Category: Hard

Competition: CSI KJSCE Code Wars 2017-18. Try it in the competition environment:

<https://www.hackerrank.com/contests/codewars2-round1/challenges/forest-survey>

This question was solved by only 2 participants in the 24hr competition. The question is not difficult to code rather it is complicated to find the solution. The question involves out of the box thinking and use of properties that are not at all evident from the statement. This made it more difficult for the question to be attempted.

Concepts Tested:

1. Knowledge and application of the Euler’s formula of polygons (v – e + r = 2) was needed.
2. The formula when used directly doesn’t give the right answer hence it needs to be augmented for the case of multiple polygons on the same plane
3. Set or graph data structure is needed to store the polygons that are intersecting so knowledge about them is needed
4. The code is really simple but coming up with it isn’t that easy. The test cases provided, show many cases which debunk most of the incorrect algorithms
5. Imagining planar figures and basic geometry knowledge is an obvious necessity