

Chapter 4 Programming Quiz

Thursday, September 24, 2015 7:34 AM

```
public class Critter {
    private int x;
    private int y;

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

    public void moveUp() {
        y++;
    }

    public void moveDown() {
        y--;
    }

    public void moveRight() {
        x++;
    }

    public void moveLeft() {
        x--;
    }

    public int getCoordinates() {
        return "(" + String.valueOf(x) + "," + String.valueOf(y) + ")";
    }

    public int getDistance() {
        int distance = Math.sqrt((Math.pow(x,2) - Math.pow(y,2)));

        return distance;
    }
}
```

```
public class CritterTester {
    public static void main(String [] args) {
        Critter crit1 = new Critter(2,-5);

        crit1.moveUp();
        crit1.moveUp();
        crit1.moveLeft();
        crit1.moveDown();
    }
}
```

```
crit1.moveRight();
crit1.moveLeft();
crit1.moveUp();
crit1.moveUp();
crit1.moveLeft();
crit1.moveDown();

System.out.println(crit1.getCoordinates());
System.out.println(crit1.getDistance());
    }
}
```