



# DESTINATION Math<sup>®</sup>

**Correlation of Destination Math<sup>®</sup> Courseware  
(Mastering Algebra: Course I)  
to Florida Sunshine State Standards  
and Grade Level Expectations  
2003**



Mastering Algebra: Course I / Module 1: The Language of Algebra

Sunshine State Standards: Grade Level Expectation	Unit: Variables, Expressions, and Equations	Learning Objectives in Tutorial
<p><b>Benchmark MA. D. 2.3.1</b> GLE Sixth</p> <ul style="list-style-type: none"> <li>• Uses variables to represent numbers and relationships. (obj. 1, 2)</li> <li>• Translates verbal expressions into algebraic expressions. (obj. 3)</li> <li>• Translates simple algebraic expressions, equations or formulas representing real-world relationships into verbal expressions or sentences. (obj. 1, 2, 3)</li> </ul> <p>Seventh</p> <ul style="list-style-type: none"> <li>• Translates verbal expressions into algebraic expressions. (obj. 1)</li> <li>• Translates simple algebraic expressions, equations or formulas representing real-world relationships into verbal expressions or sentences. (obj. 1)</li> </ul> <p>Eighth</p> <ul style="list-style-type: none"> <li>• Translates verbal expressions into algebraic expressions, equations, and inequalities. (obj. 1)</li> </ul>	Translating Words into Expressions	<ol style="list-style-type: none"> <li>1. Recognizing the various representations of an algebraic relationship</li> <li>2. Identifying the meaning of a variable in a given situation</li> <li>3. Writing equivalent algebraic expressions for verbal phrases</li> </ol>
<p><b>Benchmark MA. A. 3.3.1</b> GLE Sixth</p> <ul style="list-style-type: none"> <li>• Knows and applies the commutative, associative, and distributive properties in the addition and multiplication of rational numbers. (obj. 1, 2, 3)</li> </ul> <p>Seventh</p> <ul style="list-style-type: none"> <li>• Applies the properties of rational numbers to solve problems (commutative, associative, distributive, identity, equality, inverse). (obj. 1, 2, 3)</li> </ul> <p>Eighth</p> <ul style="list-style-type: none"> <li>• Applies the properties of real numbers to solve problems (commutative, associate, distributive, identity, equality, inverse, and closure). (obj. 1, 2, 3)</li> </ul>	Applying Properties of Real Numbers	<ol style="list-style-type: none"> <li>1. Applying the commutative properties of addition and multiplication</li> <li>2. Applying the associative properties of addition and multiplication</li> <li>3. Applying the distributive property of multiplication over addition</li> </ol>
<p><b>Benchmark MA. D. 2.3.1</b> GLE Eighth</p> <ul style="list-style-type: none"> <li>• Solves single-and multiple-step linear equations and inequalities in concrete or abstract form. (obj. 2)</li> </ul> <p><b>Benchmark MA. D. 2.3.2</b> GLE Seventh</p> <ul style="list-style-type: none"> <li>• Simplifies algebraic expressions with one variable. (obj. 2)</li> </ul> <p>Eighth</p> <ul style="list-style-type: none"> <li>• Simplifies algebraic expressions with a maximum of two variables. (obj. 2)</li> </ul>	Evaluating And Simplifying Expressions	<ol style="list-style-type: none"> <li>1. Combining like terms using the properties of real numbers</li> <li>2. Evaluating expressions and formulas for given values of one or more variables</li> </ol>

Mastering Algebra: Course I / Module 1: The Language of Algebra

Sunshine State Standards: Grade Level Expectation	Unit: Linear Equations in one Variable	Learning Objectives in Tutorial
<p><b>Benchmark MA. A. 3.3.2</b> GLE Seventh</p> <ul style="list-style-type: none"> <li>• Applies order of operation to solve problems (parentheses, exponents, multiplication, division, addition, and subtraction. (obj. 1, 2, 4)</li> <li>• Knows the appropriate operations to solve real-world problems involving integers, ratios, rates, and proportions, numbers expressed as percents, decimals, and fractions. (obj. 2, 3, 4)</li> </ul>	<p>Applying Inverse Operations</p>	<ol style="list-style-type: none"> <li>1. Exploring the addition, subtraction, multiplication, and division properties of equality</li> <li>2. Applying the addition and subtraction properties of equality to solve one-step equations</li> <li>3. Verifying by substitution that the solution to an equation is valid</li> <li>4. Applying the multiplication and division properties of equality to solve one-step equations</li> <li>5. Rewriting formulas for specific variables</li> </ol>
<p><b>Benchmark MA. A. D. 2.3.1</b> GLE Seventh</p> <ul style="list-style-type: none"> <li>• Given an algebraic equation or expression of a real-world application, substitutes integral values for variables and simplifies the results. (obj. 1, 2)</li> </ul> <p><b>Eighth</b></p> <ul style="list-style-type: none"> <li>• Translates verbal expressions and sentences into algebraic expressions, equations, and inequalities. (obj. 1, 2)</li> </ul>	<p>Transforming Equations Using Multiple Operations</p>	<ol style="list-style-type: none"> <li>1. Solving equations of the form <math>ax + b = c</math></li> <li>2. Solving equations of the form <math>a(x + b) = c(x + d)</math></li> </ol>
<p><b>Benchmark MA. A. 1. 3. 4</b> GLE Eighth</p> <ul style="list-style-type: none"> <li>• Identifies and explains the absolute value of a number. (obj. 1)</li> </ul>	<p>Solving Absolute Value Equations</p>	<ol style="list-style-type: none"> <li>1. Exploring the meaning of the geometric definition of absolute value</li> <li>2. Applying the geometric definition of absolute value to solve absolute value equations</li> <li>3. Exploring the meaning of the algebraic definition of absolute value</li> <li>4. Applying the algebraic definition of absolute value to solve absolute value equations</li> </ol>

Mastering Algebra: Course I / Module 2: Linear Functions and Equations

Sunshine State Standards: Grade Level Expectation	Unit: The Rectangular Coordinate Plane	Learning Objectives in Tutorial
<p><b>Benchmark MA. C. 3.3.2</b> GLE Sixth</p> <ul style="list-style-type: none"> <li>Plots specific points in the first quadrant of the Cartesian coordinate system. (obj. 1)</li> </ul> <p>Seventh</p> <ul style="list-style-type: none"> <li>Identifies and plots ordered pairs of all four quadrants of the coordinate plane. (obj. 3)</li> </ul> <p>Eighth</p> <ul style="list-style-type: none"> <li>Given the graph of a linear relationship, applies and explains the simple properties of lines on a graph, including parallelism, perpendicularity, and identifying the x and y intercepts, the midpoint of a horizontal or vertical line segment, and the intersection point of two lines. (obj. 1, 3)</li> </ul>	<p>Graphing Ordered Pairs</p>	<ol style="list-style-type: none"> <li>Reading the coordinates of a point from a graph</li> <li>Creating valid scales to graph sets of data</li> <li>Recognizing types of correlation given a set of ordered pairs</li> </ol>
<p><b>Benchmark MA. C. 3.3.2</b> GLE Eighth</p> <ul style="list-style-type: none"> <li>Reads and analyzes, and describes graphs of linear relationships. (obj. 3)</li> </ul>	<p>Defining Slope</p>	<ol style="list-style-type: none"> <li>Determining the rise and run between a pair of points</li> <li>Defining the slope, <math>m</math>, as the ratio of rise over run</li> <li>Calculating the slope of a non-vertical line given the coordinates of any two points on the line</li> <li>Recognizing how the sign of the slope of a line determines how the line lies in the plane</li> <li>Determining the slope of a horizontal line</li> <li>Examining why vertical lines have undefined slopes</li> </ol>
<p><b>Benchmark MA. C. 3.3.2</b> GLE Eighth</p> <ul style="list-style-type: none"> <li>Reads and analyzes, and describes graphs of linear relationships. (obj. 1)</li> </ul>	<p>Finding x- and y- Intercepts</p>	<ol style="list-style-type: none"> <li>Identifying the horizontal and vertical intercepts of a line</li> <li>Investigating the meaning of the x- and y-intercepts</li> <li>Determining if three or more points are collinear</li> <li>Interpreting the meaning of a broken line graph</li> </ol>

Mastering Algebra: Course I / Module 2: Linear Functions and Equations

Sunshine State Standards: Grade Level Expectations	Unit: Introduction to Functions	Learning Objectives in Tutorial
<p><b>Benchmark MA. D. 1.3.2.</b> GLE Sixth</p> <ul style="list-style-type: none"> <li>• Interprets and creates function tables and graphs.</li> <li>• Substitutes values of variables in expressions and describes the results or patterns observed.</li> <li>• Graph functions from function tables to explain cause-and-effect relationships.</li> </ul> <p>Seventh</p> <ul style="list-style-type: none"> <li>• Interprets and creates tables, function tables, and graphs</li> <li>• Writes expressions and equations to describe relationships</li> </ul> <p>Eighth</p> <ul style="list-style-type: none"> <li>• Interprets and creates tables, function tables, and graphs. (obj. 1)</li> <li>• Writes expressions and equations to describe relationships. (obj. 6)</li> </ul>	<p>Exploring the Slope-Intercept Equations of a Line</p>	<ol style="list-style-type: none"> <li>1. Expressing the relationship between <math>x</math> and <math>y</math> as an equation given a table of values, <math>b = 0</math></li> <li>2. Recognizing that the value of the slope of a non-vertical line is the coefficient of <math>x</math> in the equation <math>y = mx</math></li> <li>3. Recognizing the value of the <math>y</math>-intercept of a line as the constant <math>b</math> in the equation <math>y = mx + b</math></li> <li>4. Writing the equation of a line given its graph through the origin and the coordinates of a second point on the line</li> <li>5. Graphing a line given its equation in the form <math>y = mx + b</math>, <math>b \neq 0</math></li> <li>6. Writing the equation of a line in slope-intercept form given the graph of a non-vertical line and the coordinates of the <math>y</math>-intercept and a second point on the line</li> </ol>
<p><b>Benchmark MA. C. 3.3.2</b> GLE Eighth</p> <ul style="list-style-type: none"> <li>• Reads and analyzes, and describes graphs of linear relationships. (obj. 4)</li> </ul> <p><b>Benchmark MA. D. 1.3.2.</b> GLE Sixth</p> <ul style="list-style-type: none"> <li>• Interprets and creates function tables and graphs.</li> <li>• Substitutes values of variables in expressions and describes the results or patterns observed. (obj. 4)</li> <li>• Graph functions from function tables to explain cause-and-effect relationships. (obj. 1, 5)</li> </ul> <p>Seventh</p> <ul style="list-style-type: none"> <li>• Interprets and creates tables, function tables, and graphs. (obj. 1, 2, 4, 5)</li> </ul> <p>Eighth</p> <ul style="list-style-type: none"> <li>• Interprets and creates tables, function tables, and graphs. (obj. 2)</li> </ul>	<p>Exploring the Point-Slope Equation of a Line</p>	<ol style="list-style-type: none"> <li>1. Finding the coordinates of a point on a line given the slope and the coordinates of one point on the line</li> <li>2. Finding the value of the <math>y</math>-intercept given the slope of a line and the coordinates of a point on the line</li> <li>3. Using the definition of the slope of a non-vertical line, express the equation of a line in the form <math>(y - y_1) = m(x - x_1)</math></li> <li>4. Identifying the slope and the coordinates of a point on the line given an equation of the form <math>(y - y_1) = m(x - x_1)</math></li> <li>5. Graphing a line given its equation in the form <math>(y - y_1) = m(x - x_1)</math></li> </ol>

Mastering Algebra: Course I / Module 2: Linear Functions and Equations

Sunshine State Standards: Grade Level Expectations	Unit: Introduction to Functions	Learning Objectives in Tutorial
<p><b>Benchmark MA. D. 1.3.2.</b>  <b>GLE</b>  <b>Sixth</b></p> <ul style="list-style-type: none"> <li>• Interprets and creates function tables and graphs. (obj. 15)</li> <li>• Substitutes values of variables in expressions and describes the results or patterns observed. (obj. 4)</li> <li>• Graph functions from function tables to explain cause-and-effect relationships. (obj. 6)</li> </ul> <p><b>Seventh</b></p> <ul style="list-style-type: none"> <li>• Interprets and creates tables, function tables, and graphs. (obj. 1)</li> </ul> <p><b>Eighth</b></p> <ul style="list-style-type: none"> <li>• Interprets and creates tables, function tables, and graphs. (obj. 1, 5)</li> </ul>	<p>Relations and Functions</p>	<ol style="list-style-type: none"> <li>1. Defining a function</li> <li>2. Defining the domain and range of a function</li> <li>3. Expressing equations of lines as functions</li> <li>4. Evaluating <math>f(x)</math> for a given function <math>f</math> and values of <math>x</math></li> <li>5. Analyzing the domain and range of the absolute value function</li> <li>6. Defining a relation</li> </ol>

Mastering Algebra: Course I / Module 3: Systems of Linear Equations

Sunshine State Standards: Grade Level Expectations	Unit: Graphic Solutions of Linear Systems	Learning Objectives in Tutorial
<p><b>Benchmark MA. D. 1.3.2.</b> GLE Sixth</p> <ul style="list-style-type: none"> <li>• Interprets and creates function tables and graphs. (obj. 1, 2)</li> <li>• Substitutes values of variables in expressions and describes the results or patterns observed. (obj. 1, 2)</li> <li>• Graph functions from function tables to explain cause-and-effect relationships. (obj. 4)</li> </ul> <p>Seventh</p> <ul style="list-style-type: none"> <li>• Interprets and creates tables, function tables, and graphs. (obj. 1)</li> </ul>	Finding Points of Intersection	<ol style="list-style-type: none"> <li>1. Solving a linear system by finding the coordinates of the point of intersection of the graphs of the system</li> <li>2. Verifying by substitution that the coordinates of the point of intersection of two non-vertical lines satisfy the equations of each line</li> <li>3. Recognizing that a graph of a system of linear equations is not an image of the real-life situation it represents</li> <li>4. Solving equations in one variable by expressing each side as a function and graphing the system</li> </ol>
<p><b>Benchmark MA. C. 3.3.2</b> GLE Sixth</p> <ul style="list-style-type: none"> <li>• Plots specific points in the first quadrant of the Cartesian coordinate system. (obj. 5)</li> </ul> <p>Eighth</p> <ul style="list-style-type: none"> <li>• Given the graph of a linear relationship, applies and explains the simple properties of lines on a graph, including parallelism, perpendicularity, and identifying the x and y intercepts, the midpoint of a horizontal or vertical line segment, and the intersection point of two lines. (obj. 1, 3, 4, 5)</li> </ul>	Graphing Parallel and Perpendicular Lines	<ol style="list-style-type: none"> <li>1. Verifying that the slopes of perpendicular lines are negative reciprocals</li> <li>2. Confirming that if the product of the slopes of two non-vertical lines is -1, the lines are perpendicular</li> <li>3. Verifying that if two non-vertical lines are parallel, their slopes are equal</li> <li>4. Confirming that if the slopes of two lines are equal, the lines are parallel</li> <li>5. Justifying by graphing that a linear system consisting of parallel lines has no solution</li> </ol>
Sunshine State Standards: Grade Level Expectations	Unit: Algebraic Solutions of Linear Systems	Learning Objectives in Tutorial
<p><b>Benchmark MA. D. 2.3.2</b> GLE Seventh</p> <ul style="list-style-type: none"> <li>• Simplifies algebraic expressions with one variable. (obj. 1, 2)</li> </ul> <p>Eighth</p> <ul style="list-style-type: none"> <li>• Simplifies algebraic expressions with a maximum of two variables. (obj. 1, 2)</li> <li>• Solves single-and multi-step linear equations and inequalities that represent real-world situations. (obj. 3)</li> </ul>	Using Substitutions to Eliminate a Variable	<ol style="list-style-type: none"> <li>1. Using substitution to eliminate one variable when both equations of the system are expressed in terms of one of the two variables</li> <li>2. Using substitution to eliminate one variable when one or both equations of the system are not expressed in terms of one of the two variables</li> <li>3. Recognizing that the solution (k, q) of a linear system lies on the lines <math>x = k</math> and <math>y = q</math></li> </ol>

Mastering Algebra: Course I / Module 3: Systems of Linear Equations

<p><b>Benchmark MA. D. 2.3.2</b>  <b>GLE</b>  <b>Seventh</b>  <ul style="list-style-type: none"> <li>• Simplifies algebraic expressions with one variable. (obj. 1, 2)</li> </ul> <b>Eighth</b>  <ul style="list-style-type: none"> <li>• Simplifies algebraic expressions with a maximum of two variables. (obj. 1, 2)</li> <li>• Solves single-and multi-step linear equations and inequalities that represent real-world situations. (obj. 1, 2)</li> </ul> </p>	<p>Using Addition or Subtraction to Eliminate a Variable</p>	<ol style="list-style-type: none"> <li>1. Using addition and subtraction to eliminate one variable in a system of equations</li> <li>2. Using multiplication and addition or subtraction to eliminate one variable in a system of equations</li> </ol>
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Mastering Algebra: Course I / Module 4: Linear Inequalities

Sunshine State Standards: Grade Level Expectations	Unit: Inequalities in One Variable	Learning Objectives in Tutorial
<p><b>Benchmark MA. D. 2.3.2</b> GLE Seventh</p> <ul style="list-style-type: none"> <li>Simplifies algebraic expressions with one variable (obj. 1)</li> </ul> <p><b>Eighth</b></p> <ul style="list-style-type: none"> <li>Simplifies algebraic expressions with a maximum of two variables. (obj. 1)</li> <li>Solves single-and multi-step linear equations and inequalities that represent real-world situations. (obj. 3)</li> </ul>	Applying Inverse Operations	<ol style="list-style-type: none"> <li>Isolating the variable in an inequality involving one variable using the operations of addition and subtraction</li> <li>Applying the rule regarding sign change when multiplying or dividing by a negative number</li> <li>Using two or more transformations to solve an inequality</li> </ol>
<p><b>Benchmark MA. D. 1.3.2</b> GLE Eighth</p> <ul style="list-style-type: none"> <li>Writes equations and inequalities to express relationships. (obj. 4)</li> </ul> <p><b>Benchmark MA. D. 2.3.1</b> GLE Seventh</p> <ul style="list-style-type: none"> <li>Graphs solutions to equations and inequalities on a number line. (obj. 1)</li> </ul>	Graphing Solutions on a Number Line	<ol style="list-style-type: none"> <li>Graphing a simple inequality on a number line</li> <li>Investigating multiple representations of the intersection of inequalities</li> <li>Investigating multiple representations of the union of inequalities</li> <li>Writing an algebraic expression for the graph of a compound inequality</li> </ol>
<p><b>Benchmark MA. D. 1.3.2</b> GLE Eighth</p> <ul style="list-style-type: none"> <li>Writes equations and inequalities to express relationships. (obj. 1, 2)</li> </ul>	Solving Absolute Value Inequalities	<ol style="list-style-type: none"> <li>Writing a compound inequality as an absolute value inequality</li> <li>Representing the graph of a compound inequality as an absolute value inequality</li> <li>Identifying the complement of a given set</li> <li>Graphing the solution set of an absolute value inequality on a number line.</li> <li>Applying the algebraic definition of absolute value to solve an absolute value inequality</li> </ol>
Sunshine State Standards: Grade Level Expectations	Unit: Inequalities in Two Variables	Learning Objectives in Tutorial
<p><b>Benchmark MA. D. 1.3.2</b> GLE Eighth</p> <ul style="list-style-type: none"> <li>Graphs equations and inequalities to explain cause and effect relationships. (obj. 4)</li> </ul>	Graphing Solutions on a Rectangular Coordinate Plane	<ol style="list-style-type: none"> <li>Defining half-planes and boundary lines</li> <li>Identifying the relationship between the ordered pairs in a half-plane</li> <li>Locating a point in a given half-plane</li> <li>Graphing a linear inequality</li> </ol>

Mastering Algebra: Course I / Module 4: Linear Inequalities

<p><b>Benchmark MA. D. 2.3.2</b> <b>GLE</b> <b>Eighth</b> • Solves single-and-multi step linear equations and inequalities that represent real-world situations. (obj. 1, 2, 3)</p>	<p>Solving Systems by Graphing</p>	<ol style="list-style-type: none"><li>1. Solving a system defined by two inequalities</li><li>2. Defining the reasonableness of a solution for a given situation</li><li>3. Writing a system of inequalities that describes the constraints of a linear programming problem</li><li>4. Identifying the feasible region of a linear programming problem</li><li>5. Identifying the maximum/minimum values of the solution of a linear programming problem as the coordinates of the vertices of the feasible region</li></ol>
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