hidden

    // constructor
    public Rectangle(int x, int y, boolean z) {
        width = x;
        height = y;
        visible = z;
    }

    // getWidth(): Returns the width of the rectangle
    public int getWidth() {
        return width;
    }

    // sizeUp(): increases width and height to twice original size
    // (no parameters)
    public void sizeUp() {
        width = width * 2;
        height = height * 2;
    }

    // hide(): change visible to make the Rectangle hidden
    public void hide() {
        visible = false;
    }
}
```

2) Write client code that uses the Rectangle class:

a) Instantiate a visible Rectangle object `rect1` of width 10 and height 25.

```java
Rectangle rect1 = new Rectangle(10, 24, true);
```

b) Suppose you have two a Rectangle objects `rect1` and `rect2`. Write some code to print the sum of their widths

```java
System.out.println(rect1.getWidth() + rect2.getWidth());
```
Quiz 6 11/18  Name: ___________________________ ___/20

1. Fill in some code for a Circle class, following guidelines given through comments.
public class Circle
{
    // instance variables
    private double xPosition;
    private double yPosition;
    private double radius;

    // constructor
    public Circle(double x, double y, double z)
    {
        xPosition = x;
        yPosition = y;
        radius = z;
    }

    // Another constructor – no parameters, 
    // instantiates a circle of radius 1 positioned at (0,0) 
    public Circle()
    {
        xPosition = 0;
        yPosition = 0;
        radius = 1;
    }

    // move(): Move the circle to position (x,y) given by parameters 
    public void move(double x, double y)
    {
        xPosition = x;
        yPosition = y;
    }

    // toString(): Returns an appropriate string describing the Circle 
    // eg: “Circle of radius 7.302 at {0.34, -4.2222)”
    public String toString()
    {
        String message = “Circle of radius “ + radius + “ at ({ “ + xPosition + “, “ + yPosition + “});
        return message;
    }
}

2) Write client code that uses the Circle class:
a) Instantiate a Circle object with radius 7.302 at {0.34, -4.2222} and assign to a variable circ1. 
   Circle circ1 = new Circle(0.34, -4.2222, 7.302);
b) Instantiate a Circle object with radius 1 at {0, 0} and assign to a variable circ2. (Use 2nd constructor.) 
   Circle circ1 = new Circle(0.34, -4.2222, 7.302);
c) Move circ2 to position {0.34, -4.2222}, i.e., same as circ1 so now one circle will be inside the other. 
   circ2.move(034, -4.2222);