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, 25, true);
   ```

b) Suppose you have two 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 circ2 = new Circle();
   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(0.34, -4.2222);