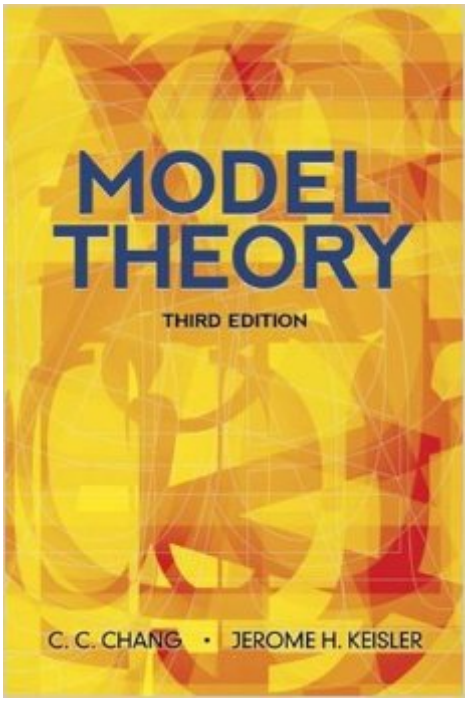
Model Theory: Third Edition (Dover Books On Mathematics)



Synopsis

Model theory deals with a branch of mathematical logic showing connections between a formal language and its interpretations or models. This is the first and most successful textbook in logical model theory. Extensively updated and corrected in 1990 to accommodate developments in model theoretic methods â ” including classification theory and nonstandard analysis â ” the third edition added entirely new sections, exercises, and references.Each chapter introduces an individual method and discusses specific applications. Basic methods of constructing models include constants, elementary chains, Skolem functions, indiscernibles, ultraproducts, and special models. The final chapters present more advanced topics that feature a combination of several methods. This classic treatment covers most aspects of first-order model theory and many of its applications to algebra and set theory.

Book Information

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Customer Reviews

This is a heavy book, not a gentle first introduction to model theory. I am not an expert in this subject, but since no one else has reviewed this book yet, I’ll say what I can.In this Dover book, "Model Theory: Third Edition, by Chang and Keisler, the first paragraph of page x, "How to use this book as a text", is a bit misleading in my opinion. (You can see this page in the preview.) This paragraph is such an understatement, I think it deserves to be quoted here.* "This book is written at a level appropriate to first year graduate students in mathematics. The only prerequisite is some exposure to elementary logic including the notion of a formal proof. It would be helpful if the student

has had undergraduate-level courses in set theory and modern algebra. All the set theory needed for the book is presented in the Appendix which the student can use to fill in any gaps in his knowledge. The first four chapters proceed at a leisurely pace. The last three chapters proceed more rapidly and require more sophistication on the part of the student."My comments:* The "first year graduate" level is accurate.* Their prerequisite of "some exposure" to elementary logic and formal proofs seems a bit inadequate. I think a fairly thorough-going course on mathematical logic would be more suitable.* I think it would not be just "helpful" to have studied undergraduate set theory. It’s really essential, and not just ZFC set theory. One really needs to know quite a lot about ordinal arithmetic beforehand too.