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Titolo	The Oxford handbook of numerical cognition // edited by Roi Cohen Kadosh and Ann Dowker [[electronic resource]]
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ISBN	0-19-175087-5 0-19-103600-5
Descrizione fisica	1 online resource (1217 p.)
Collana	Oxford library of psychology Oxford handbooks online
Disciplina	513
Soggetti	Mathematical ability - Psychological aspects Cognition
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Primitives and Non-Primitives of Numerical Representations / Dana Ganor-Stern -- Cognitive Linguistics and the Concept(s) of Number / Rafael NAIÂçuAIÂænez -- Number Representations and Their Relation with Mathematical Ability / Titia Gebuis -- Numerical Abilities and Arithmetic in Infancy / Koleen McCrink -- Multi-digit Number Processing / Hans-Christoph Nuerk -- Finger-based representation of mental arithmetic / Michael Andres -- Philosophy of Number / Marcus Giaquinto -- Linking Numbers to Space / Wim Gevers -- Arithmetic Word Problem Solving and Mental Representations / Catherine Thevenot -- Neuronal Correlates of Non-verbal Numerical Competence in Primates / Andreas Nieder -- Arithmetic Learning in Adults / Margarete Delazer -- Affect, Motivation, Working Memory, and Mathematics / Nathan O. Rudig -- Intuition in Mathematical and Probabilistic Reasoning / Kinga Morsanyi -- How Counting Leads to Children's First Representations of Exact, Large Numbers / Emily B. Slusser -- Individual differences in basic arithmetical processes in children and adults / Carla Sowinski -- Brain Correlates of Numerical Disabilities / Michael von Aster -- Development of the Numerical Brain / Michael von Aster -- Approximate Arithmetic Abilities in Childhood / Camilla Gilmore -- Figuring Out Children's Number Representations: Lessons from Cross-Cultural Work / Kevin Muldoon -- Individual

Differences in Arithmetical Abilities / Ann Dowker -- From Single-Cell Neuropathology to Mathematics Education: navigator chapter / Roi Cohen Kadosh -- Phylogeny and Ontogeny of Mathematical and Numerical Understanding / Elizabeth M. Brannon -- Monkey Mathematical Abilities / Michael J. Beran -- A Theory of Magnitude / Vincent Walsh -- The Classification and Cognitive Characteristics of Mathematical Disabilities in Children / David C. Geary -- Genetic Developmental Disorders and Numerical Competence across the Lifespan / Annette Karmiloff-Smith -- Numerical Symbols / Daniel Ansari -- How Informal Learning Activities Can Promote Children's Numerical Knowledge / Robert S. Siegler -- Education / Richard Cowan -- Early Number Competencies and Mathematical Learning / Lynn S. Fuchs -- Developing Conceptual and Procedural Knowledge of Mathematics / Michael Schneider -- Individual Differences in Children's Paths to Arithmetical Development / Julie-Ann Jordan -- Behavioural Genomics of Mathematics / Yulia Kovas -- Spontaneous Focusing on Numerosity and its Relation to Counting and Arithmetic / Minna M. Hannula-Sormunen -- New Possibilities for Early Mathematics Education / Dana Pagar -- How Abstract is Arithmetic? / Jamie I.D. Campbell -- Developmental Dyscalculia as a Heterogeneous Disability / Avishai Henik -- Dyscalculia / Diana Laurillard -- Numerical and Arithmetic Abilities in Non-primate Species / Christian Agrillo -- Using Learning Path Research to Balance Mathematics Education / Dor Abrahamson -- Mathematics Learning in the USA and JAPAN / Yukari Okamoto -- The Contributions of Syndrome Research to the Study of MLD / Michèle M. M. Mazocco -- Basic Number Representation and Beyond / Wim Fias -- Cognitive Foundations of Human Number Representations and Mental Arithmetic / Martin H. Fischer -- Numbers Count / Nick Dowrick -- Individual Differences in Word Problem Solving / Fien Depaepe -- The Neuropsychology of Acquired Number and Calculation Disorders / Marinella Cappelletti -- Applications of Neuroscience to Mathematics Education / Bert De Smedt -- Promoting Maths to the General Public / Chris J. Budd -- Computer-assisted Interventions on Basic Number Skills / Pekka Räsänen -- When Number Processing and Calculation Is Not Your Cup of Tea / Marie-Pascale Noel -- Numbers in the Dark: Numerical Cognition and Blindness / Julie Castronovo -- Culture, Language, and Number / Geoffrey B. Saxe -- Individual Differences / Chris Donlan -- Number Processing and Arithmetic in Children and Adults with Reading Difficulties / Silke M. Göbel -- Numerical Cognition During Cognitive Aging / Kim Uittenhove -- Arithmetic in the Child and Adult Brain / Vinod Menon -- Mapping the Brain for Math / Elena Salillas -- What is There to Learn from International Surveys of Mathematical Achievement? / Linda Sturman -- Cognitive Predictors of Mathematical Abilities and Disabilities / Annemie Desoete.

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### Sommario/riassunto

This book provides a comprehensive overview of numerical cognition by bringing together writing by leading researchers in psychology, neuroscience, and education, covering work using different methodological approaches in humans and animals.

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