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Titolo	And the Rest is Just Algebra // edited by Sepideh Stewart
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ISBN	3-319-45053-0
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (XX, 238 p. 92 illus., 22 illus. in color.)
Disciplina	370
Soggetti	Mathematics - Study and teaching Learning, Psychology of Mathematics Education Instructional Psychology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Operation Algebra: Investigating University Students' Inadequacies -- Student Conceptions in Two-Year College Algebra Courses -- Rational Number Fluency Supports Student Success in Algebra -- Long Term Effects of Sense Making and Anxiety in Algebra -- Algebra as Part of an Integrated High School Curriculum -- Overcoming the Algebra Barrier: Being Particular about the General, and Generally Looking Beyond the Particular -- Teaching and Learning Middle School Algebra: Valuable Lessons from the History of Mathematics -- Cognitive Neuroscience and Algebra -- Valuable Lessons from the History of Mathematics -- Cognitive Neuroscience and Algebra -- Rethinking Algebra: A Versatile Approach Integrating Digital Technology -- Learning Linear Algebra by Using It -- School Algebra to Linear Algebra: Advance from the Symbolic to Formal World of Mathematical Thinking.
Sommario/riassunto	This book addresses college students' weak foundation in algebra, its causes, and potential solutions to improve their long-term success and understanding in mathematics as a whole. The authors, who are experts in a wide variety of fields, emphasize that these difficulties are more complex than just forgotten rules, and offer strategic approaches from a number of angles that will increase the chances of student understanding. Instructors who are frustrated with their students' lack

of skills and knowledge at college level will find this volume helpful, as the authors confront the deeper reasons why students have difficulties with Algebra and reveal how to remedy the issue. Middle school, college algebra, calculus, and linear algebra teachers can all benefit from this book. Becoming proficient with algebra is a complex task—much more so than it appears to those who were successful the first time around. Furthermore, according to neuroscience studies, manipulating symbolic expressions requires considerable cognitive effort even for those who are proficient. In addition, ‘met-befores’ in the form of prior arithmetic thinking can thwart algebraic thinking. All this, and more, is considered in a readable way in this book. Annie Selden.
