# Test of Point.intersect(Point) Case 1: Point p1 = new Point(1, 1); Point p2 = new Point(1, 1); **Expected Result: True** Code Result: True Test Result: Pass Case 2: Point p1 = new Point(0, 0); Point p2 = new Point(5, 4); **Expected Result: False** Code Result: False Test Result: Pass Test of Point.intersect(LineSeg) Case 1: Point p1 = new Point(1, 2); LineSeg I1 = new LineSeg(new Point(0, 1), new Point(3, 4)); **Expected Result: True** Code Result: True Test Result: Pass Case 2: Point p1 = new Point(4, 5); LineSeg I1 = new LineSeg(new Point(1, 0), new Point(3, 0)); **Expected Result: False** Code Result: False Test Result: Pass Case 3: Point p1 = new Point(0, 1); LineSeg I1 = new LineSeg(new Point(0, 1), new Point(3, 4)); **Expected Result: True** Code Result: True Test Result: Pass Test of Point.intersect(Circle) Case 1: Point p1 = new Point(1, 1); Circle c1 = new Circle(new Point(0, 0), 5f);**Expected Result: True** Code Result: True Test Result: Pass

Case 2:

Point p1 = new Point(10, 1);

Circle c1 = new Circle(new Point(0, 0), 5f);

Expected Result: False
Code Result: False
Test Result: Pass



Point p1 = new Point(0, 5);

Circle c1 = new Circle(new Point(0, 0), 5f);

Expected Result: True
Code Result: True
Test Result: Pass



Case 1:

Point p1 = new Point(2, 2);

Rectangle c1 = new Rectangle(1, 3, 3, 1);

Expected Result: True
Code Result: True
Test Result: Pass

Case 2:

Point p1 = new Point(2, 6);

Rectangle c1 = new Rectangle(1, 3, 3, 1);

Expected Result: False Code Result: False Test Result: Pass

Case 3:

Point p1 = new Point(1, 3);

Rectangle c1 = new Rectangle(1, 3, 3, 1);

Expected Result: True
Code Result: True
Test Result: Pass

#### Test of LineSeg.intersect(Point)

Case 1:

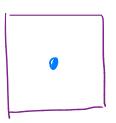
LineSeg I1 = new LineSeg(new Point(0, 1), new Point(3, 4));

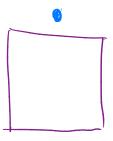
Point p1 = new Point(1, 2);

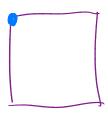
Expected Result: True Code Result: True Test Result: Pass













Case 2:

LineSeg I1 = new LineSeg(new Point(1, 0), new Point(3, 0));

Point p1 = new Point(4, 5);

Expected Result: False Code Result: False Test Result: Pass

Case 3:

LineSeg I1 = new LineSeg(new Point(0, 1), new Point(3, 4));

Point p1 = new Point(0, 1);

Expected Result: True
Code Result: True
Test Result: Pass



Case 1:

LineSeg I1 = new LineSeg(new Point(0, 0), new Point(3, 3));

LineSeg I2 = new LineSeg(new Point(0, 3), new Point(3, 0));

Expected Result: True Code Result: True Test Result: Pass

Case 2:

LineSeg I1 = new LineSeg(new Point(0, 0), new Point(3, 3));

LineSeg I2 = new LineSeg(new Point(0, 3), new Point(-3, 0));

Expected Result: False Code Result: False Test Result: Pass

Case 3:

LineSeg I1 = new LineSeg(new Point(0, 3), new Point(3, 3));

LineSeg I2 = new LineSeg(new Point(0, 3), new Point(3, 3));

Expected Result: True
Code Result: True
Test Result: Pass

#### Test of LineSeg.intersect(Circle)

Case 1:

LineSeg I1 = new LineSeg(new Point(-3, 0), new Point(3, 0));

Circle c1 = new Circle(new Point(0, 0), 2f));

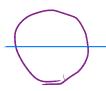
Expected Result: True
Code Result: True
Test Result: Pass









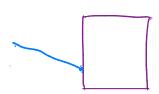


Case 2: LineSeg I1 = new LineSeg(new Point(-3, 0), new Point(3, 0)); Circle c1 = new Circle(new Point(0, 0), 8f)); Expected Result: True Code Result: True Test Result: Pass	
Case 3: LineSeg I1 = new LineSeg(new Point(-3, 10), new Point(3, 10)); Circle c1 = new Circle(new Point(0, 0), 8f)); Expected Result: False Code Result: False Test Result: Pass	
Case 4: LineSeg I1 = new LineSeg(new Point(-3, 0), new Point(3, 0)); Circle c1 = new Circle(new Point(0, -2), 2f)); Expected Result: True Code Result: False Test Result: Fail	
Test of LineSeg.intersect(Rectangle) Case 1: LineSeg I1 = new LineSeg(new Point(-3, 1), new Point(3, 1)); Rectangle r1 = new Rectangle(0, 2, 2, -1); Expected Result: True Code Result: True Test Result: Pass	
Case 2: LineSeg I1 = new LineSeg(new Point(-3, 1), new Point(3, 1)); Rectangle r1 = new Rectangle(-4, 4, 2, -1); Expected Result: True Code Result: True Test Result: Pass	
Case 3: LineSeg I1 = new LineSeg(new Point(-3, 3), new Point(3, 3)); Rectangle r1 = new Rectangle(-4, 4, 2, -1); Expected Result: False Code Result: False Test Result: Pass	
Case 4:	

LineSeg I1 = new LineSeg(new Point(-3, 1), new Point(0, 0));

Rectangle r1 = new Rectangle(0, 2, 2, -1);

Expected Result: False Code Result: True Test Result: Fail



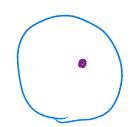
#### Test of Circle.intersect(Point)

Case 1:

Circle c1 = new Circle(new Point(0, 0), 5f);

Point p1 = new Point(1, 1); Expected Result: True Code Result: True

Test Result: Pass



Case 2:

Circle c1 = new Circle(new Point(0, 0), 5f);

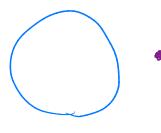
Point p1 = new Point(10, 1); Expected Result: False Code Result: False Test Result: Pass

Case 3:

Circle c1 = new Circle(new Point(0, 0), 5f);

Point p1 = new Point(0, 5); Expected Result: True Code Result: True

Test Result: Pass



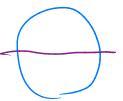
## Test of Circle.intersect(LineSeg)

Case 1:

Circle c1 = new Circle(new Point(0, 0), 2f));

LineSeg I1 = new LineSeg(new Point(-3, 0), new Point(3, 0));

Expected Result: True Code Result: True Test Result: Pass



Case 2:

Circle c1 = new Circle(new Point(0, 0), 8f));

LineSeg I1 = new LineSeg(new Point(-3, 0), new Point(3, 0));

Expected Result: True Code Result: True Test Result: Pass

Case 3:

Circle c1 = new Circle(new Point(0, 0), 8f));

LineSeg I1 = new LineSeg(new Point(-3, 10), new Point(3, 10));

Expected Result: False Code Result: False Test Result: Pass



Circle c1 = new Circle(new Point(0, -2), 2f));

LineSeg I1 = new LineSeg(new Point(-3, 0), new Point(3, 0));

Expected Result: True Code Result: False Test Result: Fail



Case 1:

Circle c1 = new Circle(new Point(-1, 0), 3f));

Circle c2 = new Circle(new Point(\*, 0), \*f)); Expected Result: True 1 2

Code Result: True Test Result: Pass

Case 2:

Circle c1 = new Circle(new Point(-1, 0), 3f));

Circle c2 = new Circle(new Point(4, 0), 1f));

Expected Result: False Code Result: False Test Result: Pass

Case 3:

Circle c1 = new Circle(new Point(-2, 0), 2f));

Circle c2 = new Circle(new Point(2, 0), 2f));

Expected Result: False Code Result: False Test Result: Pass

Case 4:

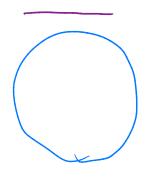
Circle c1 = new Circle(new Point(0, 0), 3f));

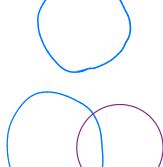
Circle c2 = new Circle(new Point(0, 0), 1f));

Expected Result: True Code Result: True Test Result: Pass

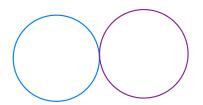
#### Test of Circle.intersect(Rectangle)

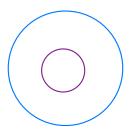
Case 1:









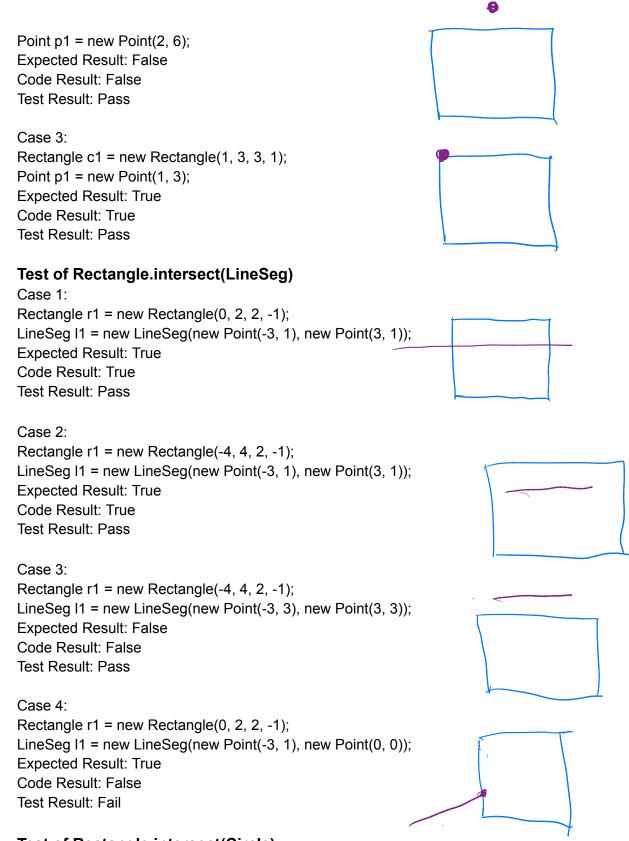


Circle c1 = new Circle(new Point(0, 0), 1f)); Rectangle r1 = new Rectangle(-3, 3, 3, -3); **Expected Result: True** Code Result: True Test Result: Pass Case 2: Circle c1 = new Circle(new Point(0, 0), 20f)); Rectangle r1 = new Rectangle(-3, 3, 3, -3);**Expected Result: True** Code Result: True Test Result: Pass Case 3: Circle c1 = new Circle(new Point(-4, 0), 3f)); Rectangle r1 = new Rectangle(-3, 3, 3, -3);**Expected Result: True** Code Result: True Test Result: Pass Case 4: Circle c1 = new Circle(new Point(-7, 0), 3f)); Rectangle r1 = new Rectangle(-3, 3, 3, -3); **Expected Result: False** Code Result: False Test Result: Pass Case 5: Circle c1 = new Circle(new Point(-3, 0), 3f)); Rectangle r1 = new Rectangle(0, 3, 3, -3);**Expected Result: False** Code Result: False Test Result: Pass Test of Rectangle.intersect(Point) Case 1: Rectangle c1 = new Rectangle(1, 3, 3, 1);Point p1 = new Point(2, 2); **Expected Result: True** 

Case 2:

Code Result: True Test Result: Pass

Rectangle c1 = new Rectangle(1, 3, 3, 1);



### Test of Rectangle.intersect(Circle)

Case 1:

Rectangle r1 = new Rectangle(-3, 3, 3, -3);

Circle c1 = new Circle(new Point(0, 0), 1f)); **Expected Result: True** Code Result: True Test Result: Pass Case 2: Rectangle r1 = new Rectangle(-3, 3, 3, -3);Circle c1 = new Circle(new Point(0, 0), 20f)); **Expected Result: True** Code Result: True Test Result: Pass Case 3: Rectangle r1 = new Rectangle(-3, 3, 3, -3);Circle c1 = new Circle(new Point(-4, 0), 3f)); Expected Result: True Code Result: True Test Result: Pass Case 4: Rectangle r1 = new Rectangle(-3, 3, 3, -3);Circle c1 = new Circle(new Point(-7, 0), 3f)); **Expected Result: False** Code Result: False Test Result: Pass Case 5: Rectangle r1 = new Rectangle(0, 3, 3, -3);Circle c1 = new Circle(new Point(-3, 0), 3f)); **Expected Result: False** Code Result: False Test Result: Pass Test of Rectangle.intersect(Rectangle) Case 1: Rectangle r1 = new Rectangle(-3, 3, 5, -5);Rectangle r2 = new Rectangle(-8, 0, 3, 1);**Expected Result: True** Code Result: True Test Result: Pass

Case 2:

Rectangle r1 = new Rectangle(-3, 3, 5, -5); Rectangle r2 = new Rectangle(-3, 3, 5, -5);

Expected Result: True Code Result: True Test Result: Pass	
Case 3: Rectangle r1 = new Rectangle(-3, 3, 5, -5); Rectangle r2 = new Rectangle(-2, 2, 6, 4); Expected Result: True Code Result: True Test Result: Pass	
Case 4:  Rectangle r1 = new Rectangle(-5, -4, 5, 4);  Rectangle r2 = new Rectangle(4, 5, 3, 2);  Expected Result: False  Code Result: False  Test Result: Pass	
Case 5: Rectangle r1 = new Rectangle(-3, 3, 5, -5); Rectangle r2 = new Rectangle(-1, 1, 1, -1); Expected Result: True Code Result: True Test Result: Pass	
Case 6: Rectangle r1 = new Rectangle(-3, 3, 5, -5); Rectangle r2 = new Rectangle(3, 4, 5, -5); Expected Result: False Code Result: True Test Result: Fail	