

```
import java.awt.*;
import java.io.Serializable;

public class Planet implements Serializable
{
    public static final long serialVersionUID = -388170342876888144L;
    double radius;
    double x, y;

    public Planet(double radius, double x, double y)
    {
        this.x = x;
        this.y = y;
        this.radius = radius;
    }

    public boolean contains(Planet other)
    {
        return Math.sqrt((other.x-x)*(other.x-x) + (other.y-y)*(other.y-y)) <=
            Math.max(radius, other.radius);
    }

    public double getMass()
    {
        return (4.0/3.0)*radius*radius*radius*Math.PI;
    }

    public void draw(Graphics g)
    {
        g.setColor(Color.BLACK);
        g.fillOval((int)(x-radius+.5), (int)(y-radius+.5), (int)(radius*2+.5),
            (int)(radius*2+.5));
    }
}
```