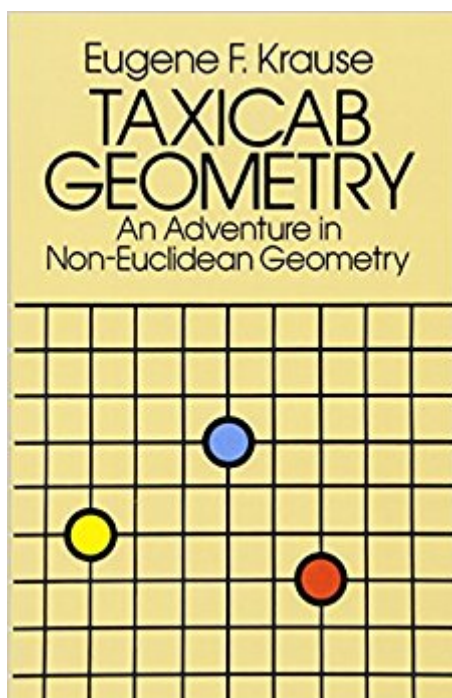The book was found

Taxicab Geometry: An Adventure In Non-Euclidean Geometry (Dover Books On Mathematics)

Synopsis

This entertaining, stimulating textbook offers anyone familiar with Euclidean geometry Ã¢â ¬â • undergraduate math students, advanced high school students, and puzzle fans of any age Ã¢â ¬â • an opportunity to explore taxicab geometry, a simple, non-Euclidean system that helps put Euclidean geometry in sharper perspective.In taxicab geometry, the shortest distance between two points is not a straight line. Distance is not measured as the crow flies, but as a taxicab travels the "grid" of the city street, from block to block, vertically and horizontally, until the destination is reached. Because of this non-Euclidean method of measuring distance, some familiar geometric figures are transmitted: for example, circles become squares.However, taxicab geometry has important practical applications. As Professor Krause points out, "While Euclidean geometry appears to be a good model of the 'natural' world, taxicab geometry is a better model of the artificial urban world that man has built."As a result, the book is replete with practical applications of this non-Euclidean system to urban geometry and urban planning Ã¢â ¬â • from deciding the optimum location for a factory or a phone booth, to determining the most efficient routes for a mass transit system.The underlying emphasis throughout this unique, challenging textbook is on how mathematicians think, and how they apply an apparently theoretical system to the solution of real-world problems.

Book Information

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Customer Reviews

An interesting and very thought provoking introduction to one type of non-Euclidean geometry. This book is suitable for anyone who already knows the Pythagorean Theorem as it uses a variation for the basis of the calculations needed to complete the exercises in the book. It is very easy to read and understand the concepts. Some of the answers to the end of chapter questions are included. The chapters are short and the material is logically presented. Also, it is an interesting book for math lovers who would like to expand their mathematical understanding of how everyday travel works instead of using as the crow flies estimates.

A curious and different look at graph theory based on grids. Ideas presented by the author will not be seen in the usual math texts. Writing is clear, direct, and not extensive (on purpose); as stated the author wants us to explore the concepts.Not trying the exercises will limit a clear development and progress within the topic. Good for those interested in puzzles, problem solving, or math. Not a PhD exposition, but more on the lines of Martin Gardner specific to one topic.Recommended for those that like math -thinking, and exploring; and really kind of fun once you get the graph paper out.

The book is only $6.00 and it describes a non-euclidean geometry - it's hard to go wrong! This is really more of a workshop book - the math that's in it is pretty darn simple, yet, it encourages a certain mathematical exploration. So, if you're getting burned out on Calculus and the other heavy stuff, pick this gem up (Did I mention it's only $6.00?) and do what the original mathematicians did: Play with math.My only problem with the book, is that some of the chapters could use some more detail - on the other hand, it does encourage the reader to think a bit more deeply about what's being presented.

A challenging mind-tweaker, so deceptively simple in concept and as commonplace in its application as traveling our city streets. When did you last delve into a non-Euclidean world with contradictory feelings of familiarity and astonishment? Me--never! Short chapters put a concept to work that you explore through exercises. Get some graph paper and discover Ideal City and its geometry of square circles and area-lines. Accessible for those of any age who have a moderate interest in things geometric.

I learned briefly about the existence of taxicab geometry in a college math class, but I had never considered the implications for various geometrical structures or for other mathematical definitions. I

can't wait to explore this math further myself.

Diego Lame is very right. It is a very light book, not for a serious reader. It is more about Eucledean geometry than for taxicab one. I wish to see the inside, than I wouldn't probably buy it. It is not what I need.

Great exploration in logical thinking. A fun book that adds a twist to our class's study of Euclidean geometry.

Superbly written; well-selected questions encourage student discovery of interesting ideas.

Taxicab Geometry: An Adventure in Non-Euclidean Geometry (Dover Books on Mathematics) Foundations of Euclidean and non-Euclidean geometry Euclidean and Non-Euclidean Geometry: An Analytic Approach Non-Euclidean Geometry (Dover Books on Mathematics) Introduction to Non-Euclidean Geometry (Dover Books on Mathematics) Euclidean and Non-Euclidean Geometries: Development and History Euclidean and Non-Euclidean Geometries Ideas of Space: Euclidean, non-Euclidean, and Relativistic Non-Euclidean Geometry in the Theory of Automorphic Functions (History of Mathematics) Euclidean Geometry and Transformations (Dover Books on Mathematics) Non-Euclidean Geometry for Babies (Math for Babies) Non-Euclidean Geometry (Mathematical Association of America Textbooks) Modern Geometries: Non-Euclidean, Projective, and Discrete Geometry (2nd Edition) Janos Bolyai, Non-Euclidean Geometry, and the Nature of Space The elements of non-Euclidean geometry Adventure Guide Nicaragua (Adventure Guides Series) (Adventure Guides Series) (Adventure Guides Series) (Adventure Guide to Nicaragua) Non-Euclidean Adventures on the LÃƒÂ©nÃƒÂ¡rt Sphere The Non-Euclidean Revolution (Modern BirkhÃƒÂ¤user Classics) The Non-Euclidean Revolution Fractal Geometry and Dynamical Systems in Pure and Applied Mathematics I: Fractals in Pure Mathematics (Contemporary Mathematics)