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A student's guide to the study, practice, and tools of modern mathematics.

Discrete Mathematics and Its Applications. Boca Raton, FL: CRC Press (ISBN 978-1-4398-4606-3/pbk). xi, 260 p. (2011).

This is an excellent book on student's guide to the study, practice, and tools of modern mathematics. It provides an accessible introduction to the world of mathematics: The first section of the book covers issues pertaining to studying mathematics: how to learn and write mathematics, how to research and present mathematics. The second section focuses on the use both popular commercial software programs and free open source software for mathematical typesetting, generating data, finding patterns, create mathematical diagrams, use computer algebra systems, display ideas on web page, and much more. This book can help students succeed in their mathematical endeavors and can accompany them to grow mathematically. Actually, this book should help students get started in mathematics. There are many excellent topics covered in the book: Introduction to the LaTeX typesetting system, explanation of computer algebra systems, including `Mathematica`, `Maple`, and `Macsyma`, presentation the computational and graphics capabilities of `MATLAB`, description how to design web pages using HTML, inspiration to use free resources, including `Octave`, `R`, and Linux, discussion how to use interactive geometry software, such as `Geometer's Sketchpad` and `GeoGebra`. Showing how to use technology to understand mathematics, this book supports students on their way to becoming professional mathematicians. The book is useful for beginning mathematics students as it helps them study for tests and write papers. The book is excellent for advanced mathematics students as it aids them in performing advanced activities, such as typesetting, computer programming, and research, as well as explains the use of popular mathematical tools. *Valentina Dagienë (Vilnius)*

Classification: D30 R20 U50 D40
Keywords: mathematics education; mathematical tools; typesetting system; interactive geometry software; computer algebra systems; educational technology