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Collana	A quick-start guide Common core standards for high school mathematics
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Nota di contenuto	Cover; Title Page; Copyright Page; Table of Contents; Acknowledgments; Introduction; Chapter 1: About the Common Core Mathematics Standards for High School; The Standards for Mathematical Content; The Standards for Mathematical Practice; Implications of the Standards' Structure on Teaching and Learning; How to Begin Implementation; Focus on the mathematical practice standards; Focus on critical areas; Focus on connections; Chapter 2: Number and Quantity; The Real Number System; Extend the properties of exponents to rational exponents; Use properties of rational and irrational numbers QuantitiesReason quantitatively and use units to solve problems; The Complex Number System; Perform arithmetic operations with complex numbers; Represent complex numbers and their operations on the complex plane; Use complex numbers in polynomial identities and equations; Vector and Matrix Quantities; Represent and model with vector quantities; Perform operations on vectors; Perform operations on matrices and use matrices inapplications; Chapter 3: Algebra; Seeing Structure in Expressions; Interpret the structure of expressions; Write expressions in equivalent forms to solve problems

Arithmetic with Polynomials and Rational ExpressionsPerform arithmetic operations on polynomials; Understand the relationship between zeros and factors of polynomials; Use polynomial identities to solve problems; Rewrite rational expressions; Creating Equations; Create equations that describe numbers or relationships; Reasoning with Equations and Inequalities; Understand solving equations as a process of reasoning and explain the reasoning; Solve equations and inequalities in one variable; Solve systems of equations; Represent and solve equations and inequalities graphically
Chapter 4: FunctionsInterpreting Functions; Understand the concept of a function and use function notation; Interpret functions that arise in applications in terms of the context; Analyze functions using different representations; Building Functions; Build a function that models a relationship between two quantities; Build new functions from existing functions; Linear, Quadratic, and Exponential Models; Construct and compare linear, quadratic, and exponential models and solve problems; Interpret expressions for functions in terms of the situation they model; Trigonometric Functions
Extend the domain of trigonometric functions using the unit circleModel periodic phenomena with trigonometric functions; Prove and apply trigonometric identities; Chapter 5: Geometry; Congruence; Experiment with transformations in the plane; Understand congruence in terms of rigid motions; Prove geometric theorems; Make geometric constructions; Similarity, Right Triangles, and Trigonometry; Understand similarity in terms of similarity transformations; Prove theorems involving similarity; Define trigonometric ratios and solve problems involving right triangles
Apply trigonometry to general triangles

Sommario/riassunto

This close-up look at the structure and content of the Common Core high school mathematics standards is designed to kick off implementation at the classroom level. Teachers will find information on how the mathematical content and practice standards work together across conceptual categories, domains, and grade bands to prepare students for the next level of study, college, or career; practical guidance on lesson planning, including a process for making the best use of the effective instructional strategies explored in Classroom Instruction That Works, 2nd ed.; and sample lessons that illustra