

Knowre Math: Algebra 2 Curriculum

Chapter 1 Solving Linear Equations and Inequalities

Lesson	Topic	Georgia K-12
1-1 Solving Linear Equations	A) Solving Multi-Step Equations	7.PAR.3.1
	B) Solving Equations with Rational Coefficients	
	C) Solving Proportions	
1-2 Solving Literal Equations	A) Solving One-Step and Two-Step Literal Equations	8.PAR.3.5,
	B) Solving Multi-Step Literal Equations	8.PAR.3.6
1-3 Solving Absolute Value Equations	A) Solving Absolute Value Equations with Single Variable Inside Absolute Value	8.PAR.3.3
	B) Solving Absolute Value Equations with Linear Expression Inside Absolute Value	
	C) Solving Absolute Value Equations with Variables on Both Sides	
1-4 Solving Linear Inequalities	A) Solving One-Step and Two-Step Linear Inequalities	AA.MM.1.1,
	B) Solving Multi-Step Linear Inequalities	AA.MM.1.2,
	C) Graphing the Solution of Linear Inequalities	AA.MM.1.4
1-5 Solving Compound Inequalities	A) Graphing Compound Inequalities	AA.MM.1.1,
	B) Solving Compound Inequalities	AA.MM.1.2, AA.MM.1.4
1-6 Solving Absolute Value Inequalities	A) Absolute Value Inequalities with Absolute Value Isolated	AA.MM.1.1,
	B) Solving Multi-Step Absolute Value Inequalities	AA.MM.1.2,
	C) Solving Absolute Value Inequalities with Variables on Both Sides	AA.MM.1.4

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Chapter 2 Linear Functions and Inequalities

Lesson	Topic	Georgia K-12
2-1 Interval Notation	A) Writing Interval Notation Given Graphs or Inequalities	A.FGR.2.3
	B) Using Interval Notation to Graph	
2-2 Functions	A) Identifying Functions	A.FGR.2.3
	B) Domain and Range of Discrete Functions	
	C) Domain and Range of Continuous Functions	
2-3 Function Notation	A) Writing Function Notation	A.FGR.2.4
	B) Input and Output in Function Notation	
	C) Evaluating and Solving Equations Written with Function Notation	
2-4 Linear Functions	A) Graphing Linear Functions	AA.MM.1.1,
	B) Writing Equations of Linear Functions	AA.MM.1.2, AA.MM.1.4
2-5 Parallel and Perpendicular Lines	A) Parallel Lines	A.FGR.2.2,
	B) Perpendicular Lines	A.GSR.3.1
2-6 Piecewise Functions	A) Equations and Graphs of Piecewise Functions	AA.MM.1.1, AA.MM.1.2, AA.MM.1.4
	B) Evaluating Floor and Ceiling Functions	
	C) Equations and Graphs of Floor and Ceiling Functions	
2-7 Transformations of Absolute Value Functions	A) Graphing the Absolute Value Parent Function	AA.MM.1.1, AA.MM.1.2, AA.MM.1.4
	B) Absolute Value Functions and Translations	
	C) Absolute Value Functions and Reflections	
	D) Absolute Value Functions and Dilations	
	E) Absolute Value Functions and Transformations	
	F) Writing Equations of Transformed Absolute Value Functions	
2-8 Linear Inequalities	A) Solutions of Two-Variable Inequalities	AA.MM.1.1,
	B) Graphing Linear Inequalities	AA.MM.1.2,
	C) Writing Equations of Linear Inequalities	AA.MM.1.4

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Chapter 3 Systems of Equations and Inequalities

Lesson	Topic	Georgia K-12
3-1 Systems of Equations with Two Variables	A) Solutions of Systems of Linear Equations	AA.MM.1.1, AA.MM.1.2, AA.MM.1.4
	B) Solving Systems of Linear Equations	AA.MM.1.4
3-2 Systems of Inequalities	A) Solutions of Systems of Linear Inequalities	AA.MM.1.1, AA.MM.1.2, AA.MM.1.4
	B) Graphing Systems of Linear Inequalities	AA.MM.1.2, AA.MM.1.4
	C) Writing Systems of Linear Inequalities	AA.MM.1.4
3-3 Linear Programming	A) Feasible Regions in Linear Programming	AA.MM.1.1, AA.MM.1.2, AA.MM.1.4, AA.PAR.6.4
	B) Maximum and Minimum Values of Objective Functions	AA.MM.1.4, AA.PAR.6.4
3-4 Substitution to Solve Systems of Equations with Three Variables	A) Solutions of Systems of Linear Equations with Three Variables	
	B) Substitution to Solve Systems of Linear Equations with Three Variables Given Values	8.FGR.7.1, 8.FGR.7.4, 8.FGR.7.5
	C) Substitution to Solve Systems of Linear Equations with Three Variables	
3-5 Elimination to Solve Systems of Equations with Three Variables	A) Writing Three-Variable Equations with Two Variables	AA.MM.1.1, AA.MM.1.2, AA.MM.1.4
	B) Elimination to Solve Systems of Linear Equations with Three Variables	AA.MM.1.4

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Chapter 4 Exponents and Roots

Lesson	Topic	Georgia K-12
4-1 Exponent Properties	A) Simplifying Zero and Negative Powers	8.NR.2.1
	B) Product of Powers Property of Exponents	
	C) Quotient of Powers Property of Exponents	
	D) Power Property of Exponents	
4-2 Combining Exponent Properties	A) Product and Quotient of Powers Properties to Multiply and Divide	8.NR.2.1
	B) Combining Power of a Product, Power of a Quotient, and Power of a Power	
4-3 Simplifying Square Roots	A) Simplifying Square Root Expressions with Natural Radicands	8.NR.2.1
	B) Simplifying Square Roots with Variable Powers in the Radicand	
	C) Simplifying Square Roots with Variable Expressions in the Radicand	
4-4 Operations with Square Roots	A) Adding and Subtracting Square Roots	8.NR.2.1
	B) Products of Square Roots	
	C) Quotients of Square Roots	
	D) Rationalizing Radical Expressions	
4-5 Rational Exponents and nth Roots	A) Writing nth Roots as Rational Exponents	AA.FGR.4.1
	B) Writing Rational Exponents as nth Roots	
	C) Evaluating Powers with Rational Exponents	
4-6 nth Roots of Integers	A) Simplifying nth Roots of Prime Factorized Numbers with Single Bases	AA.FGR.4.1
	B) Simplifying nth Roots of Products of Prime Factors	
	C) Simplifying nth Roots of Integers	
4-7 nth Roots of Variable Expressions	A) Simplifying nth Roots of nth Powers	AA.FGR.4.1
	B) Simplifying Odd nth Roots of Single Variables	
	C) Simplifying Even nth Roots of Single Variables	
	D) Simplifying nth Roots of Variable Expressions	

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Chapter 5 Polynomial Operations and Complex Numbers

Lesson	Topic	Georgia K-12
5-1 Adding, Subtracting, and Multiplying Polynomials	A) Adding and Subtracting Polynomials	G.PAR.2.2, G.PAR.2.3
	B) Using the Distributive Property to Multiply Polynomials	
	C) Special Products of Polynomials	
	D) Product of Multiple Polynomials	
5-2 Factoring Quadratics	A) Factoring Quadratics Whose Leading Coefficient is One	AA.FGR.5.4
	B) Factoring Quadratics Whose Leading Coefficient is Greater Than One	
	C) Factoring Quadratics Whose Leading Coefficient is Negative	
	D) Factoring Quadratics After Factoring Out the GCF	
5-3 Factoring Special Cases	A) Difference of Two Perfect Squares	AA.FGR.5.4, AA.FGR.5.10
	B) Perfect Square Trinomials	
	C) Sum of Difference of Perfect Cubes	
	D) Factoring Special Case Polynomials	
5-4 Factoring Higher Degree Polynomials	A) Using Exponent Properties to Factor Higher Degree Polynomials	AA.FGR.5.10
	B) Using Grouping to Factor Higher Degree Polynomials	
	C) Factoring Trinomials of Degree Three or Greater	
	D) Factoring Higher Degree Polynomials After Factoring Out the GCF or -1	
5-5 Polynomial Long Division	A) Long Division of Polynomials with No Remainders	PC.FGR.2.4
	B) Long Division of Polynomials with Remainders	
5-6 Synthetic Division	A) Setting Up Synthetic Division	PC.FGR.2.4
	B) Different Parts of Synthetic Division	
	C) Synthetic Division of Polynomials	
5-7 Introductions to Imaginary Numbers	A) Simplifying Powers of the Imaginary Unit	AA.FGR.5.2
	B) Multiplying Expressions with Imaginary Units	
	C) Simplifying Square Root Expressions with Negative Radicands	

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Chapter 5 Polynomial Operations and Complex Numbers (cont.)

Lesson	Topic	Georgia K-12
5-8 Operations with Complex Numbers	A) Parts of Complex Numbers	AA.FGR.5.3
	B) Adding and Subtracting Complex Numbers	
	C) Multiplying and Simplifying Expressions with Complex Numbers	
5-9 Conjugates	A) Irrational and Complex Conjugates	AA.FGR.5.2, AA.FGR.5.3
	B) Rationalizing Using Irrational Conjugates	
	C) Rationalizing Using Complex Conjugates	

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Chapter 6 Quadratic Functions and Equations

Lesson	Topic	Georgia K-12
6-1 Transformations of Quadratic Functions	A) Graphing the Quadratic Parent Functions	AA.FGR.5.1
	B) Quadratic Functions and Translations	
	C) Quadratic Functions and Reflections	
	D) Quadratic Functions and Dilations	
	E) Quadratic Functions and Transformations	
	F) Writing Equations of Transformed Quadratic Functions	
6-2 Standard Form of Quadratic Functions	A) Standard Form of Quadratic Functions	AA.MM.1.1,
	B) Features of Quadratic Graphs	AA.MM.1.2,
	C) Features of Quadratic Equations	AA.MM.1.4,
	D) Domain and Range of Quadratic Functions	AA.FGR.5.1, AA.FGR.5.7
6-3 Vertex Form of Quadratic Functions	A) Writing the Vertex Form of Quadratic Functions	AA.FGR.5.1, AA.FGR.5.7
	B) Features of Quadratic Equations in Vertex Form	
	C) Writing Equations of Quadratic Functions in Vertex Form	
6-4 Solving Quadratics by Graphing or Factoring	A) Solutions and x-Intercepts of Quadratic Functions	AA.FGR.5.5, AA.FGR.5.6
	B) Graphing to Solve Quadratic Equations	
	C) Factoring to Solve Quadratic Equations	
6-5 Solving Quadratics by Completing the Square	A) Quadratic Equations with Complex Solutions	AA.MM.1.1,
	B) Completing the Square to Solve Quadratic Equations	AA.MM.1.2, AA.MM.1.4, AA.FGR.5.5
6-6 The Quadratic Formula	A) Writing the Quadratic Formula	AA.FGR.5.5
	B) Solving Quadratic Equations with Real Solutions	
	C) Solving Quadratic Equations with Complex Solutions	
6-7 Discriminants of Quadratic Equations	A) Finding Discriminants	
	B) Solutions of Quadratic Equations and Discriminants	
	C) Number of Solutions and x-Intercepts	
6-8 Quadratic Inequalities	A) Solutions of Quadratic Inequalities	AA.FGR.5.5, AA.FGR.5.7
	B) Solving Quadratic Inequalities	
	C) Graphing Quadratic Inequalities	

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Chapter 7 Polynomial Functions and Equations

Lesson	Topic	Georgia K-12
7-1 Factored Form	A) Zeros of Polynomial Functions in Factored Form	AA.FGR.5.9, AA.FGR.5.11
	B) Writing the Equations of Polynomial Functions Given Zeros or Roots	
	C) Writing the Equations of Polynomial Functions in Factored Form	
7-2 Roots of Polynomial Equations	A) Solutions of Polynomial Equations in Factored Form	AA.FGR.5.8, AA.FGR.5.9, AA.FGR.5.11
	B) Multiplicity of Roots	
	C) Number of Complex Roots	
	D) Complex and Irrational Roots of Polynomial Equations	
7-3 Polynomials with Real and Complex Zeros	A) Writing the Factor Given a Root of a Polynomial	AA.FGR.5.8, AA.FGR.5.9, AA.FGR.5.11
	B) Roots and Factored Form of a Polynomial	
7-4 Roots and the Remainder Theorem	A) Synthetic Division and Factoring	AA.FGR.5.8, AA.FGR.5.9, AA.FGR.5.11
	B) Polynomial Function and the Remainder Theorem	
7-5 End Behavior	A) Classifying Polynomial Graphs	AA.FGR.5.8, AA.FGR.5.9
	B) Graphs of Even and Odd Degree Functions	
	C) Graphs and End Behavior	
7-6 Graphs of Polynomial Functions	A) Real Roots of Polynomial Equations	AA.FGR.5.9
	B) Degree of Polynomial Function and Multiplicity	
	C) Degree of Polynomial Function Given Graph	
	D) Domain and Range of Polynomial Functions	

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Chapter 8 Radical Functions and Equations

Lesson	Topic	Georgia K-12
8-1 Operations of Functions	A) Function Notation	
	B) Operations of Functions Using Coordinate Pairs or Tables	
	C) Operations of Functions Using Graphs	
	D) Operations of Functions Using Equations	
	E) Domain of a Polynomial Sum, Difference, or Product	
8-2 Composition of Functions	A) Equivalent Composition Functions	
	B) Evaluating Composition of Functions	
	C) Input and Output of Composition of Functions	
	D) Domain of Composition of Functions	
8-3 Inverse Relations and Functions	A) Inverse of a Relation	
	B) Graphs of Functions and Their Inverses	
	C) Function Notation and Inverses	
	D) Finding Inverse Functions	
8-4 Transformations of Square Root Functions	A) Graphing the Square Root Parent Function	
	B) Square Root Functions and Translations	
	C) Square Root Functions and Reflections	
	D) Square Root Functions and Dilations	AA.FGR.4.3
	E) Square Root Functions and Transformations	
	F) Writing Equations of Transformed Square Root Functions	
8-5 Domain and Range of Radical Functions	A) Domain of Square Root Functions	
	B) Range of Square Root Functions	AA.FGR.4.3
	C) Domain and Range of Cube Root Functions	
	D) Domain and Range of Radical Functions	
8-6 Solving Radical Equations	A) Solving Radical Equations with Variable on One Side	AA.FGR.4.2, AA.FGR.4.4,
	B) Solving Radical Equations with Variable on Both Sides	AA.FGR.4.5

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Chapter 8 Radical Functions and Equations (cont.)

Lesson	Topic	Georgia K-12
8-7 Solving Equations with Rational Exponents	A) Solving Equations with Rational Exponents - Variable on One Side	AA.FGR.4.1, AA.FGR.4.4, AA.FGR.4.5
	B) Solving Equations with Rational Exponents - Variable on Both Sides	

Chapter 9 Exponential Functions and Equations

Lesson	Topic	Georgia K-12
9-1 Solving Exponential Equations	A) Using Equivalent Bases to Solve Exponential Equations	AA.FGR.3.6
	B) Solving Exponential Equations After Isolating	
	C) Using Equivalent Bases and Negative Exponents to Solve Exponential Equations	
9-2 Exponential Functions	A) Equations and Graphs of Exponential Functions	AA.FGR.3.2, AA.FGR.3.6
	B) Asymptotes	
	C) Domain and Range of Exponential Functions	
	D) Graphing Exponential Functions	
9-3 Transformations of Exponential Functions	A) Exponential Functions and Translations	AA.FGR.3.2, AA.FGR.3.6
	B) Exponential Functions and Reflections	
	C) Exponential Functions and Dilations	
	D) Exponential Functions and Transformations	
	E) Writing Equations of Transformed Exponential Functions	
9-4 Exponential Growth and Decay	A) Classifying Graphs and Equations as Exponential Growth or Decay	AA.MM.1.1, AA.MM.1.2, AA.MM.1.4, AA.FGR.3.2, AA.FGR.3.6
	B) Equations of Exponential Growth or Decay	
	C) Writing and Evaluating Exponential Growth and Decay Equations	

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Chapter 10 Logarithms

Lesson	Topic	Georgia K-12
10-1 Introduction to Logarithms	A) Parts of a Logarithmic Expression or Equation	AA.FGR.3.1, AA.FGR.3.3
	B) Logarithms and Exponential Equations	
	C) Common Logarithm	
	D) Evaluating Logarithms with a Calculator	
10-2 Evaluating Logarithms	A) Evaluating a Logarithm Without Rewriting the Argument or Base	AA.FGR.3.3
	B) Evaluating a Logarithm After Rewriting the Argument or Base	
10-3 Product and Quotient Properties of Logarithms	A) Product Property of Logarithms	AA.FGR.3.3
	B) Quotient Property of Logarithms	
	C) Using the Product or Quotient Property of Logarithms to Approximate	
10-4 Power Property and Change of Base Formula	A) Power Property of Logarithms	AA.FGR.3.3, AA.FGR.3.4
	B) Change of Base Formula	
	C) Using the Power Property of Logarithms to Approximate	
10-5 Solving Basic Logarithmic Equations	A) Using the Property of Equality to Solve Logarithmic Equations	AA.FGR.3.1, AA.FGR.3.3, AA.FGR.3.4, AA.FGR.3.5, AA.FGR.3.7
	B) Solving Logarithmic Equations with Linear Expression in Base or Argument	
	C) Solving Logarithmic Equations After Isolating	
	D) Solving Logarithmic Equations with Logarithm in Base or Argument	
10-6 Solving Logarithmic Equations with Properties	A) Product or Quotient Properties to Solve Logarithmic Equations	AA.FGR.3.3, AA.FGR.3.5, AA.FGR.3.7
	B) Power, Product, and Quotient Properties to Solve Logarithmic Equations	
	C) Change of Base Formula to Solve Exponential Equations	
10-7 Logarithmic Functions	A) Identifying Graphs and Equations of Logarithmic Functions	AA.FGR.3.2, AA.FGR.3.7
	B) Domain and Range of Logarithmic Functions	
	C) Graphing Logarithmic Functions	

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Chapter 10 Logarithms (cont.)

Lesson	Topic	Georgia K-12
10-8 Transformations of Logarithmic Functions	A) Logarithmic Functions and Translations	
	B) Logarithmic Functions and Reflections	
	C) Logarithmic Functions and Dilations	AA.FGR.3.1, AA.FGR.3.2,
	D) Logarithmic Functions and Transformations	AA.FGR.3.7
	E) Writing Equations of Transformed Logarithmic Functions	
10-9 Natural Logarithms	A) Parts of Natural Logarithm	AA.FGR.3.2,
	B) Evaluating Natural Logarithmic Expressions	AA.FGR.3.3,
	C) Solving Natural Logarithmic Equations	AA.FGR.3.5,
	D) Graphs of Natural Logarithmic Functions	AA.FGR.3.7

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Chapter 11 Sequences and Series

Lesson	Topic	Georgia K-12
11-1 Sequences	A) Terms of a Sequence	
	B) Introduction to Arithmetic Sequence	A.FGR.2.1,
	C) Introduction to Geometric Sequence	A.FGR.9.4
	D) Classifying Sequences	
11-2 Arithmetic Sequences	A) Recursive Formula of an Arithmetic Sequence	
	B) Writing and Evaluating Explicit Formula of an Arithmetic Sequence	A.FGR.2.1
	C) Recursive and Explicit Formulas of an Arithmetic Sequence	
11-3 Geometric Sequences	A) Recursive Formula of a Geometric Sequence	
	B) Writing and Evaluating Explicit Formula of a Geometric Sequence	A.FGR.9.4
	C) Recursive and Explicit Formulas of a Geometric Sequence	
11-4 Series and Sigma Notation	A) Sequence and Series	
	B) Parts of Sigma Notation	PC.PAR.7.4
	C) Series and Sigma Notation	
11-5 Arithmetic Series	A) Finite Series of an Arithmetic Sequence	
	B) Writing and Finding the Partial Sum of Arithmetic Sequence or Series	PC.PAR.7.5
	C) Finite Arithmetic Series Written in Sigma Notation	
11-6 Finite Geometric Series	A) Finite Series of a Geometric Sequence	
	B) Writing and Finding the Partial Sum of Geometric Sequence or Series	PC.PAR.7.6
	C) Finite Geometric Series Written in Sigma Notation	
11-7 Infinite Geometric Series	A) Convergent and Divergent Series	
	B) Writing and Evaluating an Infinite Geometric Series	PC.PAR.7.7
	C) Infinite Geometric Series and Sigma Notation	

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Chapter 12 Rational Functions and Equations

Lesson	Topic	Georgia K-12
12-1 Direct and Inverse Variation	A) Direct Variation	AA.MM.1.1, AA.MM.1.2, AA.MM.1.4
	B) Inverse Variation	
12-2 Transformations of Rational Functions	A) Graphing the Rational Parent Function	AA.FGR.8.3
	B) Rational Functions and Translations	
	C) Rational Functions and Reflections	
	D) Rational Functions and Dilations	
	E) Rational Functions and Transformations	
	F) Writing Equations of Transformed Rational Functions	
12-3 Simplifying Rational Expressions	A) Simplifying Factored Rational Expressions	AA.FGR.8.1
	B) Simplifying Rational Expressions After Factoring	
12-4 Multiplying and Dividing Rational Expressions	A) Cross Canceling	AA.FGR.8.2
	B) Simplifying a Product of Rational Expressions	
	C) Simplifying a Quotient of Rational Expressions	
12-5 Adding and Subtracting Rational Expressions	A) Adding and Subtracting Rational Expressions with Same Denominator	AA.FGR.8.2
	B) Least Common Denominator of Rational Expressions	
	C) Adding and Subtracting Rational Expressions with Different Denominators	
12-6 Solving Rational Equations	A) Solving Factored Rational Equations	AA.FGR.8.4
	B) Solving Rational Equations After Factoring	
12-7 Discontinuities in Rational Functions	A) Identifying Equations of Rational Functions	AA.FGR.8.3
	B) Holes and Points of Discontinuity	
	C) Equations of Vertical Asymptotes	
	D) Identifying Holes and Vertical Asymptotes	
12-8 Graphs of Rational Functions	A) Holes, Vertical Asymptotes, and Horizontal Asymptotes	AA.FGR.8.3
	B) Graphing and Identifying Graphs of Rational Functions	
	C) Writing and Identifying Equations of Rational Functions	

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Chapter 13 Trigonometry

Lesson	Topic	Georgia K-12
13-1 Special Right Triangles	A) Side Lengths of 45° - 45° - 90° Triangles	G.GSR.6.1
	B) Side Lengths of 30° - 60° - 90° Triangles	
	C) Using Side Lengths to Find Angle Measures	
13-2 Trigonometric Ratios	A) Using Side Lengths of a Triangle to Write Trigonometric Ratios	G.GSR.6.1, G.GSR.6.3
	B) Trigonometric Ratios of 30° , 45° , and 60° Angles	
	C) Trigonometric Ratios and Angle Measures	
	D) Solving Trigonometric Equations	
13-3 Angles of Rotation	A) Degrees and Radians	G.GSR.7.1, G.GSR.7.2
	B) Angles on a Coordinate Plane	
	C) Locating Angle Measures on a Coordinate Plane	
	D) Drawing Angles on a Coordinate Plane	
13-4 Coterminal and Reference Angles	A) Coterminal Angles	G.GSR.7.3
	B) Reference Angles	
13-5 Trigonometric Functions of All Angles	A) Using the Coordinates of a Point to Find Trigonometric Ratios	AA.GSR.7.2
	B) Using Reference Angles of 30° , 45° , and 60° to Find Trigonometric Ratios	
13-6 The Unit Circle	A) Parts of a Unit Circle	AA.GSR.7.1, AA.GSR.7.2
	B) Completing the Unit Circle	
	C) Using a Unit Circle to Find Trigonometric Ratios	
13-7 Periodic Functions	A) Graphs and Features of Periodic Functions	PC.FGR.3.7
	B) Graphing Periodic Functions	
13-8 Sine and Cosine Functions	A) Amplitudes of Sine and Cosine Functions	PC.FGR.3.7
	B) Reflections of Sine and Cosine Functions	
	C) Periods of Sine and Cosine Functions	
	D) Writing the Equations of Sine and Cosine Functions	
	E) Graphing Sine and Cosine Functions	

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Chapter 13 Trigonometry (cont.)

Lesson	Topic	Georgia K-12
13-9 Tangent Functions	A) Tangent Parent Function	
	B) Vertical Dilations and Reflections of Tangent Functions	
	C) Periods of Tangent Functions	PC.FGR.3.7
	D) Asymptotes of Tangent Functions	
	E) Writing the Equation of Tangent Functions	
	F) Graphing Tangent Functions	
13-10 Translations of Trigonometric Functions	A) Graphs and Equations of Translated Trigonometric Functions	PC.FGR.3.7
	B) Domain and Range of Trigonometric Functions	
13-11 Trigonometric Identities	A) The Tangent Identity	
	B) The Pythagorean Identity	PC.FGR.3.4, PC.AGR.4.1
	C) The Reciprocal Identity	

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Chapter 14 Probability

Lesson	Topic	Georgia K-12
14-1 Factorials and Outcomes	A) Factorials and Operations with Factorials	G.PR.10.1
	B) Tree Diagrams	
	C) Number of Outcomes for Independent and Dependent Events	
14-2 Permutations and Combinations	A) Permutations	G.PR.10.4
	B) Combinations	
	C) Permutation and Combination from Situations	
14-3 Experimental and Theoretical Probability	A) Experimental Probability	G.PR.10.5, G.PR.10.7
	B) Theoretical Probability	
	C) Making Inferences Using Probability	
14-4 Mutually Exclusive Events	A) Probability of an And Event	G.PR.10.1
	B) Probability of Mutually Exclusive Events	
	C) Probability of Not Mutually Exclusive Events	
14-5 Independent Events	A) Independent and Dependent Events	G.PR.10.2
	B) Tree Diagrams and Probability of Independent Events	
	C) Compound Probability of Independent Events	
14-6 Dependent Events	A) Tree Diagrams and Probability of Dependent Events	G.PR.10.2, G.DSR.11.2
	B) Conditional Probability	
	C) Probability of Dependent Events	
14-7 Two-Way Tables	A) Two-Way Tables and Probability	G.PR.10.2, G.DSR.11.1, G.DSR.11.2
	B) Relative Frequency and Probability	
	C) Relative Frequency and Conditional Probability	

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Chapter 15 Statistics

Lesson	Topic	Georgia K-12
15-1 Measures of Center and Spread	A) Measures of Center of a Data Set	AA.MM.1.3
	B) Measures of Spread of a Data Set	
	C) Shape of a Data Set	
15-2 Standard Deviation	A) Standard Deviation of a Data Set	AA.MM.1.3
	B) Shape of a Data Set and Standard Deviation	
15-3 Populations, Samples, and Bias	A) Population, Sample, Parameter, and Statistic	AA.MM.1.3, AA.DSR.2.1, AA.DSR.2.2, AA.DSR.2.3
	B) Survey, Experiment, or Observational Study	
	C) Types of Samples	
	D) Supporting Predictions and Conclusions	
	E) Designing a Study	
15-4 Binomial Theorem	A) Pascal's Triangle and Binomial Expansion	
	B) Combination and Binomial Expansion	
	C) Binomial Theorem	
15-5 Binomial Probability	A) Binomial Experiment	AA.MM.1.3
	B) Finding Binomial Probability	
	C) Binomial Expressions and Distribution Graphs	
15-6 Normal Distribution	A) Normal Distribution Graphs	AA.MM.1.3, AA.DSR.2.5
	B) Normal Distribution Graphs and the Empirical Rule	
15-7 z-Scores	A) Standard Normal Distribution and z-Scores	AA.MM.1.3, AA.DSR.2.4, AA.DSR.2.5
	B) Probability Using z-Tables	