

# LARSON'S *ALGEBRA 1*

correlated to

Georgia's Mathematics Performance Standards

Grade 8



Your Georgia Great Source Representative

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**CORRELATION TO THE GEORGIA PERFORMANCE STANDARDS**

**Subject Area:** Mathematics

**State-Funded Course:** 27.02200 Mathematics/Grade 8

**Textbook Title:** Larson's Algebra 1 Software

**Publisher:** Great Source Education Group

<b><u>Standard</u></b> (Cite Number)	<b><u>Standard</u></b> (Cite specific standard)	<b><u>Where Taught</u></b> (If print component, cite page number; if non-print, cite appropriate location.)
<b>M8N</b>	<b><u>Numbers and Operations:</u></b> Students will understand the numeric and geometric meaning of square root, apply properties of integer exponents, and use scientific notation.	<b>Module:</b> Algebra and Expressions, <b>Topic:</b> Exponents and Powers <b>Module:</b> Exponents and Exponential Functions, <b>Topics:</b> Multiplication Properties of Exponents, Zero and Negative Exponents, Division Properties of Exponents, Scientific Notation, and Scientific Notation: Multiplying and Dividing <b>Module:</b> Quadratic Equations, <b>Topics:</b> Writing Square Roots and Simplifying Radicals <b>Module:</b> Radicals and Functions, <b>Topic:</b> Operations with Radical Expressions
<b>M8N1</b>	Students will understand different representations of numbers including square roots, exponents, and scientific notation.	<b>Module:</b> Algebra and Expressions, <b>Topic:</b> Exponents and Powers <b>Module:</b> Exponents and Exponential Functions, <b>Topics:</b> Multiplication Properties of Exponents, Zero and Negative Exponents, Division Properties of Exponents, Scientific Notation, and Scientific Notation: Multiplying and Dividing <b>Module:</b> Quadratic Equations, <b>Topics:</b> Writing Square Roots and Simplifying Radicals <b>Module:</b> Radicals and Functions, <b>Topic:</b> Operations with Radical Expressions
<b>M8G</b>	<b><u>Geometry:</u></b> Students will use and apply geometric properties of plane figures, including congruence and the Pythagorean theorem.	<b>Module:</b> Systems of Linear Equations and Inequalities, <b>Topic:</b> Solutions of Linear Systems <b>Module:</b> Algebraic Connections to Geometry, <b>Topics:</b> Equations of Perpendicular Lines, The Pythagorean Theorem and Its Converse, and The Triangle Inequality
<b>M8G1</b>	Students will understand and apply the properties of parallel and perpendicular lines and understand the meaning of congruence.	<b>Module:</b> Systems of Linear Equations and Inequalities, <b>Topic:</b> Solutions of Linear Systems <b>Module:</b> Algebraic Connections to Geometry, <b>Topic:</b> Equations of Perpendicular Lines
<b>M8G2</b>	Students will understand and use the Pythagorean theorem.	<b>Module:</b> Algebraic Connections to Geometry, <b>Topic:</b> The Pythagorean Theorem and Its Converse

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<b>M8A</b>	<b>Algebra:</b> Students will use linear algebra to represent, analyze and solve problems. They will use equations, tables, and graphs to investigate linear relations and functions, paying particular attention to slope as a rate of change.	<b>Module:</b> Algebra and Expressions, <b>All Topics</b> <b>Module:</b> Basics of Algebra, <b>All Topics</b> <b>Module:</b> Functions and Graphs, <b>All Topics</b> <b>Module:</b> Solving Linear Equations, <b>All Topics</b> <b>Module:</b> Graphing Linear Equations, <b>All Topics</b> <b>Module:</b> Writing Linear Equations, <b>All Topics</b> <b>Module:</b> Solving and Graphing Linear Inequalities, <b>All Topics</b> <b>Module:</b> Systems of Linear Equations and Inequalities, <b>All Topics</b>
<b>M8A1</b>	Students will use algebra to represent, analyze, and solve problems.	<b>Module:</b> Algebra and Expressions, <b>All Topics</b> <b>Module:</b> Basics of Algebra, <b>Topic:</b> Equations and Translating Verbal Expressions, Equations, and Inequalities <b>Module:</b> Solving Linear Equations, <b>All Topics</b>
<b>M8A2</b>	Students will understand and graph inequalities in one variable.	<b>Module:</b> Basics of Algebra, <b>Topic:</b> Inequalities and Translating Verbal Expressions, Equations, and Inequalities <b>Module:</b> Solving and Graphing Linear Inequalities, <b>All Topics</b>
<b>M8A3</b>	Students will understand relations and linear functions.	<b>Module:</b> Functions and Graphs, <b>All Topics</b>
<b>M8A4</b>	Students will graph and analyze graphs of linear equations.	<b>Module:</b> Functions and Graphs, <b>All Topics</b> <b>Module:</b> Graphing Linear Equations, <b>All Topics</b>
<b>M8A5</b>	Students will understand systems of linear equations and use them to solve problems.	<b>Module:</b> Systems of Linear Equations and Inequalities, <b>All Topics</b>
<b>M8D</b>	<b>Data Analysis and Probability:</b> Students will use and understand set theory and simple counting techniques; determine the theoretical probability of simple events; and make inferences from data, particularly data that can be modeled by linear functions.	Not covered

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<b>M8D1</b>	Students will apply basic concepts of set theory.	Not covered
<b>M8D2</b>	Students will determine the number of outcomes related to a given event.	Not covered
<b>M8D3</b>	Students will use the basic laws of probability.	Not covered
<b>M8D4</b>	Students will organize, interpret, and make inferences from statistical data.	Not covered
<b>M8P</b>	<b>Process Standards:</b> The following process standards are essential to mastering each of the mathematics content standards. They emphasize critical dimensions of the mathematical proficiency that all students need.	All topics
<b>M8P1</b>	Students will solve problems (using appropriate technology).	All topics
<b>M8P2</b>	Students will reason and evaluate mathematical arguments.	All topics
<b>M8P3</b>	Students will communicate mathematically.	All topics
<b>M8P4</b>	Students will make connections among mathematical ideas and to other disciplines	All topics
<b>M8P5</b>	Students will represent mathematics in multiple ways.	All topics



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