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Soggetti	Logic, Symbolic and mathematical Proof theory Set theory Electronic books.
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Learning to Reason: An Introduction to Logic, Sets, and Relations; Contents; To Students; To Teachers; 1 Logical Reasoning; 1.1 Symbolic Language; 1.2 Two Quantifiers; 1.3 Five Logical Operators; 1.4 Laws of Logic; 1.5 Logic Circuits; 1.6 Translations; Review; 2 Writing Our Reasoning; 2.1 Proofs & Arguments; 2.2 Proving Implications; 2.3 Writing a Proof; 2.4 Working with Quantifiers; 2.5 Using Cases; 2.6 Proof by Contradiction; 2.7 Mathematical Induction; 2.8 Axiomatic Systems; Review; 3 Sets - The Building Blocks; 3.1 Sets & Elements; 3.2 Operations on Sets 3.3 Multiple Unions & Intersections3.4 Cross Product; 3.5 Finite Sets; 3.6 Infinite Sets; Review; 4 Relations - The Action; 4.1 Relations; 4.2 Equivalence Relations; 4.3 Functions; 4.4 Order Relations; Review; Appendix A Selected Answers; Appendix B Glossary; Appendix C Symbols; Appendix D Suggested Readings; Index
Sommario/riassunto	Learn how to develop your reasoning skills and how to write well-reasoned proofsLearning to Reason shows you how to use the basic elements of mathematical language to develop highly sophisticated,

logical reasoning skills. You'll get clear, concise, easy-to-follow instructions on the process of writing proofs, including the necessary reasoning techniques and syntax for constructing well-written arguments. Through in-depth coverage of logic, sets, and relations, Learning to Reason offers a meaningful, integrated view of modern mathematics, cuts through confusing terms and ideas, and pro