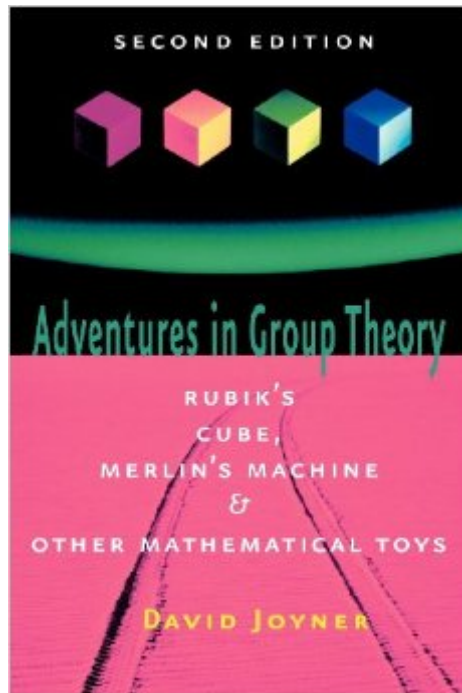


The book was found

Adventures In Group Theory: Rubik's Cube, Merlin's Machine, And Other Mathematical Toys



Synopsis

This updated and revised edition of David Joyner's entertaining "hands-on" tour of group theory and abstract algebra brings life, levity, and practicality to the topics through mathematical toys. Joyner uses permutation puzzles such as the Rubik's Cube and its variants, the 15 puzzle, the Rainbow Masterball, Merlin's Machine, the Pyraminx, and the Skewb to explain the basics of introductory algebra and group theory. Subjects covered include the Cayley graphs, symmetries, isomorphisms, wreath products, free groups, and finite fields of group theory, as well as algebraic matrices, combinatorics, and permutations. Featuring strategies for solving the puzzles and computations illustrated using the SAGE open-source computer algebra system, the second edition of *Adventures in Group Theory* is perfect for mathematics enthusiasts and for use as a supplementary textbook.

Book Information

Paperback: 328 pages

Publisher: Johns Hopkins University Press; 2nd edition (December 1, 2008)

Language: English

ISBN-10: 0801890136

ISBN-13: 978-0801890130

Product Dimensions: 6 x 0.7 x 9 inches

Shipping Weight: 15.2 ounces (View shipping rates and policies)

Average Customer Review: 3.3 out of 5 stars [See all reviews](#) (3 customer reviews)

Best Sellers Rank: #1,041,818 in Books (See Top 100 in Books) #149 in [Books > Science & Math > Mathematics > Pure Mathematics > Group Theory](#) #333 in [Books > Humor & Entertainment > Puzzles & Games > Math Games](#)

Customer Reviews

I can't figure out who the intended audience is for this book. It's not a textbook; the subject is not developed in a systematic manner, nor are there useful problems sets. The reader exercises, referred to as 'Ponderables' in the book, can be extremely challenging and off-topic, beginning with the chess problems in the first chapter. It's also too technical to be a popularization, although it seems to be targeted as such. I was looking for friendly introduction to group theory, and the core concepts are there. However, a focus on the Rubik's cube and other similar games as primary examples of groups introduces a lot of complexity. The book is written in an entertaining fashion with many historical references, quotes, puns and quips. I often found them to be a distraction. The

SAGE programming code provides quite a few examples but it is often not decipherable to a reader unfamiliar with this relatively obscure language based on Python; a little explanation would have gone a long way. Frequently terminology and notation are used before they are defined. Apparently this second edition cleaned up some errors, but there are still a number of typos and statements which are simply wrong. Theorems are stated imprecisely, and the proofs in the book are often hand-waving exercises rather than actual proofs. Important results are presented without justification or the proof left to the reader. I don't intend to imply there is no value here. Parts of the book provide a relatively accessible introduction to group theory, but the reading experience can be very frustrating.

Good for learning Group Theory terminology, extremely confusing at best to know how to apply it, especially to solving the Rubik's Cube, which the author is both fascinated by and teases with a promise to understand the solution to many puzzles, especially to the 3 x 3 Rubik's cube, but it very poorly delivers. The book gives no practical way of a non-mathematician to understand how any of this leads anywhere for any of the games mentioned, it simply seems that it shows how to describe math games in terms of group theory, without any ramifications as to what this is good for!

This book is good, mathematical point of view, connections between rubic cube and other similar puzzles with the group theory, the seller is fine, I can recommend it.

[Download to continue reading...](#)

Rubik's Cube Secret Rubik's Cube Solution Guide, Beginner's Method of Solving the Rubik's Cube
Adventures in Group Theory: Rubik's Cube, Merlin's Machine, and Other Mathematical Toys My
Merlin Awakening (My Merlin Series Book 2) Bread Machine Cookbook: 101 Delicious, Nutritious,
Low Budget, Mouthwatering Bread Machine Cookbook: Best Bread Machine Bread Recipe Recipes
for Perfect-Every-Time Bread-From Every Kind of Machine British Diecast Model Toys Catalogue:
Dinky Toys and Matchbox Toys v. 1 Toys & Prices: The World's Best Toys Price Guide (Toys and
Prices) Bread Machine Cooking - The Ultimate Guide to Bread Machine Bread Baking: Over 24
Bread Machine Recipes You Will Love! Metodo de solucion del cubo de Rubik (Spanish Edition)
Resolver el cubo de Rubik con confianza (Spanish Edition) American Tin-Litho Toys: Including Ohio
Art, Wolverine, Marx, Chein and More- A Collectors Guide to Identification, Pricing and History of
American Tin-Lithographed Toys Steiff: Teddy Bears, Dolls, and Toys With Prices, A parade of
cuddly animals, dolls, and toys from Steiff the famous maker of the Teddy Bear Arduino LED Cube
Projects Speedsolving the Cube: Easy-to-Follow, Step-by-Step Instructions for Many Popular 3-D

Puzzles Cube Book: Gatos (Spanish Edition) Alien Romance Box Set: Alien Cube: The Sci-Fi Alien Invasion Romance (Books 1-5) The Collector's Encyclopedia of Metal Toys: A Pictorial Guide to Over 2,500 Examples of Tinsplate and Diecast Toys Dating from 1850 to the Present Day British Diecast Model Toys Catalogue: Corgi Toys and Classics, Lledo, E.F.E.Budgie, Spot-on Plus Many Others v. 2 Toys & Prices (Toys and Prices) Matchbox Toys 1948 to 1993/Identification and Value Guide (Matchbox Toys: Identification & Value Guide) Timeless Toys: Classic Toys and the Playmakers Who Created Them

[Dmca](#)