

```
import java.util.Date;

public abstract class GeometricObject {
    private String color;
    private boolean filled;
    private Date dateCreated = new Date();
    protected GeometricObject() {
    }
    protected GeometricObject(String color,boolean filled) {
        this.color= color;
        this.filled = filled;
    }

    public String getColor() {
        return this.color;
    }

    public void setColor(String color) {
        this.color = color;
    }

    public boolean isFilled() {
        return this.filled;
    }
    public void setFilled(boolean filled) {
        this.filled = filled;
    }

    public Date getDateCreated() {
        return this.dateCreated;
    }

    public static void displayObject(Object object){
        if (object instanceof Triangle triangle) {
            System.out.println("side 1 : "+triangle.getS1());
            System.out.println("side 2 : "+triangle.getS2());
            System.out.println("side 3 : "+triangle.getS3());
            System.out.println("Area : " + triangle.getArea());
            System.out.println("Perimeter : " + triangle.getPerimeter());
        }
        else if (object instanceof Rectangle rectangle) {
            System.out.println("Width : "+rectangle.getWidth());
            System.out.println("Height : "+rectangle.getHeight());
            System.out.println("Area : " + rectangle.getArea());
            System.out.println("Perimeter : " + rectangle.getPerimeter());
        }
    }
}
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    }
    else if (object instanceof Circle circle) {
        System.out.println("Area : " + circle.getArea());
        System.out.println("Perimeter : " + circle.getPerimeter());
        System.out.println("Diameter : " + circle.getDiameter());
    }
    else{
        System.out.println("Bruhhhh!! : invalid object");
    }
}

@Override
public String toString() {
    return "[" +
        " color: " + getColor() +
        ", filled: " + isFilled() +
        ", dateCreated: " + getDateCreated() +
        "]";
}

public abstract double getArea();
public abstract double getPerimeter();
}
```