

```
import java.io.*;
/**
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 * @teacher     Coglianese
 * @version     2-27-18
 * @period      2
 *
 * Driver06 creates objects that test the four concrete shape classes
 */
public class Driver06
{
    /**
     * Tests Circle, Rectangle, Square, and Triangle, outputting to file
     *
     * @param  args    Jar params, ignore
     */
    public static void main(String[] args) throws Exception
    {
        System.setOut(new PrintStream(new FileOutputStream("output.txt")));

        //create the objects
        Circle c = new Circle(75);
        Rectangle r = new Rectangle(30.0, 40.);
        Square s = new Square(50.0);
        Triangle t = new Triangle(37);

        //test the instance methods
        System.out.println("Circle");
        System.out.println("-----");
        System.out.println("Radius: " + c.getRadius());
        System.out.println("Area: " + c.findArea());
        System.out.println("Circumference: " + c.findCircumference());
        System.out.println();

        System.out.println("Rectangle");
        System.out.println("-----");
        System.out.println("Length: " + r.getBase());
        System.out.println("Height: " + r.getHeight());
        System.out.println("Area: " + r.findArea());
        System.out.println("Perimeter: " + r.findPerimeter());
        System.out.println("Diagonal: " + r.findDiagonal());
        System.out.println();

        System.out.println("Square");
        System.out.println("-----");
        System.out.println("Side: " + s.getSide());
        System.out.println("Length: " + s.getBase());
        System.out.println("Height: " + s.getHeight());
    }
}
```

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        System.out.println("Area: " + s.findArea());
        System.out.println("Perimeter: " + s.findPerimeter());
        System.out.println("Diagonal: " + s.findDiagonal());
        System.out.println();
        s.setSide(10.0);
        System.out.println("New Square");
        System.out.println("-----");
        System.out.println("Side: " + s.getSide());
        System.out.println("Length: " + s.getBase());
        System.out.println("Height: " + s.getHeight());
        System.out.println("Area: " + s.findArea());
        System.out.println("Perimeter: " + s.findPerimeter());
        System.out.println("Diagonal: " + s.findDiagonal());
        System.out.println();

        System.out.println("Triangle");
        System.out.println("-----");
        System.out.println("Side: " + t.getSide());
        System.out.println("Perimeter: " + t.findPerimeter());
        System.out.println();
        t.setSide(10.0);
        System.out.println("New Triangle");
        System.out.println("-----");
        System.out.println("Side: " + t.getSide());
        System.out.println("Perimeter: " + t.findPerimeter());
    }
}
```