

Florida State Core Curriculum
Standards adopted 2007
Algebra I

Reference	Description	High School Algebra Boardworks presentations
MA.912.A.1.8:	Use the zero product property of real numbers in a variety of contexts to identify solutions to equations.	Factoring Factoring quadratic expressions Quadratic equations and factoring
MA.912.A.2.3:	Describe the concept of a function, use function notation, determine whether a given relation is a function, and link equations to functions.	Non-linear functions Function notation Functions and relations
MA.912.A.2.4:	Determine the domain and range of a relation.	Domain, range and composite functions
MA.912.A.2.13:	Solve real-world problems involving relations and functions.	Problems leading to quadratic equations Real life graphs
MA.912.A.3.1:	Solve linear equations in one variable that include simplifying algebraic expressions.	Solving linear equations Equations with parentheses and fractions Using equations to solve problems
MA.912.A.3.2:	Identify and apply the distributive, associative, and commutative properties of real numbers and the properties of equality.	Calculating with integers Multiplying parentheses The distributive property
MA.912.A.3.3:	Solve literal equations for a specified variable.	Equations, formulas and identities Solving linear equations Equations with parentheses and fractions Using equations to solve problems Substituting into formulas Formula problems Rearranging a formula Manipulating formulas Generating formulas
MA.912.A.3.4:	Solve and graph simple and compound inequalities in one variable and be able to justify each step in a solution.	Inequalities Solving linear inequalities Inequalities and regions Inequalities in two variables

MA.912.A.3.5:	Symbolically represent and solve multi-step and real-world applications that involve linear equations and inequalities.	Equations, formulas and identities Solving linear equations Equations with parentheses and fractions Using equations to solve problems Substituting into formulas Formula problems Rearranging a formula Manipulating formulas Generating formulas Inequalities Solving linear inequalities Inequalities and regions Inequalities in two variables
MA.912.A.3.7:	Rewrite equations of a line into slope-intercept form and standard form.	Slopes and intercepts Coordinate geometry The equation of a straight line
MA.912.A.3.8:	Graph a line given any of the following information: a table of values, the x- and y-intercepts, two points, the slope and a point, the equation of the line in slope-intercept form, standard form, or point-slope form .	Slopes and intercepts Coordinate geometry The equation of a straight line
MA.912.A.3.9:	Determine the slope, x-intercept, and y-intercept of a line given its graph, its equation, or two points on the line.	Slopes and intercepts Coordinate geometry The equation of a straight line
MA.912.A.3.10:	Write an equation of a line given any of the following information: two points on the line, its slope and one point on the line, or its graph. Also, find an equation of a new line parallel to a given line, or perpendicular to a given line, through a given point on the new line.	Parallel and perpendicular lines The equation of a straight line
MA.912.A.3.11:	Write an equation of a line that models a data set, and use the equation or the graph to make predictions. Describe the slope of the line in terms of the data, recognizing that the slope is the rate of change.	Scatter plots Lines of best fit

MA.912.A.3.12:	Graph a linear equation or inequality in two variables with and without graphing technology. Write an equation or inequality represented by a given graph.	Inequalities Solving linear inequalities Inequalities and regions Inequalities in two variables Linear graphs Slopes and intercepts Parallel and perpendicular lines
MA.912.A.3.13:	Use a graph to approximate the solution of a system of linear equations or inequalities in two variables with and without technology.	Systems of equations and graphs The elimination method for systems of equations The substitution method for systems of equations Problems leading to systems of equations
MA.912.A.3.14:	Solve systems of linear equations and inequalities in two and three variables using graphical, substitution, and elimination methods.	Systems of equations and graphs The elimination method for systems of equations The substitution method for systems of equations Problems leading to systems of equations
MA.912.A.3.15:	Solve real-world problems involving systems of linear equations and inequalities in two and three variables.	Systems of equations and graphs The elimination method for systems of equations The substitution method for systems of equations Problems leading to systems of equations
MA.912.A.4.1:	Simplify monomials and monomial expressions using the laws of integral exponents.	Exponents Zero, negative and fractional exponents
MA.912.A.4.2:	Add, subtract, and multiply polynomials.	Operations with polynomials Dividing polynomials The factor theorem
MA.912.A.4.3:	Factor polynomial expressions.	Factoring Factoring quadratic expressions Quadratic equations and factoring
MA.912.A.4.4:	Divide polynomials by monomials and polynomials with various techniques, including synthetic division.	Dividing polynomials The factor theorem
MA.912.A.5.1:	Simplify algebraic ratios. [Simplify refers to using the rules of arithmetic and algebra to rewrite an expression as simply as possible.]	Algebraic fractions
MA.912.A.5.4:	Solve algebraic proportions.	Algebraic fractions
MA.912.A.6.1:	Simplify radical expressions	Radicals Manipulating radicals

MA.912.A.6.2:	Add, subtract, multiply, and divide radical expressions (square roots and higher).	Radicals Manipulating radicals
MA.912.A.7.1:	Graph quadratic equations with and without graphing technology.	Graphs of quadratic functions
MA.912.A.7.2:	Solve quadratic equations over the real numbers by factoring and by using the quadratic formula.	Factoring Factoring quadratic expressions Quadratic equations and factoring The quadratic formula Solving quadratic equations
MA.912.A.7.8:	Use quadratic equations to solve real-world problems.	Problems leading to quadratic equations
MA.912.A.7.10:	Use graphing technology to find approximate solutions of quadratic equations.	Solving quadratic equations Graphs of quadratic functions
MA.912.A.10.1:	Use a variety of problem-solving strategies, such as drawing a diagram, making a chart, guessing- and-checking, solving a simpler problem, writing an equation, working backwards, and creating a table.	Using equations to solve problems Using graphs to solve equations Solving equations by trial and error
MA.912.A.10.2:	Decide whether a solution is reasonable in the context of the original situation.	Using equations to solve problems Using graphs to solve equations Solving equations by trial and error
MA.912.A.10.3:	Decide whether a given statement is always, sometimes, or never true (statements involving linear or quadratic expressions, equations, or inequalities, rational or radical expressions, or logarithmic or exponential functions).	Solving linear equations Solving linear inequalities Solving quadratic inequalities Solving quadratic equations Exponentials and logarithms Simplifying rational functions
MA.912.D.7.1:	Perform set operations such as union and intersection, complement, and cross product.	Probability notation
MA.912.D.7.2:	Use Venn diagrams to explore relationships and patterns and to make arguments about relationships between sets.	Probabilities from tables and Venn diagrams Probability notation
MA.912.G.1.4:	Use coordinate geometry to find slopes, parallel lines, perpendicular lines, and equations of lines.	Parallel and perpendicular lines Coordinate geometry The equation of a straight line