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#four colors suffice #map problem solution #graph theory #coloring theorem #mathematical proof history

Explore the fascinating history and groundbreaking resolution of the famous map coloring problem in 'Four Colors Suffice: How The Map Problem Was Solved, Revised Color Edition.' This essential volume from the Princeton Science Library delves into the elegant mathematical proof behind the four color theorem, explaining how this long-standing challenge in graph theory was finally conquered, offering profound insights into a pivotal moment in mathematics.

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Theorem. The **Four**,-**Color**, theorem states that every **map**, can be **colored**, ...
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Valid vs Not Valid
How Did This All Start
Defining a Map
Maps as Networks
The Goal
Discharging
Reducibility
Reductions
The Result
Criticism
New Proof
Logistics
Conclusion
References
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Introduction
The 4 colour map theorem
Proof by contradiction
Reducible configurations
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Map #03
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Any Map
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Five Regions
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Graph Problems
planar graph
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Operator structures Polymorphism for values!
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Notation abuse
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Claude Shannon and the invention of transistors
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Algorithms and their limits
Discovery of different classes of computational problems
Polynomial P problems explained
Exponential NP Problems explained
Implications if P = NP

Discovery of NP Complete problems
Knapsack Problem and Traveling Salesman problem
Boolean Satisfiability Problem (SAT) defined
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Graph Coloring Problem
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