Consider the Point and Circle class interactions provided on Reference Sheet.

1. Write method called move(..) in the Point class that will move the point by dx in the x direction and 
dy in the y direction.

2. Write method called move(..) in Circle class that moves the Circle’s center.

3. Write another constructor in the Circle class that takes in three parameters as shown.

4. Write method liesWithin(..) in the Circle class that will return true if the input Point lies within or 
on the circle, otherwise returns false. Hint: Distance between Circle’s center and input Point can be 
determined by Pythagorean theorem.
Reference Sheet - Point and Circle Class

public class Point {
    private int x;
    private int y;

    public Point(int x, int y) {
        this.x = x;
        this.y = y;
    }

    public int getX(){ return x; }
    public int getY(){ return y; }
}

public class Circle{
    private Point center;
    private int r;

    public Circle(Point p, int r){
        center = p;
        this.r = r;
    }

    public Point getCenter(){ return center;}
    public int getRadius(){ return r;}
}
The code for question 3 should have the behavior as shown in the statements below.

//Question 3a
Point p = new Point(4, 5);
p.move(1, 2);
System.out.println(p.getX());
Answer: 5
System.out.println(p.getY())
Answer: 7

//Question 3b
Circle c1 = new Circle(p, 5); //p declared from Question 3a
c1.move(2, 2);
System.out.println(c1.getCenter().getX());
Answer: 7
System.out.println(c1.getCenter().getY());
Answer: 9

//Question 3c
Circle c2 = new Circle(2, 3, 10);
System.out.println(c2.getCenter().getX());
Answer: 2
System.out.println(c2.getRadius());
Answer: 10
//Question 3d
Circle c = new Circle(5, 5, 5);
System.out.println(c.liesWithin(new Point(2, 8))); // Answer: true
System.out.println(c.liesWithin(new Point(9, 6))); // Answer: true
System.out.println(c.liesWithin(new Point(8, 12))); // Answer: false

Diagram below is provided as an illustration.