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Nota di contenuto	Frontmatter -- Contents -- Preface -- Chapter 1. Algebra of Classes and Propositional Calculus -- Chapter 2. The Theory of Relatives -- Chapter 3. Changing the Order of Quantifiers -- Chapter 4. The Löwenheim Normal Form -- Chapter 5. Preliminaries to Löwenheim's Theorem -- Chapter 6. Löwenheim's Theorem -- Appendix. First-Order Logic with Fleeing Indices -- References -- Index
Sommario/riassunto	Löwenheim's theorem reflects a critical point in the history of mathematical logic, for it marks the birth of model theory--that is, the part of logic that concerns the relationship between formal theories and their models. However, while the original proofs of other, comparably significant theorems are well understood, this is not the case with Löwenheim's theorem. For example, the very result that scholars attribute to Löwenheim today is not the one that Skolem--a logician raised in the algebraic tradition, like Löwenheim--appears to have attributed to him. In The Birth of Model Theory, Calixto Badesa provides both the first sustained, book-length analysis of Löwenheim's proof and a detailed description of the theoretical framework--and, in particular, of the algebraic tradition--that made the theorem possible.

Badesa's three main conclusions amount to a completely new interpretation of the proof, one that sharply contradicts the core of modern scholarship on the topic. First, Löwenheim did not use an infinitary language to prove his theorem; second, the functional interpretation of Löwenheim's normal form is anachronistic, and inappropriate for reconstructing the proof; and third, Löwenheim did not aim to prove the theorem's weakest version but the stronger version Skolem attributed to him. This book will be of considerable interest to historians of logic, logicians, philosophers of logic, and philosophers of mathematics.
