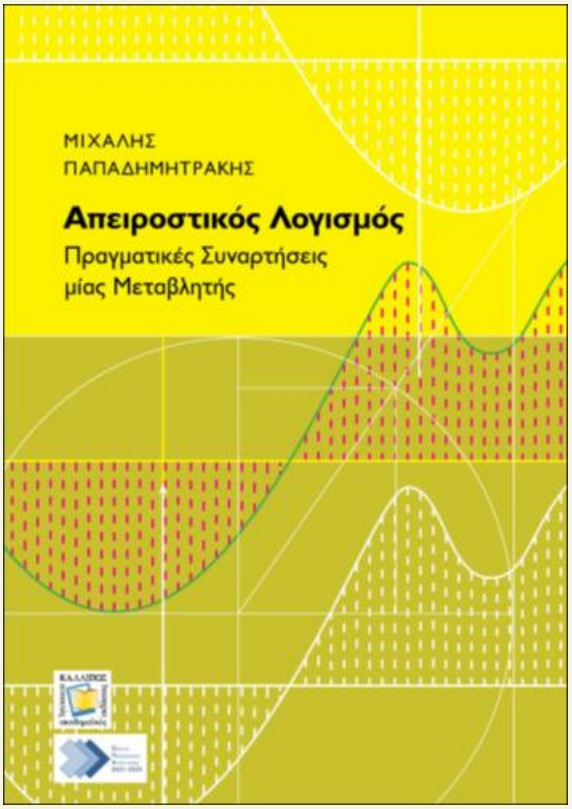

METADATA

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Abstract

The following topics are presented in this book: basic properties of real numbers, functions of one real variable with real values, limit of a sequence of real numbers and properties, limit of a function and properties, continuity of a function and the basic theorems for continuous functions, derivative of a function and properties, study of a function (monotonicity, convexity) using derivatives, integral of a function and properties, relation between derivation and integration (Fundamental Theorem of Infinitesimal Calculus), techniques of integration, applications of integrals (areas, work of a force, length of a curve), series of numbers and their convergence criteria, power series and Taylor series, simple differential equations of first and second order and, finally, some theoretical matters of the mathematical foundation of the real numbers (supremum property) and strict proofs of some of the basic theorems of the text.

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