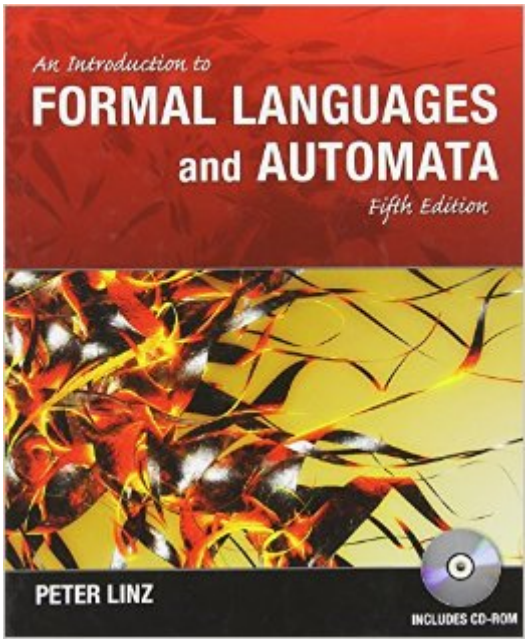
An Introduction To Formal Languages And Automata, 5th Edition



Synopsis

Written to address the fundamentals of formal languages, automata, and computability, An Introduction to Formal Languages and Automata provides an accessible, student-friendly presentation of all material essential to an introductory Theory of Computation course. It is designed to familiarize students with the foundations and principles of computer science and to strengthen the students' ability to carry out formal and rigorous mathematical arguments. In the new Fifth Edition, Peter Linz continues to offer a straightforward, uncomplicated treatment of formal languages and automata and avoids excessive mathematical detail so that students may focus on and understand the underlying principles. In an effort to further the accessibility and comprehension of the text, the author has added new illustrative examples and exercises throughout. There is a substantial amount of new material in the form of two new appendices, and a CD-ROM of JFLAP exercises authored by Susan Rodger of Duke University. The first appendix is an entire chapter on finite-state transducers. This optional chapter can be used to prepare students for further related study. The second appendix offers a brief introduction to JFLAP; an interactive software tool that is of great help in both learning the material and in teaching the course. Many of the exercises in the text require creating structures that are complicated and that have to be tested for correctness. JFLAP can greatly reduce studentsâ ™ time spent on testing as well as help them visualize abstract concepts. The CD-ROM that accompanies every new printed copy expands this and offers exercises specific for JFLAP. (Please note, ebook version does not include the CD-ROM) Instructor Resources: -Instructor Manual -PowerPoint Lecture Outlines

Book Information

Hardcover: 437 pages

Publisher: Jones & Bartlett Learning; 5 edition (February 28, 2011)

Language: English

ISBN-10: 144961552X

ISBN-13: 978-1449615529

Product Dimensions: 1.2 x 7.5 x 9.2 inches

Shipping Weight: 2.2 pounds (View shipping rates and policies)

Average Customer Review: 2.3 out of 5 starsÂ Â See all reviewsÂ (21 customer reviews)

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Customer Reviews

There is a format that mathematical writing follows: You define terms, you states theorems, and you prove theorems. In between these elements, you include narrative sections, which can clarify and explain, provide concrete examples, or do anything else to accommodate the reader. It should be very clear to the reader whether a passage is a definition, a theorem, a proof, or something else.The book mangles this format. It pretends to give definitions, (labelled "Definition"), but then scatters vital parts of the definition between examples, theorems, and unstructured rambling.For example, what is a "Grammar"? Linz tells us in Definition 1.1 that a grammar is a set a four sets, which are called "Variables", "Terminals", "Start Symbol", and "Productions". Thus ends Definition Box 1.1. Great. So a grammar is four sets called W, X, Y, and Z, each of which has never been mentioned before and will never be defined later. Literally, there is no part in the surrounding pages where Linz finally says "In the above definition, the set "Productions" is defined to be a set of X". Linz talks _about_ the set "Productions", and you can suss out the actual definition, but he refuses to just give an outright definition and label it as such. Linz would be better off copying the wikipedia definition, which immediately defines "Productions" in an unambiguous way, and doesn't force you skim the next few pages looking a definition which will never be given.The entire book has this problem of only _naming_ things in definitions, and actually defining things in a rambling way over the next few pages.Avoid this book. Please don't assign it to your students.

This is a terrible book. The author spends way to much time on unimportant/irrelevant example topics and does not give you the tools necessary to complete the exercises. Additionally the solutions in the back appear to be only for easy problems. Hope that you are not required to use such an awful book...

Nearly all of the writer's explanations are lacking at best. There are practically no examples to help you understand what the writer is trying to convey. The answers in the back of the book seem to only be for the easiest questions. Many of the proofs are incomplete as the writer intends for you to come up with them in exercises without adequate explanation.In short, if you have to use this book, I`m sorry.If you are a teacher, do your students a favor and use a different book.If you want to learn the subject on your own, you are better off with another book or even wikipedia.

I had to use this book in a required undergraduate class. As a mature graduate student going back to school, I am used to reading a text and learning the subject from it. This book is boring in places and confusing in others. It is not easy to pick out the important topics from the chapters and the exercises have too many errors. We used the 4th edition, but the current students complain about the 5th edition also.If you use this book as a student, I hope you have a good instructor who can teach the course without the book. It is only good as a source for exercises. I loved the course because I am mathematically inclined, I hated the book for the same reason.Some of the sections on formal grammars were good, but I had to go back to pick up the important points because they were not clearly stressed.

There are several important points that I want to share:- It’s not an advanced book at all, instead of including many extremely poor written proofs. That’s why is confusing many students.- The writing style is very difficult to read, especially "leaving many important details as exercises".- The price is ridiculous.- Absolutely not for self-teaching student. I guarantee, pick up "Introduction to the Theory of Computation" by Michael Sipser, you will learn what CS Theory really is.- The only part is worth the money is the exercises, that’s it!- Many typographical errors, and it’s already 5th edition.I’m a self-teaching student who has been teaching myself many advanced courses including CS Theory, Number Theory..., but I haven’t found one book is that bad! Remember when I asked my teacher why did we choose this text. He just smiled and said, "just because it covers everything I teach". If you need a reference, there you go. If you want to learn CS theory, stay away from this book. Sipser’s book is ten times better than this one, and it’s worth every single dollar you spend.

Not exactly the best book. That is why an in-class lecture is required. This book is somewhat odd.. how do I put it? It’s very simple? It describes something very complex in very few words. It’s not exactly a good self-study book. There aren’t many examples either, which formal languages and automata needs to be able to convey the idea across the reader/studier. Automata isn’t a complex subject at all if you learn the concepts correctly, BUT this book makes me think it’s the most difficult thing in the world. I remember I stubbornly tried to read the same sentence over and over again thinking I could read behind the meaning, because I got so frustrated trying to understand the topic and refused to give up, but how do you find the meaning behind ONE sentence that tried to explain what a Turing machine is? Stupid book. I hate you.

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