

Our Solution(s)

Run Code

Your Solutions

Run Code

Solution 1

Solution 2

Solution 3

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 // O(n^2) time | O(n) space - where n is the number of coordinates
4 function rectangleMania(coords) {
5   const coordsTable = getCoordsTable(coords);
6   return getRectangleCount(coords, coordsTable);
7 }
8
9 function getCoordsTable(coords) {
10  const coordsTable = {x: {}, y: {}};
11  for (const coord of coords) {
12    const [x, y] = coord;
13    coordsTable.x[x] = coordsTable.x[x] || [];
14    coordsTable.x[x].push(coord);
15    coordsTable.y[y] = coordsTable.y[y] || [];
16    coordsTable.y[y].push(coord);
17  }
18  return coordsTable;
19 }
20
21 function getRectangleCount(coords, coordsTable) {
22  let rectangleCount = 0;
23  for (const coord of coords) {
24    const lowerLeftY = coord[1];
25    rectangleCount += clockwiseCountRectangles(coord, coordsTable, UP,
26  }
27  return rectangleCount;
28 }
29
30 function clockwiseCountRectangles(coord1, coordsTable, direction, lowe
31 const [x1, y1] = coord1;
32 if (direction === DOWN) {
33   const relevantCoords = coordsTable.x[x1];
```

```
1 function rectangleMania(coords) {
2   // Write your code here.
3 }
4
5 // Do not edit the line below.
6 exports.rectangleMania = rectangleMania;
7
```

Our Tests

Custom Output

Submit Code

```
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4 function rectangleMania(coords) {
5   const coordsTable = getCoordsTable(coords);
6   return getRectangleCount(coords, coordsTable);
7 }
8
9 function getCoordsTable(coords) {
10  const coordsTable = {x: {}, y: {}};
11  for (const coord of coords) {
12    const [x, y] = coord;
13    coordsTable.x[x] = coordsTable.x[x] || [];
14    coordsTable.x[x].push(coord);
15    coordsTable.y[y] = coordsTable.y[y] || [];
16    coordsTable.y[y].push(coord);
17  }
18  return coordsTable;
19 }
20
21 function getRectangleCount(coords, coordsTable) {
22  let rectangleCount = 0;
23  for (const coord of coords) {
24    const lowerLeftY = coord[1];
25    rectangleCount += clockwiseCountRectangles(coord, coordsTable, UP,
26  }
27  return rectangleCount;
28 }
29
30 function clockwiseCountRectangles(coord1, coordsTable, direction, lowe
31 const [x1, y1] = coord1;
32 if (direction === DOWN) {
33   const relevantCoords = coordsTable.x[x1];
```

