High School—Algebra I (continued)

(4) In this area, students build o

Algebra I

Number and Quantity

The Real Number System (N-RN)

Use properties of rational and irrational numbers

N-RN.3	Explain why: . the sum or product of two rational numbers is rational; . the sum of a rational number and an irrational number is irrational; and . the product of a nonzero rational number and an irrational number is irrational.

Algebra I

	Solve quadratic equations in one variable.
A-REI.4	a. Use the method of completing the square to transform any quadratic equation in x into an equation of the form $(x - p)^2 = q$ that has the same solutions. Derive the quadratic formula from this form. b. Solve quadratic equations by inspection (e.g., for $x^2 = 49$), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions.

Solve systems of equations

A-REI.5	Given a system of two equations in two variables, show and explain m f m eM r