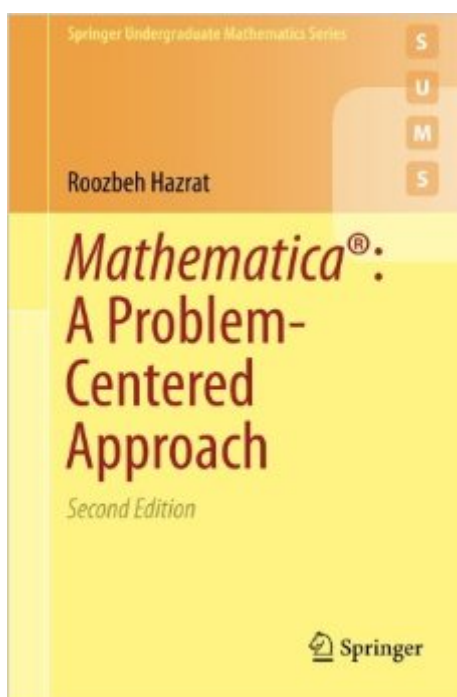# Mathematica®: A Problem-Centered Approach (Springer Undergraduate Mathematics Series)

Synopsis

An introduction to the vast array of features and powerful mathematical functions of Mathematica that uses a multitude of clearly presented examples and worked-out problems that enable the reader to learn from the codes and avoids lengthy explanations.

Book Information

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Customer Reviews

I recently switched from Matlab (after extensively using it for many years) to Mathematica primarily due to better symbolic computation support in Mathematica. Compared to Matlab, Mathematica's official documentation is totally lacking in user friendliness. The official Mathematica website is a confusing jungle of videos, sample demonstrations and documentation that explains each command on a standalone basis. In short, a newcomer is left bewildered on how to get a comprehensive overview of how to use Mathematica effectively. In comes Dr. Hazrat's book! It guides the user through systematic process, using problems typically encountered in engineering/math curriculum, to provide a comprehensive overview of Mathematica's capabilities. After going through this book, I was able to make sense of the user documentation at Mathematica's official website. Note, Dr. Hazrat's book, because of limited size, does not cover topics such as Web Mathematica (cloud version) or development of Mathematica packages for standalone/compiled program development. For this, user will have to seek documentation at Mathematica's official website or look for another (hopefully, equally good) book. I give it 5 stars because it gave me the necessary knowledge and

confidence to strike out on my own in using Mathematica effectively.

This book covers the basics of Mathematica in a succinct, intelligent way. There are examples of functional programming, rule matching, graphics, calculus, and more of the essentials, all in under 200 pages. Not the only Mathematica book you'll want to read, but definitely an excellent first one.

I teach at an online school and use Mathematica for lots of things, preparing lessons, file management, test creation, etc.As a high school math teacher, I don't have background in programming, but I'm always looking for ways to help me use Mathematica more effectively.I have quite a few Mathematica books on my shelves, this is absolutely the best!It's not huge, but all the things I have worked on so far,have been useful.Some books have massive projects, but if they are beyond the experience or skill of the reader, they aren't useful.I am at chapter 3, and this is the first book that hasn't made me give up in the first few chapters.I've also peeked ahead to see what's coming, and the quality of the examples has me determined to see this right through to the end.I am learning a ton, and so far, everything has been clear, easy to follow, and very useful!All the examples are accessible, and the fact that they are all "one liners" means I actually DO THEM, they are easy to type in andexperiment with.Finally, unlike some other books, the author actually provides answers!Top marks for this one!!

I can't say I've enjoyed this book, because I've had to WORK to master it. I'm now on the last two pages of chapter 6, and I've easily spent well over 100 hours on my iMac to get this far. Overall, the writing and, particularly, the coding is clear. Its examples and problems are interesting and (at least to me) challenging. However frustrated I sometimes feel as I try to solve a problem or example, I have a feeling of accomplishment when I'm done. I certainly recommend the book to other Mathematica users.

The author surfaces many useful tidbits of helpful programming tips needed to get the job done with minimal sturm-und-drang. In terms of the basics, many books lack these seemingly trivial, yet actually important 'extra' pieces, by assuming that you should know these parts--that are absolutely essential, yet they omit. This is especially relevant if you are coming from a programming background involving: C, C++, C#, or other similars, in which functions are not quite defined the same way (--i.e., they are more limited). For me, this is truly the 'missing manual' I was searching for, yet could not find for a while, until I took a chance on this fine book. The examples then venture

into advanced areas, and not surprisingly, the same (high-quality) level of excellence is maintained. To the author: many thanks for your Rosetta Stone that shows so many informative examples. (Other authors: please take note of this excellent example of pedagogy! I wish all programming book authors realized what they may be missing, especially in the case of an exotic computer language such as Mathematica.) I will glady purchase any other works on Mathematica by this thoughtful author.

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