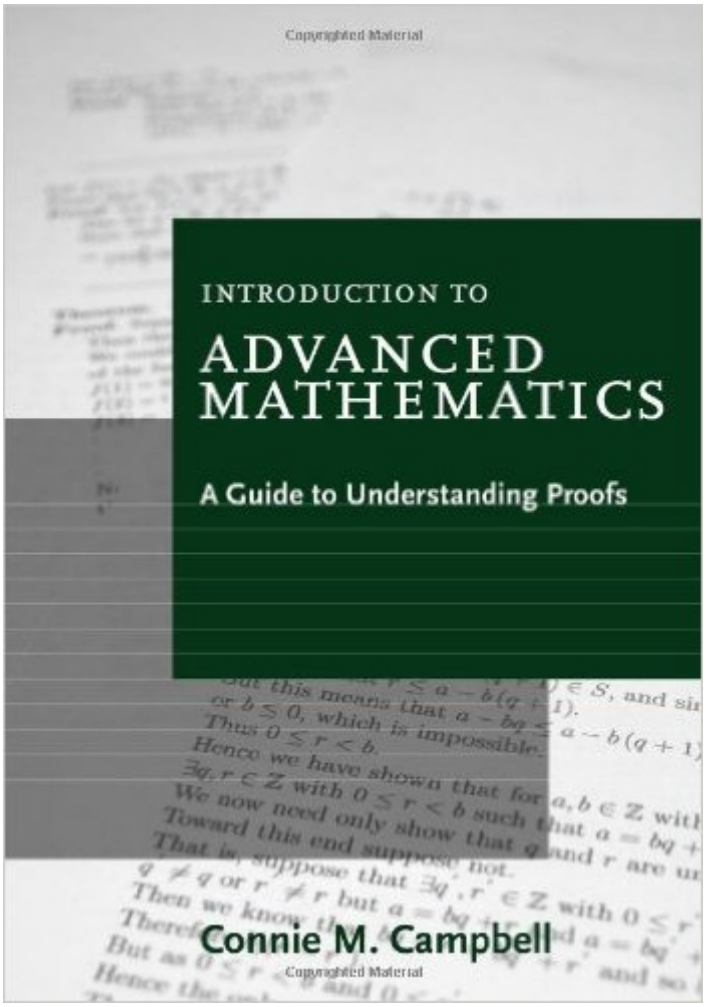
Introduction To Advanced Mathematics: A Guide To Understanding Proofs



Synopsis

This text offers a crucial primer on proofs and the language of mathematics. Brief and to the point, it lays out the fundamental ideas of abstract mathematics and proof techniques that students will need to master for other math courses. Campbell presents these concepts in plain English, with a focus on basic terminology and a conversational tone that draws natural parallels between the language of mathematics and the language students communicate in every day. The discussion highlights how symbols and expressions are the building blocks of statements and arguments, the meanings they convey, and why they are meaningful to mathematicians. In-class activities provide opportunities to practice mathematical reasoning in a live setting, and an ample number of homework exercises are included for self-study. This text is appropriate for a course in Foundations of Advanced Mathematics taken by students who've had a semester of calculus, and is designed to be accessible to students with a wide range of mathematical proficiency. It can also be used as a self-study reference, or as a supplement in other math courses where additional proofs practice is needed.

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Customer Reviews

This is such a rewarding book if you put in the time. I was using it for self study, mainly because I was struggling understanding the proofs in my CS algorithms text - I got frustrated simply skipping over the proofs, and decided to invest some time in the foundations - namely logic and proofs. Prof Campbell has done a fantastic job with this little book, it's opened up a whole new world for me

personally - I don’t have that "dread" when I see a proof in my other textbooks - I actually have gained a deeper understanding of subject matter, now that I am armed with these proof skills.

This book is much more clear than others I have read on proof writing. It is fairly small but it is concise and manages to include most of the important information.