```java
package GeometricObject;

import java.utik.Scanner;

abstract class GeometircObject {
    private String color = "white";
    private boolean filled = false;
    public void GeometricObject() {
        return ;
    }
    public void GeometricObject String color, boolean filled) {
        this.color = color;
        this.filled = filled;
    }
    public String getColor() {
        return color;
    }
    public void setColor String color) {
        this.color = color;
    }
    public boolean getFilled() {
        return filled;
    }
    public void setFilled boolean filled) {
        this.filled = filled;
    }
    public abstract double getArea();
    public abstract double getPerimeter();
    public abstract double getVolume();
    public abstract double getsupArea();
}
public class Circle extends GeometircObject{
    private double radius;
    public Circle() {
        this.radius = 0;
    }

    public Circle(double radius) {
        this.radius = radius;
    }

    public Circle(double radius, String color, boolean filled) {
        super();
        this.radius = radius;
    }

    public double getRedius() {
        return radius;
    }

    public void setRadius(double radius) {
        this.radius = radius;
    }

    public double getDiameter() {
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        return 2 * radius;
    }

    public double getArea() {
        return Math.PI * Math.pow(radius, 2);
    }

    public double getPerimeter() {
        return Math.PI * radius *2;
    }

    public double getVolume() {
        return 0;
    }

    public double getsupArea() {
        return 0;
    }
}
public class Triangle extends GeometircObject {
    private double side1 = 0;
    private double side2 = 0;
    private double side3 = 0;
    public Triangle() {
        this.side1 = 0;
        this.side2 = 0;
        this.side3 = 0;
    }
    public Triangle(String color, boolean filled, double side1, double side2,
double side3) {
        super();
        this.side1 = side1;
        this.side2 = side2;
        this.side3 = side3;
    }
    public double getSide1() {
        return side1;
    }
    public void setSide1(double side1) {
        this.side1 = side1;
    }
    public double getSide2() {
        return side2;
    }
    public void setSide2(double side2) {
        this.side2 = side2;
    }
    public double getSide3() {
        return side3;
    }
    public void setSide3(double side3) {
        this.side3 = side3;
    }
    public double getArea() {
        double s = (side1 + side2 + side3) / 2;
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        return Math.sqrt(s* (s- side1) * (s - side2) * (s - side3));
    }
    public double getPerimeter() {
        return side1 + side2 + side3;
    }

    public double getVolume() {
        return 0;
    }
    public double getsupArea() {
        return 0;
    }
}
public class Rectangle extends GeometircObject {
    private double width = 3.0;
    private double height = 4.0;
    public Rectangle() {
        this.width = 0;
        this.height = 0;
    }
    public Rectangle(double width, double height, String color, boolean
filled) {
        super();
        this.width = width;
        this.height = height;
    }
    public double getWidth() {
        return width;
    }
    public void setWidth(double width) {
        this.width = width;
    }
    public double getHeight() {
        return height;
    }
    public void setHeight(double height) {
        this.height = height;
    }
    public double getArea() {
        return width * height;
    }
    public double getPerimeter() {
        return 2 * (width + height);
    }

    public double getVolume() {
        return 0;
    }

    public double getsupArea() {
        return 0;
    }
}
public class Column extends GeometircObject{
    private double radius;
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    private double height;
    public Column() {
        this.radius = 0;
        this.height = 0;
    }

    public Column(double radius, double height) {
        this.radius = radius;
        this.height = height;
    }

    public Column(double radius, double height, String color, boolean filled)
{
        super();
        this.radius = radius;
        this.height = height;
    }

    public double getRedius() {
        return radius;
    }

    public void setRadius(double radius) {
        this.radius = radius;
    }

    public double getHeight() {
        return height;
    }

    public void setHeight(double height) {
        this.height = height;
    }

    public double getVolume() {
        return Math.PI * Math.pow(radius, 2) * height;
    }

    public double getsupArea() {
        return (2 * (Math.PI * Math.pow(radius, 2)) + Math.PI * radius * 2 *
height);
    }

    public double getArea() {
        return 0;
    }

    public double getPerimeter() {
        return 0;
    }
}
public class TestAbstract {
    public void display(GeometircObject gb) {
        System.out.println("      周长为: " + gb.getPerimeter());
        System.out.println("      面积为: " + gb.getArea());
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        System.out.println("      颜色为: " + gb.getColor());
        System.out.println("      是否填充: " + gb.getFilled());
    }

    public void display2(GeometircObject hh) {
        System.out.println("      周长为: " + hh.getVolume());
        System.out.println("      面积为: " + hh.getsupArea());
        System.out.println("      颜色为: " + hh.getColor());
        System.out.println("      是否填充: " + hh.getFilled());
    }

    public static void main String[] args) {
        @SuppressWarnings("resource")
        Scanner input = new Scanner System.in);
        Triangle t = new Triangle();
        System.out.println("请分别输入三角形的三条边、颜色、是否填充: ");
        t.setSide1(input.nextDouble());
        t.setSide2(input.nextDouble());
        t.setSide3(input.nextDouble());
        t.setColor(input.next());
        t.setFilled(input.nextBoolean());
        while (t.getSide1() + t.getSide2() <= t.getSide3() || (t.getSide1() +
t.getSide3() <= t.getSide2()
                ||(t.getSide2() + t.getSide3() <= t.getSide1()) {
            System.out.println("三角形边长输入错误, 请重新输入! " + '\n' + "请分别
输入三角形的三条边: ");
            t.setSide1(input.nextDouble());
            t.setSide2(input.nextDouble());
            t.setSide3(input.nextDouble());
        }
        Rectangle e = new Rectangle();
        System.out.println("请分别输入矩形的边长、颜色、是否填充: ");
        e.setWidth(input.nextDouble());
        e.setHeight(input.nextDouble());
        e.setColor(input.next());
        e.setFilled(input.nextBoolean());

        Circle r = new Circle();
        System.out.println("请分别输入圆形的半径、颜色、是否填充: ");
        r.setRadius(input.nextDouble());
        r.setColor(input.next());
        r.setFilled(input.nextBoolean());

        Column c = new Column();
        System.out.println("请分别输入圆柱的半径、高、颜色、是否填充: ");
        c.setRadius(input.nextDouble());
        c.setHeight(input.nextDouble());
        c.setColor(input.next());
        c.setFilled(input.nextBoolean());

        System.out.println('\n' + "三角形的信息: ");
        TestAbstract tr = new TestAbstract();
        tr.display(t);
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        System.out.println('\n' + "矩形的信息: ");
        TestAbstract re = new TestAbstract();
        re.display(e);
        System.out.println('\n' + "圆形的信息: ");
        TestAbstract rr = new TestAbstract();
        rr.display(r);
        System.out.println('\n' + "圆柱的信息: ");
        TestAbstract co = new TestAbstract();
        co.display2(c);

    }
}
```