Record Nr. UNINA9910812210303321 The nature and role of algebra in the K-14 curriculum: proceedings of **Titolo** a national symposium May 27 and 28, 1997 / / sponsored by National Council of Teachers of Mathematics and Mathematical Sciences Education Board, Center for Science, Mathematics, and Engineering Education, National Research Council Washington, D.C., : National Academy Press, 1998 Pubbl/distr/stampa 0-309-17368-X **ISBN** 1-282-08173-X 9786612081736 0-309-52245-5 0-585-02229-1 Edizione [1st ed.] Descrizione fisica 1 online resource (206 p.) Disciplina 512/.071/073 Soggetti Algebra - Study and teaching - United States Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references (p. 187-190). Nota di bibliografia ""Front Matter""; ""Acknowledgments""; ""Preface""; ""Contents""; Nota di contenuto ""Introduction""; ""Opening Remarks*""; ""Algebra with Integrity and Reality"": ""Making Algebra Dynamic and Motivating: A National Challenge"": ""Transforming Algebra from an Engine of Inequity to an Engine of Mathematical Power by a€œAlgebrafyinga€? the K-12 Curriculum"": ""Developing a Coherent and Focused K-12 Algebra Curriculum""; ""Enhancing Algebraic Reasoning with Technology""; ""Algebra for Everyone? With or Without Technology?""; ""How Might Technology Enhance Algebraic Reasoning?"" ""What Do We Know about K-14 Studentsa€? Learning of Algebra?"""" Algebra: What All Students Can Learn""; ""Improving K-14 Algebra Instruction: A Discussion of Teachersa€? Responsibilities and Studentsa €? Opportunities""; ""Synthesis of Day One*""; ""Capturing Patterns and Functions: Variables and Joint Variation""; ""Functions and Relations: A Unifying Theme for School Algebra in Grades 9-12""; ""Middle School

Algebra from a Modeling Perspective""; ""Why Modeling Matters"";

""Modeling: Changing the Mathematics Experience in Postsecondary Classrooms""

""Algebraic Structure in the Mathematics of Elementary-School Children"""Structure in School Algebra (Middle School)""; ""The Role of Algebraic Structure in the Mathematics Curriculum of Grades 11-14""; ""Language and Representation in Algebra: A View from the Middle""; ""Teaching Algebra: Lessons Learned by a Curriculum Developer""; ""The Nature and Role of Algebra: Language and Representation""; ""Remarks*""; ""Appendix A The Nature and Role of Algebra in the K-14 Curriculum A National Symposium""; ""Appendix B List of Participants*""; ""Appendix C Speaker Biographies""
""Appendix D Invited Papers""""Appendix E A Framework for Constructing a Vision of Algebra: A Discussion Document""