1. Record Nr. UNINA9910897980303321 Autore **Nacin David** Titolo The Group Theory Puzzle Book / / by David Nacin Cham:,: Springer Nature Switzerland:,: Imprint: Springer,, 2024 Pubbl/distr/stampa **ISBN** 3-031-70091-0 Edizione [1st ed. 2024.] Descrizione fisica 1 online resource (168 pages) SUMS Readings, , 2730-5821 Collana 512.2 Disciplina Soggetti Group theory Mathematics **Group Theory and Generalizations General Mathematics** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia - Integer Calcudoku -- Groups Through Puzzles -- Abelian Groups --Nota di contenuto Non-abelian Groups -- Further Tricks and Techniques -- Solutions. Sommario/riassunto This book introduces readers to key concepts in group theory through engaging puzzles. The early sections of the book show how the rules of group theory emerge naturally from solving puzzles. Different classes of groups, such as cyclic, dihedral and permutation groups are introduced, accompanied by numerous puzzles to facilitate the understanding of the underlying group structures. Later chapters explain how further group theory principles can be applied to puzzlesolving. This book is intended as a highly motivating supplementary text for an undergraduate abstract algebra course. It is also ideal for anyone seeking a fun, hands-on approach to learning group theory. Additionally, the book's many puzzles will be enjoyable for readers

already familiar with group theory.