

IMRaD style

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Abstract

This report consists of the explanation for four different problems in the project for our group.

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Short summarization: How many regions can n lines create, assuming that there is no parallel nor concurrency.

Proposed solution: With the given condition, any new drawn line must cross all existing ones at n points. That means the line must also cross n regions enclosed by a given number of lines since they are all lined up.

Equation found: Let a be the number of regions created by n lines. We know that:

$$a_n = a_{n-1} + n + 1, \quad n > 1, \quad n \in \mathbb{Z}$$

Solving by Mathematica gives us:

4 Discussion

References