

1. Record Nr.	UNINA9910480566603321
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Titolo	Numbers [[electronic resource] /] / by Heinz-Dieter Ebbinghaus, Hans Hermes, Friedrich Hirzebruch, Max Koecher, Klaus Mainzer, Jürgen Neukirch, Alexander Prestel, Reinhold Remmert ; edited by John H. Ewing
Pubbl/distr/stampa	New York, NY : , : Springer New York : , : Imprint : Springer, , 1991
ISBN	1-4612-1005-4
Edizione	[1st ed. 1991.]
Descrizione fisica	1 online resource (XVIII, 398 p.)
Collana	Readings in Mathematics ; ; 123
Disciplina	512/.7
Soggetti	Number theory Number Theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Translation of: Zahlen. "With 24 illustrations."
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	A. From the Natural Numbers, to the Complex Numbers, to the p-adics -- 1. Natural Numbers, Integers, and Rational Numbers -- 2. Real Numbers -- 3. Complex Numbers -- 4. The Fundamental Theorem of Algebr -- 5. What is ?? -- 6. The p-Adic Numbers -- B. Real Division Algebras -- Repertory. Basic Concepts from the Theory of Algebras -- 7. Hamilton's Quaternions -- 8. The Isomorphism Theorems of FROBENIUS, HOPF and GELFAND-MAZUR -- 9. CAYLEY Numbers or Alternative Division Algebras -- 10. Composition Algebras. HURWITZ's Theorem-Vector-Product Algebras -- 11. Division Algebras and Topology -- C. Infinitesimals, Games, and Sets -- 12. Nonsiandard Analysis -- 13. Numbers and Games -- 14. Set Theory and Mathematics -- Name Index -- Portraits of Famous Mathematicians.
Sommario/riassunto	A book about numbers sounds rather dull. This one is not. Instead it is a lively story about one thread of mathematics-the concept of "number" - told by eight authors and organized into a historical narrative that leads the reader from ancient Egypt to the late twentieth century. It is a story that begins with some of the simplest ideas of mathematics and ends with some of the most complex. It is a story that mathematicians, both amateur and professional, ought to know. Why write about

numbers? Mathematicians have always found it difficult to develop broad perspective about their subject. While we each view our specialty as having roots in the past, and sometimes having connections to other specialties in the present, we seldom see the panorama of mathematical development over thousands of years. Numbers attempts to give that broad perspective, from hieroglyphs to K-theory, from Dedekind cuts to nonstandard analysis.
