

Numerical Analysis A R Vasishtha

This well-respected text gives an introduction to the theory and application of modern numerical approximation techniques for students taking a one- or two-semester course in numerical analysis. With an accessible treatment that only requires a calculus prerequisite, Burden and Faires explain how, why, and when approximation techniques can be expected to work, and why, in some situations, they fail. A wealth of examples and exercises develop students' intuition, and demonstrate the subject's practical applications to important everyday problems in math, computing, engineering, and physical science disciplines. The first book of its kind built from the ground up to serve a diverse undergraduate audience, three decades later Burden and Faires remains the definitive introduction to a vital and practical subject. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

This book provides exposition of the subject both in its general and algebraic aspects. It deals with the notions of topological spaces, compactness, connectedness, completeness including metrizable and compactification, algebraic aspects of topological spaces through homotopy groups and homology groups. It begins with the basic notions of topological spaces but soon going beyond them reaches the domain of algebra through the notions of homotopy, homology and cohomology. How these approaches work in harmony is the subject matter of this book.

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