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public class Point {
    private double x;
    private double y;
    public Point(double x, double y) {
        this.x = x;
        this.y = y;
    }
    public double getX() { return x; }
    public double getY() { return y; }
    public void setX(double x) { this.x = x; }
    public void setY(double y) { this.y = y; }
}

public class Circle {
    private Point o;
    private double radius;
    public Circle(Point p, double r) {
        o = p;
        radius = r;
    }
    public Circle(double r) {
        o = new Point(0.0, 0.0);
        radius = r;
    }
    public boolean contains(Point p) {
        double x = p.getX() - o.getX(); // x distance
        double y = p.getY() - o.getY(); // y distance
        if(x * x + y * y > radius * radius)
            return false;
        else
            return true;
    }
    public void setO(double x, double y) {
        o.setX(x);
        o.setY(y);
    }
    public Point getO() { return o; }
    public double getRadius() { return radius; }
    public void setRadius(double r) { radius = r; }
    public double area() {
        return Math.PI * radius * radius;
    }
}

public class TestCircle {
    public static void main(String args[]) {
        Circle c1 = new Circle(new Point(1.0, 2.0), 3.0);
        Circle c2 = new Circle(4.0);
        System.out.println("c1: (" + c1.getO().getX() + ", "
            + c1.getO().getY() + "), " + c1.getRadius());
        System.out.println("c2: (" + c2.getO().getX() + ", "
            + c2.getO().getY() + "), " + c2.getRadius());
        System.out.println("c1 area = " + c1.area());
        System.out.println("c2 area = " + c2.area());
        c1.setO(5.0, 6.0);
        c2.setRadius(7.0);
        System.out.println("c1: (" + c1.getO().getX() + ", "
            + c1.getO().getY() + "), " + c1.getRadius());
        System.out.println("c2: (" + c2.getO().getX() + ", "
            + c2.getO().getY() + "), " + c2.getRadius());
        System.out.println("c1 area = " + c1.area());
        System.out.println("c2 area = " + c2.area());

        Point p1 = new Point(6.0, 7.0);
        System.out.println(c1.contains(p1));
        System.out.println(c1.contains(new Point(10.0, 11.0)));
    }
}

```