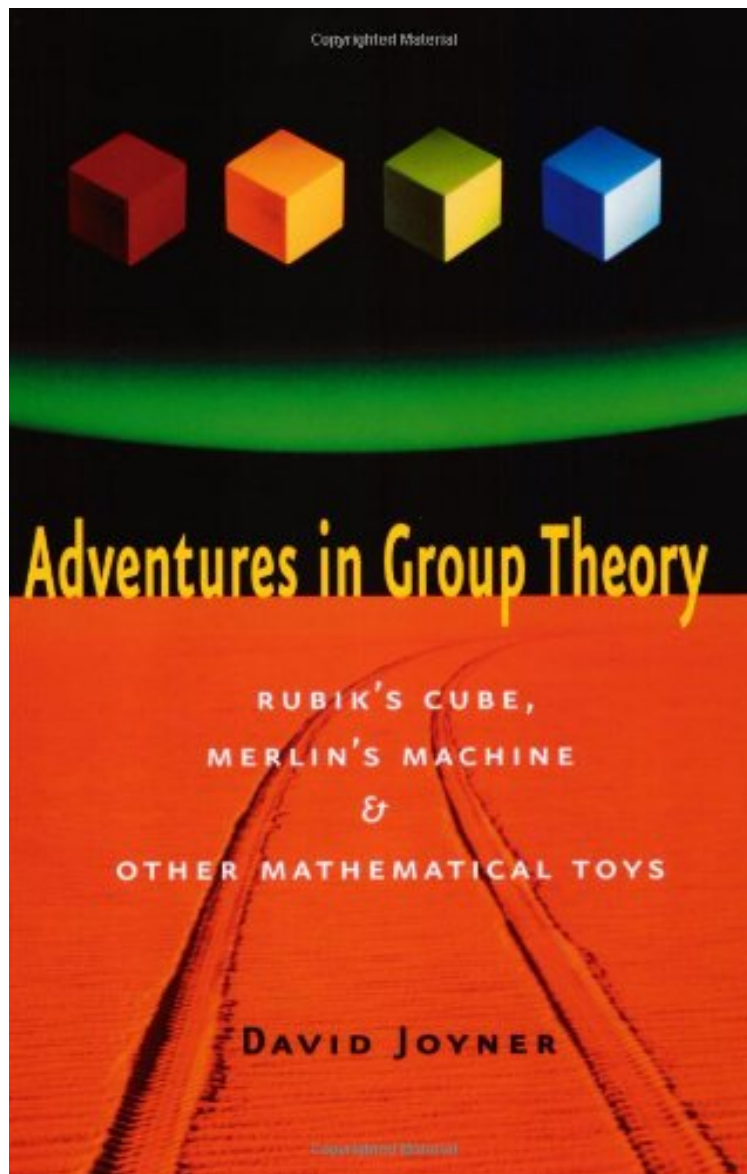


(Download free ebook) Adventures in Group Theory: Rubik's Cube, Merlin's Machine, and Other Mathematical Toys

Adventures in Group Theory: Rubik's Cube, Merlin's Machine, and Other Mathematical Toys

David Joyner

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David Joyner : Adventures in Group Theory: Rubik's Cube, Merlin's Machine, and Other Mathematical Toys before purchasing it in order to gage whether or not it would be worth my time, and all praised Adventures in Group Theory: Rubik's Cube, Merlin's Machine, and Other Mathematical Toys:

37 of 40 people found the following review helpful. Riddled with errors, but ---By Bobby R. TreatI have never seen so many typos, omissions, and errors in a published book. Many of the examples are poorly introduced, theorems are mentioned that don't exist in the book, etc. Other than Rubik's cube, most of the other puzzles are presented in a completely incomprehensible manner. It's very annoying, in a book that's otherwise just what I want. It does give a good quick and dirty intro to the group theory needed, however.10 of 50 people found the following review helpful. Why bother fixing typos?By CrankyI was thinking of buying this book, but when I read that it is riddled with typos, I declined. Perhaps publishers will get the message that not doing proper editing results in lost sales.

Group theory deals with symmetry, in the most abstract form possible. It is a core part of the undergraduate math curriculum, and forms part of the training of theoretical physicists and chemical crystallographers. Group theory has tended to be very dry until now. David Joyner uses mathematical toys (primarily the Rubik's Cube and its more modern cousins, the Megaminx, the Pyraminx, and so on) as well as other mathematical examples (e.g., bell ringing) to breathe new life into a time-honored subject. "Why," asks the author, "should two such different topics, mechanical puzzles and abstract group theory, be related? This book takes the reader on an intellectual trip to answer this curiosity." *Adventures in Group Theory* will not only appeal to all math enthusiasts and interested general readers but will also find use in the classroom as a wonderful supplementary text in any abstract algebra or group theory course.

Adventures in Group Theory is a tour through the algebra of several 'permutation puzzles'... If you like puzzles, this is a somewhat fun book. If you like algebra, this is a fun book. If you like puzzles and algebra, this is a really fun book. (Donald L. Vestal MAA Online) Joyner has collated all the Rubik lore and integrated it with a self-contained introduction to group theory that equals or, more likely, exceeds what is available in typical dedicated elementary texts. (Choice) The book begins with some lecture notes of discrete mathematics and group theory. These theoretical notions are very nicely applied to some practical problems, e.g.: Rubik's cube, Rubik-like puzzle groups, crossing the rubicon, God's algorithm and graphs. The work ends with a rich bibliography and index. (Cristinel Mortici Zentralblatt Math) Joyner does convey some of the excitement and adventure in picking up knowledge of group theory by trying to understand Rubik's Cube. Enthusiastic students will learn a lot of mathematics from this book. (David Singmaster American Scientist) This is an excellent book that can be used to either refresh your understanding of group theory or teach it to advanced undergraduates. The objects being manipulated are easy to understand, sometimes easy to build or acquire and the explanations are easy to follow. They are also different from those found in the standard group theory text. (Charles Ashbacher) This is a book on group theory that lives outside the usual rather dry regime of typical mathematics texts. In setting the book squarely among these puzzles, the underlying mathematics comes alive in quite spectacular fashion. The author achieves this goal admirably here. The text is well organized and written in an interesting and very readable manner. (Ian W. Knowles, University of Alabama, Birmingham) "This is an excellent book that can be used to either refresh your understanding of group theory or teach it to advanced undergraduates. The objects being manipulated are easy to understand, sometimes easy to build or acquire and the explanations are easy to follow. They are also different from those found in the standard group theory text." -- Charles Ashbacher From the Publisher "This is a book on group theory that lives outside the usual rather dry regime of typical mathematics texts. In setting the book squarely among these puzzles, the underlying mathematics comes alive in quite spectacular fashion. The author achieves this goal admirably here. The text is well organized and written in an interesting and very readable manner." Ian W. Knowles, University of Alabama