Our Solution(s) Run Code

Solution 1 Solution 2 Solution 3

```java
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import java.util.*;

class Program {
  // O(n^2) time | O(n) space - where n is the number of coordinates
  public static int rectangleMania(Point[] coords) {
    Set<String> coordsTable = getCoordsTable(coords);
    return getRectangleCount(coords, coordsTable);
  }

  public static Set<String> getCoordsTable(Point[] coords) {
    Set<String> coordsTable = new HashSet<String>();
    for (Point coord : coords) {
      String coordString = coordToString(coord);
      coordsTable.add(coordString);
    }
    return coordsTable;
  }

  public static int getRectangleCount(Point[] coords, Set<String> coor
    int rectangleCount = 0;
    for (Point coord1 : coords) {
      for (Point coord2 : coords) {
        if (!isInUpperRight(coord1, coord2)) continue;
        String upperCoordString = coordToString(new Point(coord1.x, co
        String rightCoordString = coordToString(new Point(coord2.x, co
        if (coordsTable.contains(upperCoordString) && coordsTable.cont
          rectangleCount++;
      }
    }
    return rectangleCount;
  }
```

Your Solutions Run Code

Solution 1 Solution 2 Solution 3

```java
class Program {
  public static int rectangleMania(Point[] coords) {
    // Write your code here.
    return -1;
  }

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

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

```

Our Tests

Custom Output Submit Code

```
            new Program.Point(3, 1),
            new Program.Point(3, 0)
        };
    this.assertTrue(Program.rectangleOfMatrix(coords) == 1);
  }

  @Test
  public void testCase2() {
    Program.Point[] coords =
        new Program.Point[] {
          new Program.Point(0, 0),
          new Program.Point(0, 1),
          new Program.Point(1, 1),
          new Program.Point(1, 0),
          new Program.Point(2, 1),
```

Run or submit code when you're ready.