Record Nr. UNINA9911001472703321 Autore Sobot Robert Titolo Engineering Mathematics by Example: Vol. I: Algebra and Linear Algebra / / by Robert Sobot Cham:,: Springer Nature Switzerland:,: Imprint: Springer,, 2025 Pubbl/distr/stampa **ISBN** 3-031-81076-7 Edizione [3rd ed. 2025.] 1 online resource (XVI, 538 p. 171 illus. in color.) Descrizione fisica Disciplina 621.3815 Soggetti Electronic circuit design Embedded computer systems Mathematics - Data processing **Electronics Design and Verification Embedded Systems** Computational Science and Engineering Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Part 1 Algebra -- Chapter 1 Numbers -- Chapter 2 Polynomials --Nota di contenuto Chapter 3 Linear Equations and Inequalities -- Chapter 4 Irrational Equations -- Chapter 5 Logarithmic and Exponential Functions -- Part 2 Trigonometry and Complex Algebra -- Chapter 6 Elements of Analytic Geometry -- Chapter 7 Trigonometry -- Chapter 8 Complex Algebra -- Chapter 9 Bode plot -- Part 3 Linear Algebra -- Chapter 10 Linear Algebra. Sommario/riassunto This textbook is a complete, self-sufficient, self-study/tutorial-type source of mathematical problems. It serves as a primary source for practicing and developing mathematical skills and techniques that will be essential in future studies and engineering practice. Rigor and mathematical formalism is drastically reduced, while the main focus is on developing practical skills and techniques for solving mathematical problems, given in forms typically found in engineering and science. These practical techniques are split into three separate books: the topics of algebra, complex algebra, and linear algebra (Vol. I), calculus

of single and multiple argument functions (Vol. II), continues and discrete Convolution and Fourier integrals/sums of typical functions

used in signal processing, and Laplace transform examples (Vol. III). Offers a large collection of progressively more sophisticated problems on main mathematical topics; Provides, at the beginning of each topic, a brief review of definitions and formulas that are about to be used; Includes tutorial-style, complete solutions, to all problems.