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Chapter 1 Solving Linear Equations and Inequalities

Lesson	Topic	AZ Standards
1-1 Solving Linear Equations	A) Solving Multi-Step Equations	A2.A.CED.1, A2.A.REI.1
	B) Solving Equations with Rational Coefficients	
	C) Solving Proportions	
1-2 Solving Literal Equations	A) Solving One-Step and Two-Step Literal Equations	A1.A.CED.4
	B) Solving Multi-Step Literal Equations	
1-3 Solving Absolute Value Equations	A) Solving Absolute Value Equations with Single Variable Inside Absolute Value	A2.A.CED.1
	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	A2.A.CED.1
	B) Solving Multi-Step Linear Inequalities	
	C) Graphing the Solution of Linear Inequalities	
1-5 Solving Compound Inequalities	A) Graphing Compound Inequalities	A2.A.CED.1
	B) Solving Compound Inequalities	
1-6 Solving Absolute Value Inequalities	A) Absolute Value Inequalities with Absolute Value Isolated	A2.A.CED.1
	B) Solving Multi-Step Absolute Value Inequalities	
	C) Solving Absolute Value Inequalities with Variables on Both Sides	

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Chapter 2 Linear Functions and Inequalities

Lesson	Topic	AZ Standards
2-1 Interval Notation	A) Writing Interval Notation Given Graphs or Inequalities	A1.A.CED.3
	B) Using Interval Notation to Graph	
2-2 Functions	A) Identifying Functions	A1.F.IF.5
	B) Domain and Range of Discrete Functions	
	C) Domain and Range of Continuous Functions	
2-3 Function Notation	A) Writing Function Notation	A1.F.IF.1, A1.F.IF.2
	B) Input and Output in Function Notation	
	C) Evaluating and Solving Equations Written with Function Notation	
2-4 Linear Functions	A) Graphing Linear Functions	A2.F.IF.4, A2.F.IF.6, A2.F.IF.7, A2.F.IF.9
	B) Writing Equations of Linear Functions	
2-5 Parallel and Perpendicular Lines	A) Parallel Lines	A2.F.IF.4, A2.F.IF.6
	B) Perpendicular Lines	
2-6 Piecewise Functions	A) Equations and Graphs of Piecewise Functions	A2.F.IF.4, A2.F.IF.6, A2.F.IF.7, A2.F.IF.9
	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	A2.F.IF.4, A2.F.IF.6, A2.F.IF.7, A2.F.IF.9, A2.F.BF.3
	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	A1.A.CED.3
	B) Graphing Linear Inequalities	
	C) Writing Equations of Linear Inequalities	

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Chapter 3 Systems of Equations and Inequalities

Lesson	Topic	AZ Standards
3-1 Systems of Equations with Two Variables	A) Solutions of Systems of Linear Equations	A2.A.REI.11
	B) Solving Systems of Linear Equations	
3-2 Systems of Inequalities	A) Solutions of Systems of Linear Inequalities	A1.A.CED.3
	B) Graphing Systems of Linear Inequalities	
	C) Writing Systems of Linear Inequalities	
3-3 Linear Programming	A) Feasible Regions in Linear Programming	A1.A.CED.3
	B) Maximum and Minimum Values of Objective Functions	
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	
	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	
	B) Elimination to Solve Systems of Linear Equations with Three Variables	

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Chapter 4 Exponents and Roots

Lesson	Topic	AZ Standards
4-1 Exponent Properties	A) Simplifying Zero and Negative Powers	A2.N.RN.2, A2.A.SSE.2
	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	A2.N.RN.2, A2.A.SSE.2
	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	A2.N.RN.2, A2.A.SSE.2
	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	A2.N.RN.2
	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	A2.N.RN.1, A2.N.RN.2, A2.A.SSE.2
	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	A2.N.RN.1, A2.N.RN.2
	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	A2.N.RN.1, A2.N.RN.2, A2.A.SSE.2
	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	AZ Standards
5-1 Adding, Subtracting, and Multiplying Polynomials	A) Adding and Subtracting Polynomials	A2.A.SSE.2, A2.F.BF.1.b
	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	A2.A.SSE.2, A2.A.APR.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	A2.A.SSE.2, A2.A.APR.4
	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	A2.A.SSE.2, A2.A.APR.4
	B) Using Grouping to Factor Higher Degree Polynomials	
	C) Factoring Trinomials of Degree Thee 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	A2.A.SSE.2, A2.A.APR.6
	B) Long Division of Polynomials with Remainders	
5-6 Synthetic Division	A) Setting Up Synthetic Division	A2.A.SSE.2, A2.A.APR.6
	B) Different Parts of Synthetic Division	
	C) Synthetic Division of Polynomials	
5-7 Introductions to Imaginary Numbers	A) Simplifying Powers of the Imaginary Unit	A2.N.CN.1, A2.A.SSE.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	AZ Standards
5-8 Operations with Complex Numbers	A) Parts of Complex Numbers	A2.N.CN.1, A2.A.SSE.2
	B) Adding and Subtracting Complex Numbers	
	C) Multiplying and Simplifying Expressions with Complex Numbers	
5-9 Conjugates	A) Irrational and Complex Conjugates	A2.N.CN.1, A2.A.SSE.2
	B) Rationalizing Using Irrational Conjugates	
	C) Rationalizing Using Complex Conjugates	

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Chapter 6 Quadratic Functions and Equations

Lesson	Topic	AZ Standards
6-1 Transformations of Quadratic Functions	A) Graphing the Quadratic Parent Functions	A2.F.IF.4, A2.F.IF.6, A2.F.BF.3
	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	A2.F.IF.4, A2.F.IF.6, A2.F.IF.7, A2.F.IF.9
	B) Features of Quadratic Graphs	
	C) Features of Quadratic Equations	
	D) Domain and Range of Quadratic Functions	
6-3 Vertex Form of Quadratic Functions	A) Writing the Vertex Form of Quadratic Functions	A2.F.IF.4, A2.F.IF.6, A2.F.IF.7, A2.F.IF.9
	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	A2.N.Q.2, A2.A.SSE.2, A2.A.APR.3, A2.A.CED.1, A2.A.REI.4, A2.A.REI.7
	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	A2.N.CN.7, A2.A.SSE.2, A2.A.CED.1, A2.A.REI.1, A2.A.REI.4
	B) Completing the Square to Solve Quadratic Equations	
6-6 The Quadratic Formula	A) Writing the Quadratic Formula	A2.N.CN.7, A2.A.CED.1, A2.A.REI.4
	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	

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Chapter 6 Quadratic Functions and Equations (cont.)

Lesson	Topic	AZ Standards
6-8 Quadratic Inequalities	A) Solutions of Quadratic Inequalities	A2.A.CED.1
	B) Solving Quadratic Inequalities	
	C) Graphing Quadratic Inequalities	

Chapter 7 Polynomial Functions and Equations

Lesson	Topic	AZ Standards
7-1 Factored Form	A) Zeros of Polynomial Functions in Factored Form	A2.A.SSE.2, A2.A.APR.3
	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	A2.A.SSE.2, A2.A.APR.3
	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	A2.A.SSE.2
	B) Roots and Factored Form of a Polynomial	
7-4 Roots and the Remainder Theorem	A) Synthetic Division and Factoring	A2.A.SSE.2, A2.A.APR.2
	B) Polynomial Function and the Remainder Theorem	
7-5 End Behavior	A) Classifying Polynomial Graphs	A2.A.APR.3, A2.F.IF.4, A2.F.IF.7
	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	A2.A.APR.3, A2.F.IF.4, A2.F.IF.7
	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	AZ Standards
8-1 Operations of Functions	A) Function Notation	A2.F.BF.1.b
	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	A2.F.BF.1.b, A2.F.BF.4.a
	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	A2.F.BF.4.a, A2.F.BF.4.b, A2.F.BF.4.c
	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	A2.F.IF.4, A2.F.IF.6, A2.F.IF.7, A2.F.IF.9, A2.F.BF.3
	B) Square Root Functions and Translations	
	C) Square Root Functions and Reflections	
	D) Square Root Functions and Dilations	
	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	
	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	A2.A.REI.1, A2.A.REI.2
	B) Solving Radical Equations with Variable on Both Sides	

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Chapter 8 Radical Functions and Equations (cont.)

Lesson	Topic	AZ Standards
8-7 Solving Equations with Rational Exponents	A) Solving Equations with Rational Exponents - Variable on One Side	A2.A.REI.1, A2.A.REI.2
	B) Solving Equations with Rational Exponents - Variable on Both Sides	

Chapter 9 Exponential Functions and Equations

Lesson	Topic	AZ Standards
9-1 Solving Exponential Equations	A) Using Equivalent Bases to Solve Exponential Equations	A2.A.CED.1, A2.A.REI.11
	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	A2.A.SSE.3.c, A2.F.IF.4, A2.F.IF.6, A2.F.IF.7, A2.F.IF.8.b, A2.F.IF.9, A2.F.LE.5
	B) Asymptotes	
	C) Domain and Range of Exponential Functions	
	D) Graphing Exponential Functions	
9-3 Transformations of Exponential Functions	A) Exponential Functions and Translations	A2.F.IF.4, A2.F.IF.6, A2.F.IF.7, A2.F.IF.8.b, A2.F.IF.9, A2.F.LE.5
	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	A2.N.Q.2, A2.F.IF.8.b, A2.F.LE.5, A2.S.ID.10
	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	AZ Standards
10-1 Introduction to Logarithms	A) Parts of a Logarithmic Expression or Equation	A2.F.LE.4
	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	A2.F.LE.4
	B) Evaluating a Logarithm After Rewriting the Argument or Base	
10-3 Product and Quotient Properties of Logarithms	A) Product Property of Logarithms	A2.F.LE.4
	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	A2.F.LE.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	A2.F.LE.4
	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	A2.F.LE.4
	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	A2.A.REI.11, A2.F.IF.4, A2.F.IF.6, A2.F.IF.7, A2.F.IF.9, A2.F.LE.4
	B) Domain and Range of Logarithmic Functions	
	C) Graphing Logarithmic Functions	

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Chapter 10 Logarithms (cont.)

Lesson	Topic	AZ Standards
10-8 Transformations of Logarithmic Functions	A) Logarithmic Functions and Translations	A2.A.REI.11, A2.F.IF.4, A2.F.IF.6, A2.F.IF.7, A2.F.IF.9, A2.F.BF.3, A2.F.LE.4
	B) Logarithmic Functions and Reflections	
	C) Logarithmic Functions and Dilations	
	D) Logarithmic Functions and Transformations	
	E) Writing Equations of Transformed Logarithmic Functions	
10-9 Natural Logarithms	A) Parts of Natural Logarithm	A2.F.IF.4, A2.F.IF.6, A2.F.IF.7, A2.F.IF.9, A2.F.BF.3, A2.F.LE.4
	B) Evaluating Natural Logarithmic Expressions	
	C) Solving Natural Logarithmic Equations	
	D) Graphs of Natural Logarithmic Functions	

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Chapter 11 Sequences and Series

Lesson	Topic	AZ Standards
11-1 Sequences	A) Terms of a Sequence	A2.F.BF.2
	B) Introduction to Arithmetic Sequence	
	C) Introduction to Geometric Sequence	
	D) Classifying Sequences	
11-2 Arithmetic Sequences	A) Recursive Formula of an Arithmetic Sequence	A2.F.BF.1.a, A2.F.BF.2
	B) Writing and Evaluating Explicit Formula of an Arithmetic Sequence	
	C) Recursive and Explicit Formulas of an Arithmetic Sequence	
11-3 Geometric Sequences	A) Recursive Formula of a Geometric Sequence	A2.F.BF.1.a, A2.F.BF.2
	B) Writing and Evaluating Explicit Formula of a Geometric Sequence	
	C) Recursive and Explicit Formulas of a Geometric Sequence	
11-4 Series and Sigma Notation	A) Sequence and Series	A2.F.BF.2
	B) Parts of Sigma Notation	
	C) Series and Sigma Notation	
11-5 Arithmetic Series	A) Finite Series of an Arithmetic Sequence	A2.F.BF.2
	B) Writing and Finding the Partial Sum of Arithmetic Sequence or Series	
	C) Finite Arithmetic Series Written in Sigma Notation	
11-6 Finite Geometric Series	A) Finite Series of a Geometric Sequence	A2.A.SSE.4, A2.F.BF.2
	B) Writing and Finding the Partial Sum of Geometric Sequence or Series	
	C) Finite Geometric Series Written in Sigma Notation	
11-7 Infinite Geometric Series	A) Convergent and Divergent Series	A2.F.BF.2
	B) Writing and Evaluating an Infinite Geometric Series	
	C) Infinite Geometric Series and Sigma Notation	

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Chapter 12 Rational Functions and Equations

Lesson	Topic	AZ Standards
12-1 Direct and Inverse Variation	A) Direct Variation	A2.F.IF.6
	B) Inverse Variation	
12-2 Transformations of Rational Functions	A) Graphing the Rational Parent Function	A2.A.REI.11, A2.F.IF.4, A2.F.IF.6, A2.F.IF.7, A2.F.IF.9, A2.F.BF.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	A2.A.APR.6
	B) Simplifying Rational Expressions After Factoring	
12-4 Multiplying and Dividing Rational Expressions	A) Cross Canceling	
	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	A2.F.BF.1.b
	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	A2.A.CED.1, A2.A.REI.1, A2.A.REI.2
	B) Solving Rational Equations After Factoring	
12-7 Discontinuities in Rational Functions	A) Identifying Equations of Rational Functions	A2.F.IF.7
	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	A2.F.IF.4, A2.F.IF.6, A2.F.IF.7, A2.F.IF.9
	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	AZ Standards
13-1 Special Right Triangles	A) Side Lengths of 45°-45°-90° Triangles	G.G.SRT.6
	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.G.SRT.6, G.G.SRT.7
	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	A2.F.TF.1
	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	A2.F.TF.2
	B) Reference Angles	
13-5 Trigonometric Functions of All Angles	A) Using the Coordinates of a Point to Find Trigonometric Ratios	A2.F.TF.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	A2.F.TF.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	A2.F.IF.7
	B) Graphing Periodic Functions	
13-8 Sine and Cosine Functions	A) Amplitudes of Sine and Cosine Functions	A2.F.IF.4, A2.F.IF.6, A2.F.IF.7, A2.F.IF.9, A2.F.TF.2, A2.F.TF.5
	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	AZ Standards
13-9 Tangent Functions	A) Tangent Parent Function	A2.F.IF.4, A2.F.IF.6, A2.F.IF.7, A2.F.IF.9, A2.F.BF.3, A2.F.TF.2, A2.F.TF.5
	B) Vertical Dilations and Reflections of Tangent Functions	
	C) Periods of Tangent Functions	
	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	A2.F.IF.4, A2.F.IF.6, A2.F.IF.7, A2.F.IF.9, A2.F.BF.3, A2.F.TF.5
	B) Domain and Range of Trigonometric Functions	
13-11 Trigonometric Identities	A) The Tangent Identity	A2.F.TF.8
	B) The Pythagorean Identity	
	C) The Reciprocal Identity	

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Chapter 14 Probability

Lesson	Topic	AZ Standards
14-1 Factorials and Outcomes	A) Factorials and Operations with Factorials	A1.S.CP.1
	B) Tree Diagrams	
	C) Number of Outcomes for Independent and Dependent Events	
14-2 Permutations and Combinations	A) Permutations	
	B) Combinations	
	C) Permutation and Combination from Situations	
14-3 Experimental and Theoretical Probability	A) Experimental Probability	7.SP.7.a
	B) Theoretical Probability	
	C) Making Inferences Using Probability	
14-4 Mutually Exclusive Events	A) Probability of an And Event	A2.S.CP.7
	B) Probability of Mutually Exclusive Events	
	C) Probability of Not Mutually Exclusive Events	
14-5 Independent Events	A) Independent and Dependent Events	A1.S.CP.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	A2.S.CP.3, A2.S.CP.5, A2.S.CP.6, A2.S.CP.8
	B) Conditional Probability	
	C) Probability of Dependent Events	
14-7 Two-Way Tables	A) Two-Way Tables and Probability	A2.S.CP.4, A2.S.CP.5, A2.S.CP.8
	B) Relative Frequency and Probability	
	C) Relative Frequency and Conditional Probability	

Knowre Math: **Algebra 2** Curriculum

Chapter 15 Statistics

Lesson	Topic	AZ Standards
15-1 Measures of Center and Spread	A) Measures of Center of a Data Set	S.ID.1, S.ID.2. S.ID.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	S.ID.2. S.ID.3
	B) Shape of a Data Set and Standard Deviation	
15-3 Populations, Samples, and Bias	A) Population, Sample, Parameter, and Statistic	S.ID.1, S.ID.3. S.ID.4
	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	A.APR.5
	B) Combination and Binomial Expansion	
	C) Binomial Theorem	
15-5 Binomial Probability	A) Binomial Experiment	S.CP.9
	B) Finding Binomial Probability	
	C) Binomial Expressions and Distribution Graphs	
15-6 Normal Distribution	A) Normal Distribution Graphs	S.ID.4
	B) Normal Distribution Graphs and the Empirical Rule	
15-7 z-Scores	A) Standard Normal Distribution and z-Scores	S.ID.4
	B) Probability Using z-Tables	