1. Record Nr. UNINA9910161651803321 Autore Kieran Carolyn Titolo Early Algebra: Research into its Nature, its Learning, its Teaching // by Carolyn Kieran, JeongSuk Pang, Deborah Schifter, Swee Fong Ng Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2016 **ISBN** 3-319-32258-3 Edizione [1st ed. 2016.] Descrizione fisica 1 online resource (VIII, 42 p. 7 illus.) Collana ICME-13 Topical Surveys, , 2366-5955 370 Disciplina Soggetti Mathematics - Study and teaching Learning, Psychology of Teachers - Training of **Mathematics Education** Instructional Psychology Teaching and Teacher Education Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Main Topics You Can Find in this "ICME-13 Topical Survey" --Nota di contenuto Introduction -- Survey on the State-of-the-art -- Summary and Looking Ahead. Sommario/riassunto This survey of the state of the art on research in early algebra traces the evolution of a relatively new field of research and teaching practice. With its focus on the younger student, aged from about 6 years up to 12 years, this volume reveals the nature of the research that has been carried out in early algebra and how it has shaped the growth of the field. The survey, in presenting examples drawn from the steadily growing research base, highlights both the nature of algebraic thinking and the ways in which this thinking is being developed in the primary and early middle school student. Mathematical relations, patterns, and arithmetical structures lie at the heart of early algebraic activity, with processes such as noticing, conjecturing, generalizing, representing,

justifying, and communicating being central to students' engagement.