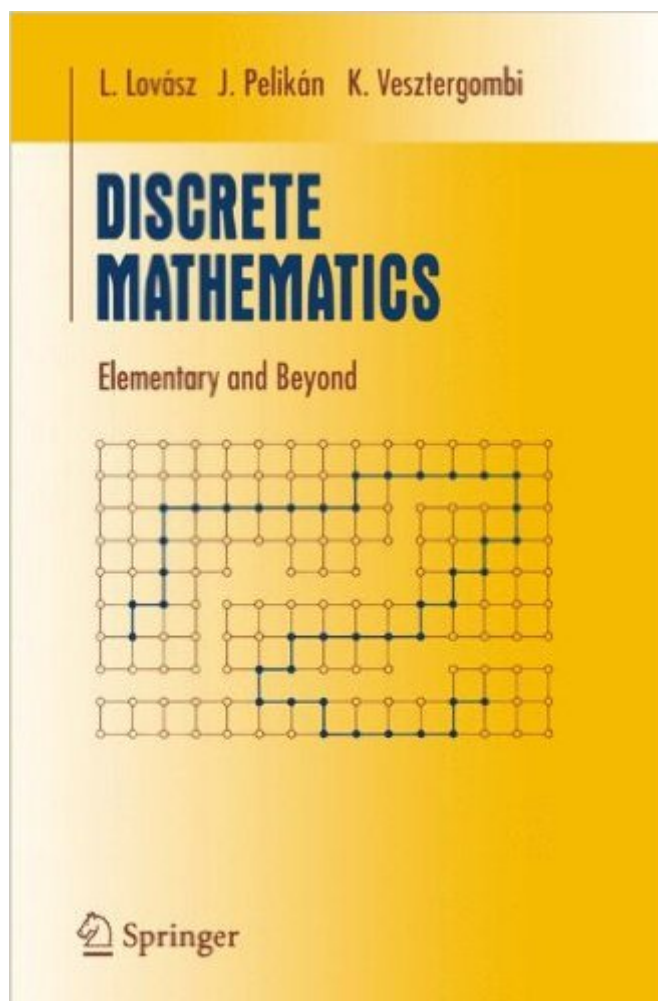# Discrete Mathematics: Elementary And Beyond (Undergraduate Texts In Mathematics)

Synopsis

Aimed at undergraduate mathematics and computer science students, this book is an excellent introduction to a lot of problems of discrete mathematics. It discusses a number of selected results and methods, mostly from areas of combinatorics and graph theory, and it uses proofs and problem solving to help students understand the solutions to problems. Numerous examples, figures, and exercises are spread throughout the book.

Book Information

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Customer Reviews

For my purposes, this textbook has no competitors. But first, let me explain my situation: I teach a 100-level college discrete math course. By "100-level," I mean something about as advanced as high school trigonometry/pre-calculus, with high-school-level algebra as the only prerequisite. Unlike many discrete math courses, mine is not primarily aimed at computer science majors -- they generally make up only about a third of the enrollment. As a whole, what my students need is to get a sense of what mathematics is like outside of the calculus sequence, and also a good introduction to reading and writing proofs. With all of that in mind, this is by far the best individual textbook I could use, to my knowledge (and I have looked over an absurd number of other discrete math texts). To be honest, sometimes I suspect I could write a better introductory discrete math textbook than this one, but I must be wrong, since apparently no one else can.The best qualities of this textbook are its very broadly accessible style and, at the same time, the fact that it doesn't treat

mathematics like a mere sequence of rules to be memorized and procedures to be "mastered." Unfortunately, that cookbook kind of presentation, followed by a mechanical regurgitation of pointless "skills," is what most of today's students seem to crave in math (witness the popularity of Khan Academy, for example). This textbook is one of those rare gems that puts mathematics in its proper light, as a field of real human curiosity, in some ways resembling an expressive art as much as a science.One major problem with textbooks in this subject is that there are about a half dozen different versions of a "discrete math" course, some bearing almost no resemblance to others.

Discrete Mathematics: Elementary and Beyond (Undergraduate Texts in Mathematics) A Discrete Transition to Advanced Mathematics (Pure and Applied Undergraduate Texts) Elementary Number Theory: Primes, Congruences, and Secrets: A Computational Approach (Undergraduate Texts in Mathematics) Elementary Topics in Differential Geometry (Undergraduate Texts in Mathematics) A First Course in Discrete Mathematics (Springer Undergraduate Mathematics Series) Mathematics and Its History (Undergraduate Texts in Mathematics) Ideals, Varieties, and Algorithms: An Introduction to Computational Algebraic Geometry and Commutative Algebra (Undergraduate Texts in Mathematics) Calculus with Vectors (Springer Undergraduate Texts in Mathematics and Technology) Conics and Cubics: A Concrete Introduction to Algebraic Curves (Undergraduate Texts in Mathematics) The Foundations of Geometry and the Non-Euclidean Plane (Undergraduate Texts in Mathematics) Applied Linear Algebra and Matrix Analysis (Undergraduate Texts in Mathematics) Groups and Symmetry (Undergraduate Texts in Mathematics) Introduction to Mathematical Structures and Proofs (Undergraduate Texts in Mathematics) The Pleasures of Probability (Undergraduate Texts in Mathematics) Rational Points on Elliptic Curves (Undergraduate Texts in Mathematics) Topology (Undergraduate Texts in Mathematics) Basic Concepts of Algebraic Topology (Undergraduate Texts in Mathematics) Introduction to Partial Differential Equations (Undergraduate Texts in Mathematics) Real Mathematical Analysis (Undergraduate Texts in Mathematics) Understanding Analysis (Undergraduate Texts in Mathematics)