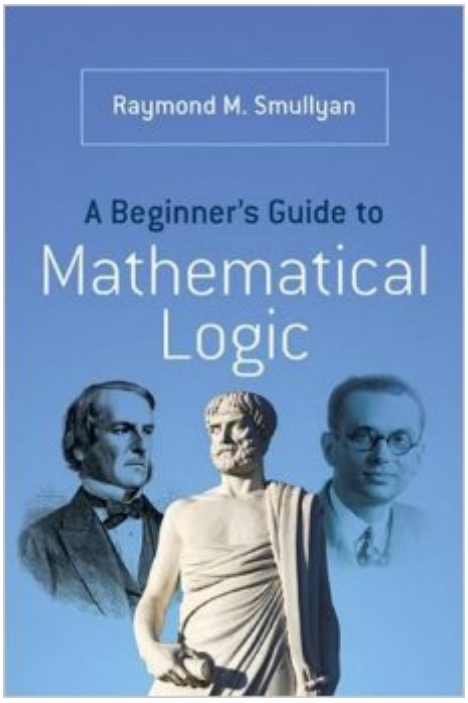
A Beginner's Guide To Mathematical Logic (Dover Books On Mathematics)



Synopsis

Written by a creative master of mathematical logic, this introductory text combines stories of great philosophers, quotations, and riddles with the fundamentals of mathematical logic. Author Raymond Smullyan offers clear, incremental presentations of difficult logic concepts. He highlights each subject with inventive explanations and unique problems.Smullyan’s accessible narrative provides memorable examples of concepts related to proofs, propositional logic and first-order logic, incompleteness theorems, and incompleteness proofs. Additional topics include undecidability, combinatoric logic, and recursion theory. Suitable for undergraduate and graduate courses, this book will also amuse and enlighten mathematically minded readers. 2014 edition.

Book Information

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Customer Reviews

I should begin by noting that I’ve been a fan of Raymond Smullyan’s books for many years now and have bought and enjoyed each volume. Although often described as "puzzle" books (which they are), they are also much more than that as Professor Smullyan uses his puzzles, all of which are normally woven into well-told stories and tales, not only to entertain, but also to teach various aspects of logic. I’ve found all the books to be (very) interesting reads, challenging, and amazingly effective at elevating one’s understanding of some often daunting matters. As an example, one of his books brings one along to the point of actually understanding, in much more than just a "pop-science" way, some of the complexities and implications of Kurt Godel’s work--quite an accomplishment. As a result, when I saw that Smullyan had written a more formal guide to mathematical logic, I quickly availed myself of the opportunity of buying it and digging in. Unfortunately, I became somewhat frustrated for two separate but related reasons, one of which

was due simply to having purchased the Kindle edition. The first difficulty is due to a quirk of mine, but one I believe may be shared by others. Often in academic texts about math or the hard sciences problems or exercises are given at the end of chapters which allow one to practice the topics covered in that particular chapter. Most teachers of math generally agree that having the students do a number of such problems is very useful, maybe even essential, to allowing students to gain mastery of the topic in question. I agree with this general attitude or belief. I also believe, however, that doing the exercises should not be essential before moving on to the next chapter.