

51-0330

QA9

MARC

Cunningham, Daniel W. **A logical introduction to proof**. Springer, 2013, (c2012). 356p indexes afp ISBN 9781461436300, \$59.95; ISBN 9781461436317 ebook, \$47.99

Like several of the current textbooks on introduction to proofs, the core of this book is logic, induction, set theory, functions, and relations, with support material on the fundamentals from abstract algebra and real analysis. Cunningham (Buffalo State, SUNY) focuses on the strategies for different proof techniques. A "Summary of Strategies" section at the end of the book allows easy reference to a specific strategy once it has been developed. The author also uses the concepts from Jon Barwise and John Etchemendy's Tarski's World, a software program and book of the same name (1st ed., 1993; revised and expanded edition, 2008, coauthored with David Barker-Plummer) to develop an understanding of predicate logic. It is not necessary to purchase the software since Cunningham provides the required information. The well-written text is consistent in its focus, which should help students. The book includes sufficient, appropriate exercises. It lacks solutions, but contains ample notes to guide students through most of the exercises. Whether used for a course or as a reference for students learning proof techniques, this book is certainly worthy of consideration. **Summing Up:** Highly recommended. Lower-division undergraduates through graduate students.

--J. R. Burke, Gonzaga University

Copyright 2013 American Library Association