

Lecture/Workshop (Week 6)

```
public class Circle
{
    private double radius;

    public Circle(double theRadius)
    {
        radius = theRadius;
    }

    public void displayRadius()
    {
        System.out.println("Radius: " + radius);
    }

    public void displayDiameter()
    {
        double diameter = 2 * radius;
        System.out.println("Diameter: " + diameter);
    }

    public void displayPerimeter()
    {
        double perimeter = 2 * Math.PI * radius;
        System.out.println("Perimeter: " + perimeter);
    }

    public void displayArea()
    {
        double area = Math.PI * radius * radius;
        System.out.println("Area: " + area);
    }

    public void displayAll()
    {
        displayRadius();
        displayDiameter();
        displayPerimeter();
        displayArea();
    }
}
```

// This would be in a different file, you can't have 2 public classes .java file.

```
public class CircleTester
{
    public static void main(String[] args)
    {
        Circle myCircle = new Circle(12.0);
        myCircle.displayRadius();
        myCircle.displayDiameter();
        myCircle.displayPerimeter();
        myCircle.displayArea();

        System.out.println();
        myCircle.displayAll();
    }
}
```

// Output

Radius: 12.0
Diameter: 24.0
Perimeter: 75.39822368615503
Area: 452.3893421169302

Radius: 12.0
Diameter: 24.0
Perimeter: 75.39822368615503
Area: 452.3893421169302