

Thinkwell's Homeschool Precalculus

Course Lesson Plan: 36 weeks

Welcome to Thinkwell's Homeschool Precalculus! We're thrilled that you've decided to make us part of your homeschool curriculum. This lesson plan is meant to be a guide for you and your homeschool student. Each day, you'll tackle a different topic and all the materials associated with that topic, such as video lectures, exercises, and notes. If you follow our day-by-day schedule, you'll complete the full curriculum for the course in 36 weeks. Feel free to modify and amend the plan as it best works for you. And, as always, please [let us know](#) what we can do to help get you up and running with Thinkwell's Precalculus!

Week 1	
Chapter 1: Basic Algebra Review	
Assignments	Notes
<u>Week 1, Day 1</u>	
<input type="checkbox"/> 1.1.1 The Top Ten List of Mistakes <input type="checkbox"/> 1.2.1 Concepts of Inequality	
<u>Week 1, Day 2</u>	
<input type="checkbox"/> 1.2.2 Inequalities and Interval Notation <input type="checkbox"/> 1.3.1 Properties of Absolute Value	
<u>Week 1, Day 3</u>	
<input type="checkbox"/> 1.3.2 Evaluating Absolute Value Expressions <input type="checkbox"/> 1.4.1 An Introduction to Exponents <input type="checkbox"/> 1.4.2 Evaluating Exponential Expressions	
<u>Week 1, Day 4</u>	
<input type="checkbox"/> 1.4.3 Applying the Rules of Exponents <input type="checkbox"/> 1.4.4 Evaluating Expressions with Negative Exponents	
<u>Week 1, Day 5</u>	
<input type="checkbox"/> 1.5.1 Converting between Decimal and Scientific Notation <input type="checkbox"/> 1.5.2 Converting Rational Exponents and Radicals	

Week 2	
Chapter 1: Basic Algebra Review	
Assignments	Notes
<u>Week 2, Day 1</u>	
<input type="checkbox"/> 1.6.1 Simplifying Radical Expressions <input type="checkbox"/> 1.6.2 Simplifying Radical Expressions with Variables <input type="checkbox"/> 1.6.3 Rationalizing Denominators	
<u>Week 2, Day 2</u>	
<input type="checkbox"/> 1.7.1 Determining Components and Degree <input type="checkbox"/> 1.7.2 Adding, Subtracting, and Multiplying Polynomials	
<u>Week 2, Day 3</u>	
<input type="checkbox"/> 1.7.3 Multiplying Big Products <input type="checkbox"/> 1.7.4 Using Special Products	

<u>Week 2, Day 4</u> <input type="checkbox"/> 1.8.1 Factoring Using the Greatest Common Factor <input type="checkbox"/> 1.8.2 Factoring by Grouping <input type="checkbox"/> 1.8.3 Factoring Trinomials Completely	
<u>Week 2, Day 5</u> <input type="checkbox"/> 1.9.1 Factoring Perfect Square Trinomials <input type="checkbox"/> 1.9.2 Factoring the Difference of Two Squares	

Week 3 Chapter 1: Basic Algebra Review	
Assignments	Notes
<u>Week 3, Day 1</u> <input type="checkbox"/> 1.9.3 Factoring the Sums and Differences of Cubes <input type="checkbox"/> 1.9.4 Factoring by Any Method	
<u>Week 3, Day 2</u> <input type="checkbox"/> 1.10.1 Rational Expressions and Domain <input type="checkbox"/> 1.10.2 Working with Fractions <input type="checkbox"/> 1.10.3 Writing Rational Expressions in Lowest Terms	
<u>Week 3, Day 3</u> <input type="checkbox"/> 1.11.1 Multiplying and Dividing Rational Expressions <input type="checkbox"/> 1.11.2 Adding and Subtracting Rational Expressions <input type="checkbox"/> 1.11.3 Rewriting Complex Fractions	
<u>Week 3, Day 4</u> <input type="checkbox"/> 1.12.1 Introducing and Writing Complex Numbers <input type="checkbox"/> 1.12.2 Rewriting Powers of i <input type="checkbox"/> 1.12.3 Adding and Subtracting Complex Numbers	
<u>Week 3, Day 5</u> <input type="checkbox"/> 1.12.4 Multiplying Complex Numbers <input type="checkbox"/> 1.12.5 Dividing Complex Numbers	

Week 4 Chapter 1 Test Chapter 2: Equations and Inequalities	
Assignments	Notes
<u>Week 4, Day 1</u> <input type="checkbox"/> Chapter 1 Practice Test	
<u>Week 4, Day 2</u> <input type="checkbox"/> Chapter 1 Test	Chapter 1 Test Score: _____
<u>Week 4, Day 3</u> <input type="checkbox"/> 2.1.1 An Introduction to Solving Equations <input type="checkbox"/> 2.1.2 Solving a Linear Equation	
<u>Week 4, Day 4</u> <input type="checkbox"/> 2.1.3 Solving a Linear Equation with Rationals <input type="checkbox"/> 2.1.4 Solving a Linear Equation That Has Restrictions	

Week 4, Day 5	
<input type="checkbox"/> 2.2.1 An Introduction to Solving Word Problems <input type="checkbox"/> 2.2.2 Solving for Perimeter <input type="checkbox"/> 2.2.3 Solving a Linear Geometry Problem	

Week 5	
Chapter 2: Equations and Inequalities	
Assignments	Notes
Week 5, Day 1	
<input type="checkbox"/> 2.2.4 Solving for Consecutive Numbers <input type="checkbox"/> 2.2.5 Solving to Find the Average	
Week 5, Day 2	
<input type="checkbox"/> 2.3.1 Solving for Constant Velocity <input type="checkbox"/> 2.3.2 Solving a Problem about Work <input type="checkbox"/> 2.3.3 Solving a Mixture Problem	
Week 5, Day 3	
<input type="checkbox"/> 2.3.4 Solving an Investment Problem <input type="checkbox"/> 2.3.5 Solving Business Problems	
Week 5, Day 4	
<input type="checkbox"/> 2.4.1 Solving Quadratics by Factoring <input type="checkbox"/> 2.4.2 Solving Quadratics by Completing the Square <input type="checkbox"/> 2.4.3 Completing the Square: Another Example	
Week 5, Day 5	
<input type="checkbox"/> 2.5.1 Proving the Quadratic Formula <input type="checkbox"/> 2.5.2 Using the Quadratic Formula <input type="checkbox"/> 2.5.3 Predicting the Type of Solutions Using the Discriminant	

Week 6	
Chapter 2: Equations and Inequalities	
Assignments	Notes
Week 6, Day 1	
<input type="checkbox"/> 2.6.1 Solving for a Squared Variable <input type="checkbox"/> 2.6.2 Finding Real Number Restrictions <input type="checkbox"/> 2.6.3 Solving Fancy Quadratics	
Week 6, Day 2	
<input type="checkbox"/> 2.7.1 An Introduction to Word Problems with Quadratics <input type="checkbox"/> 2.7.2 Solving a Quadratic Geometry Problem <input type="checkbox"/> 2.7.3 Solving with the Pythagorean Theorem	
Week 6, Day 3	
<input type="checkbox"/> 2.8.1 Solving a Motion Problem <input type="checkbox"/> 2.8.2 Solving a Projectile Problem <input type="checkbox"/> 2.8.3 Solving Other Problems	
Week 6, Day 4	

<input type="checkbox"/> 2.9.1 Determining Extraneous Roots	
<input type="checkbox"/> 2.9.2 Solving an Equation Containing a Radical	
<u>Week 6, Day 5</u>	
<input type="checkbox"/> 2.9.3 Solving an Equation with Two Radicals	
<input type="checkbox"/> 2.9.4 Solving an Equation with Rational Exponents	

Week 7	
Chapter 2: Equations and Inequalities	
Assignments	Notes
<u>Week 7, Day 1</u>	
<input type="checkbox"/> 2.10.1 An Introduction to Variation	
<input type="checkbox"/> 2.10.2 Direct Proportion	
<input type="checkbox"/> 2.10.3 Inverse Proportion	
<u>Week 7, Day 2</u>	
<input type="checkbox"/> 2.11.1 An Introduction to Solving Inequalities	
<input type="checkbox"/> 2.11.2 Solving Compound Inequalities	
<u>Week 7, Day 3</u>	
<input type="checkbox"/> 2.11.3 More on Compound Inequalities	
<input type="checkbox"/> 2.11.4 Solving Word Problems Involving Inequalities	
<u>Week 7, Day 4</u>	
<input type="checkbox"/> 2.12.1 Solving Quadratic Inequalities	
<input type="checkbox"/> 2.12.2 Solving Quadratic Inequalities: Another Example	
<u>Week 7, Day 5</u>	
<input type="checkbox"/> 2.13.1 Solving Rational Inequalities	
<input type="checkbox"/> 2.13.2 Solving Rational Inequalities: Another Example	
<input type="checkbox"/> 2.13.3 Determining the Domains of Expressions with Radicals	

Week 8	
Chapter 2: Equations and Inequalities	
Chapter 2 Test	
Chapter 3: Relations and Functions	
Assignments	Notes
<u>Week 8, Day 1</u>	
<input type="checkbox"/> 2.14.1 Matching Number Lines with Absolute Values	
<input type="checkbox"/> 2.14.2 Solving Absolute Value Equations	
<input type="checkbox"/> 2.14.3 Solving Equations with Two Absolute Value Expressions	
<u>Week 8, Day 2</u>	
<input type="checkbox"/> 2.14.4 Solving Absolute Value Inequalities	
<input type="checkbox"/> 2.14.5 Solving Absolute Value Inequalities: More Examples	
<u>Week 8, Day 3</u>	
<input type="checkbox"/> Chapter 2 Practice Test	
<u>Week 8, Day 4</u>	Chapter 2 Test
<input type="checkbox"/> Chapter 2 Test	Score: _____
<u>Week 8, Day 5</u>	

<input type="checkbox"/> 3.1.1 Using the Cartesian System <input type="checkbox"/> 3.1.2 Thinking Visually	
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Week 9	
Chapter 3: Relations and Functions	
Assignments	Notes
<u>Week 9, Day 1</u>	
<input type="checkbox"/> 3.2.1 Finding the Distance between Two Points <input type="checkbox"/> 3.2.2 Finding the Second Endpoint of a Segment <input type="checkbox"/> 3.3.1 Collinearity and Distance	
<u>Week 9, Day 2</u>	
<input type="checkbox"/> 3.3.2 Triangles <input type="checkbox"/> 3.4.1 Finding the Center-Radius Form of the Equation of a Circle <input type="checkbox"/> 3.4.2 Finding the Center and Radius of a Circle	
<u>Week 9, Day 3</u>	
<input type="checkbox"/> 3.4.3 Decoding the Circle Formula <input type="checkbox"/> 3.4.4 Solving Word Problems Involving Circles	
<u>Week 9, Day 4</u>	
<input type="checkbox"/> 3.5.1 Graphing Equations by Locating Points <input type="checkbox"/> 3.5.2 Finding the x - and y -Intercepts of an Equation	
<u>Week 9, Day 5</u>	
<input type="checkbox"/> 3.6.1 Functions and the Vertical Line Test <input type="checkbox"/> 3.6.2 Identifying Functions <input type="checkbox"/> 3.6.3 Function Notation and Finding Function Values	

Week 10	
Chapter 3: Relations and Functions	
Assignments	Notes
<u>Week 10, Day 1</u>	
<input type="checkbox"/> 3.7.1 Determining Intervals Over Which a Function Is Increasing <input type="checkbox"/> 3.7.2 Evaluating Piecewise-Defined Functions for Given Values <input type="checkbox"/> 3.7.3 Solving Word Problems Involving Functions	
<u>Week 10, Day 2</u>	
<input type="checkbox"/> 3.8.1 Finding the Domain and Range of a Function <input type="checkbox"/> 3.8.2 Domain and Range: One Explicit Example <input type="checkbox"/> 3.8.3 Satisfying the Domain of a Function	
<u>Week 10, Day 3</u>	
<input type="checkbox"/> 3.9.1 An Introduction to Slope <input type="checkbox"/> 3.9.2 Finding the Slope of a Line Given Two Points	
<u>Week 10, Day 4</u>	
<input type="checkbox"/> 3.9.3 Interpreting Slope from a Graph <input type="checkbox"/> 3.9.4 Graphing a Line Using Point and Slope	
<u>Week 10, Day 5</u>	

<input type="checkbox"/> 3.10.1 Writing an Equation in Slope-Intercept Form <input type="checkbox"/> 3.10.2 Writing an Equation Given Two Points <input type="checkbox"/> 3.10.3 Writing an Equation in Point-Slope Form	
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Week 11	
Chapter 3: Relations and Functions	
Assignments	Notes
<u>Week 11, Day 1</u>	
<input type="checkbox"/> 3.10.4 Matching a Slope-Intercept Equation with Its Graph <input type="checkbox"/> 3.10.5 Slope for Parallel and Perpendicular Lines	
<u>Week 11, Day 2</u>	
<input type="checkbox"/> 3.11.1 Constructing Linear Function Models of Data <input type="checkbox"/> 3.11.2 Linear Cost and Revenue Functions	
<u>Week 11, Day 3</u>	
<input type="checkbox"/> 3.12.1 Graphing Some Important Functions <input type="checkbox"/> 3.12.2 Graphing Piecewise-Defined Functions <input type="checkbox"/> 3.12.3 Matching Equations with Their Graphs	
<u>Week 11, Day 4</u>	
<input type="checkbox"/> 3.13.1 The Greatest Integer Function <input type="checkbox"/> 3.13.2 Graphing the Greatest Integer Function <input type="checkbox"/> 3.14.1 Deconstructing the Graph of a Quadratic Function	
<u>Week 11, Day 5</u>	
<input type="checkbox"/> 3.14.2 Nice-Looking Parabolas <input type="checkbox"/> 3.14.3 Using Discriminants to Graph Parabolas <input type="checkbox"/> 3.14.4 Maximum Height in the Real World	

Week 12	
Chapter 3: Relations and Functions	
Assignments	Notes
<u>Week 12, Day 1</u>	
<input type="checkbox"/> 3.15.1 Finding the Vertex by Completing the Square <input type="checkbox"/> 3.15.2 Using the Vertex to Write the Quadratic Equation <input type="checkbox"/> 3.15.3 Finding the Maximum or Minimum of a Quadratic <input type="checkbox"/> 3.15.4 Graphing Parabolas	
<u>Week 12, Day 2</u>	
<input type="checkbox"/> 3.16.1 Shifting Curves along Axes <input type="checkbox"/> 3.16.2 Shifting or Translating Curves along Axes <input type="checkbox"/> 3.16.3 Stretching a Graph <input type="checkbox"/> 3.16.4 Graphing Quadratics Using Patterns	
<u>Week 12, Day 3</u>	
<input type="checkbox"/> 3.17.1 Determining Symmetry <input type="checkbox"/> 3.17.2 Reflections <input type="checkbox"/> 3.17.3 Reflecting Specific Functions	
<u>Week 12, Day 4</u>	

<input type="checkbox"/> 3.18.1 Using Operations on Functions <input type="checkbox"/> 3.18.2 Composite Functions <input type="checkbox"/> 3.18.3 Components of Composite Functions	
<u>Week 12, Day 5</u> <input type="checkbox"/> 3.18.4 Finding Functions That Form a Given Composite <input type="checkbox"/> 3.18.5 Finding the Difference Quotient of a Function	

Week 13 Chapter 3 Test Chapter 4: Polynomial and Rational Functions	
Assignments	Notes
<u>Week 13, Day 1</u> <input type="checkbox"/> Chapter 3 Practice Test	
<u>Week 13, Day 2</u> <input type="checkbox"/> Chapter 3 Test	Chapter 3 Test Score: _____
<u>Week 13, Day 3</u> <input type="checkbox"/> 4.1.1 Using Long Division with Polynomials <input type="checkbox"/> 4.1.2 Long Division: Another Example	
<u>Week 13, Day 4</u> <input type="checkbox"/> 4.2.1 Using Synthetic Division with Polynomials <input type="checkbox"/> 4.2.2 More Synthetic Division	
<u>Week 13, Day 5</u> <input type="checkbox"/> 4.3.1 The Remainder Theorem <input type="checkbox"/> 4.3.2 More on the Remainder Theorem	

Week 14 Chapter 4: Polynomial and Rational Functions	
Assignments	Notes
<u>Week 14, Day 1</u> <input type="checkbox"/> 4.4.1 The Factor Theorem and Its Uses <input type="checkbox"/> 4.4.2 Factoring a Polynomial Given a Zero	
<u>Week 14, Day 2</u> <input type="checkbox"/> 4.5.1 Presenting the Rational Zero Theorem	
<u>Week 14, Day 3</u> <input type="checkbox"/> 4.5.2 Considering Possible Solutions <input type="checkbox"/> 4.6.1 Finding Polynomials Given Zeros, Degree, and One Point	
<u>Week 14, Day 4</u> <input type="checkbox"/> 4.6.2 Finding all Zeros and Multiplicities of a Polynomial <input type="checkbox"/> 4.6.3 Finding the Real Zeros for a Polynomial	
<u>Week 14, Day 5</u> <input type="checkbox"/> 4.6.4 Using Descartes' Rule of Signs <input type="checkbox"/> 4.6.5 Finding the Zeros of a Polynomial from Start to Finish	

Week 15 Chapter 4: Polynomial and Rational Functions	
Assignments	Notes
<u>Week 15, Day 1</u> <input type="checkbox"/> 4.7.1 Matching Graphs to Polynomial Functions <input type="checkbox"/> 4.7.2 Sketching the Graphs of Basic Polynomial Functions	
<u>Week 15, Day 2</u> <input type="checkbox"/> 4.8.1 Understanding Rational Functions <input type="checkbox"/> 4.8.2 Basic Rational Functions	
<u>Week 15, Day 3</u> <input type="checkbox"/> 4.9.1 Vertical Asymptotes <input type="checkbox"/> 4.9.2 Horizontal Asymptotes	
<u>Week 15, Day 4</u> <input type="checkbox"/> 4.9.3 Graphing Rational Functions <input type="checkbox"/> 4.9.4 Graphing Rational Functions: More Examples	
<u>Week 15, Day 5</u> <input type="checkbox"/> 4.9.5 Oblique Asymptotes <input type="checkbox"/> 4.9.6 Oblique Asymptotes: Another Example	

Week 16 Chapter 4 Test Chapter 5: Exponential and Logarithmic Functions	
Assignments	Notes
<u>Week 16, Day 1</u> <input type="checkbox"/> Chapter 4 Practice Test	
<u>Week 16, Day 2</u> <input type="checkbox"/> Chapter 4 Test	Chapter 4 Test Score: _____
<u>Week 16, Day 3</u> <input type="checkbox"/> 5.1.1 Understanding Inverse Functions <input type="checkbox"/> 5.1.2 The Horizontal Line Test	
<u>Week 16, Day 4</u> <input type="checkbox"/> 5.1.3 Are Two Functions Inverses of Each Other? <input type="checkbox"/> 5.1.4 Graphing the Inverse	
<u>Week 16, Day 5</u> <input type="checkbox"/> 5.2.1 Finding the Inverse of a Function <input type="checkbox"/> 5.2.2 Finding the Inverse of a Function with Higher Powers	

Week 17 Chapter 5: Exponential and Logarithmic Functions	
Assignments	Notes
<u>Week 17, Day 1</u> <input type="checkbox"/> 5.3.1 An Introduction to Exponential Functions <input type="checkbox"/> 5.3.2 Graphing Exponential Functions: Useful Patterns	
<u>Week 17, Day 2</u>	

<input type="checkbox"/> 5.3.3 Graphing Exponential Functions: More Examples <input type="checkbox"/> 5.4.1 Using Properties of Exponents to Solve Exponential Equations	
<u>Week 17, Day 3</u> <input type="checkbox"/> 5.4.2 Finding Present Value and Future Value <input type="checkbox"/> 5.4.3 Finding an Interest Rate to Match Given Goals	
<u>Week 17, Day 4</u> <input type="checkbox"/> 5.5.1 e <input type="checkbox"/> 5.5.2 Applying Exponential Functions	
<u>Week 17, Day 5</u> <input type="checkbox"/> 5.6.1 An Introduction to Logarithmic Functions <input type="checkbox"/> 5.6.2 Converting between Exponential and Logarithmic Functions	

Week 18 Chapter 5: Exponential and Logarithmic Functions	
Assignments	Notes
<u>Week 18, Day 1</u> <input type="checkbox"/> 5.7.1 Finding the Value of a Logarithmic Function <input type="checkbox"/> 5.7.2 Solving for x in Logarithmic Equations	
<u>Week 18, Day 2</u> <input type="checkbox"/> 5.7.3 Graphing Logarithmic Functions <input type="checkbox"/> 5.7.4 Matching Logarithmic Functions with Their Graphs	
<u>Week 18, Day 3</u> <input type="checkbox"/> 5.8.1 Properties of Logarithms <input type="checkbox"/> 5.8.2 Expanding a Logarithmic Expression Using Properties	
<u>Week 18, Day 4</u> <input type="checkbox"/> 5.8.3 Combining Logarithmic Expressions <input type="checkbox"/> 5.9.1 Evaluating Logarithmic Functions Using a Calculator	
<u>Week 18, Day 5</u> <input type="checkbox"/> 5.9.2 Using the Change of Base Formula <input type="checkbox"/> 5.10.1 The Richter Scale	

Week 19 Chapter 5: Exponential and Logarithmic Functions	
Assignments	Notes
<u>Week 19, Day 1</u> <input type="checkbox"/> 5.10.2 The Distance Modulus Formula <input type="checkbox"/> 5.11.1 Solving Exponential Equations	
<u>Week 19, Day 2</u> <input type="checkbox"/> 5.11.2 Solving Logarithmic Equations <input type="checkbox"/> 5.11.3 Solving Equations with Logarithmic Exponents	
<u>Week 19, Day 3</u>	

<input type="checkbox"/> 5.12.1 Compound Interest <input type="checkbox"/> 5.12.2 Predicting Change	
<u>Week 19, Day 4</u> <input type="checkbox"/> 5.13.1 An Introduction to Exponential Growth and Decay <input type="checkbox"/> 5.13.2 Half-Life	
<u>Week 19, Day 5</u> <input type="checkbox"/> 5.13.3 Newton's Law of Cooling <input type="checkbox"/> 5.13.4 Continuously Compounded Interest	

Week 20 Chapter 5 Test Midterm Exam	
Assignments	Notes
<u>Week 20, Day 1</u> <input type="checkbox"/> Chapter 5 Practice Test	
<u>Week 20, Day 2</u> <input type="checkbox"/> Chapter 5 Test	Chapter 5 Test Score: _____
<u>Week 20, Day 3</u> <input type="checkbox"/> Study for Midterm Exam	
<u>Week 20, Day 4</u> <input type="checkbox"/> Practice Midterm Exam	
<u>Week 20, Day 5</u> <input type="checkbox"/> Midterm Exam	Midterm Exam Score: _____

Week 21 Chapter 6: The Trigonometric Functions	
Assignments	Notes
<u>Week 21, Day 1</u> <input type="checkbox"/> 6.1.1 Finding the Quadrant in Which an Angle Lies	
<u>Week 21, Day 2</u> <input type="checkbox"/> 6.1.2 Finding Coterminal Angles <input type="checkbox"/> 6.1.3 Finding the Complement and Supplement of an Angle	
<u>Week 21, Day 3</u> <input type="checkbox"/> 6.1.4 Converting between Degrees and Radians <input type="checkbox"/> 6.1.5 Using the Arc Length Formula	
<u>Week 21, Day 4</u> <input type="checkbox"/> 6.2.1 An Introduction to the Trigonometric Functions	
<u>Week 21, Day 5</u> <input type="checkbox"/> 6.2.2 Evaluating Trigonometric Functions for an Angle in a Right Triangle <input type="checkbox"/> 6.2.3 Finding an Angle Given the Value of a Trigonometric Function	

Week 22 Chapter 6: The Trigonometric Functions	
Assignments	Notes
<u>Week 22, Day 1</u> <input type="checkbox"/> 6.2.4 Using Trigonometric Functions to Find Unknown Sides of Right Triangles <input type="checkbox"/> 6.2.5 Finding the Height of a Building	
<u>Week 22, Day 2</u> <input type="checkbox"/> 6.3.1 Evaluating Trigonometric Functions for an Angle in the Coordinate Plane <input type="checkbox"/> 6.3.2 Evaluating Trigonometric Functions Using the Reference Angle	
<u>Week 22, Day 3</u> <input type="checkbox"/> 6.3.3 Finding the Value of Trigonometric Functions Given Information about the Values of Other Trigonometric Functions <input type="checkbox"/> 6.3.4 Trigonometric Functions of Important Angles	
<u>Week 22, Day 4</u> <input type="checkbox"/> 6.4.1 An Introduction to the Graphs of Sine and Cosine Functions <input type="checkbox"/> 6.4.2 Graphing Sine or Cosine Functions with Different Coefficients	
<u>Week 22, Day 5</u> <input type="checkbox"/> 6.4.3 Finding Maximum and Minimum Values and Zeros of Sine and Cosine <input type="checkbox"/> 6.4.4 Solving Word Problems Involving Sine or Cosine Functions	

Week 23 Chapter 6: The Trigonometric Functions	
Assignments	Notes
<u>Week 23, Day 1</u> <input type="checkbox"/> 6.5.1 Graphing Sine and Cosine Functions with Phase Shifts <input type="checkbox"/> 6.5.2 Fancy Graphing: Changes in Period, Amplitude, Vertical Shift, and Phase Shift	
<u>Week 23, Day 2</u> <input type="checkbox"/> 6.6.1 Graphing the Tangent, Secant, Cosecant, and Cotangent Functions <input type="checkbox"/> 6.6.2 Fancy Graphing: Tangent, Secant, Cosecant, and Cotangent	
<u>Week 23, Day 3</u> <input type="checkbox"/> 6.6.3 Identifying a Trigonometric Function from its Graph <input type="checkbox"/> 6.7.1 An Introduction to Inverse Trigonometric Functions	
<u>Week 23, Day 4</u> <input type="checkbox"/> 6.7.2 Evaluating Inverse Trigonometric Functions <input type="checkbox"/> 6.7.3 Solving an Equation Involving an Inverse Trigonometric Function	

<u>Week 23, Day 5</u>	
<input type="checkbox"/> 6.7.4 Evaluating the Composition of a Trigonometric Function and Its Inverse <input type="checkbox"/> 6.7.5 Applying Trigonometric Functions: Is He Speeding?	

Week 24	
Chapter 6 Test	
Chapter 7: Trigonometric Identities	
Assignments	Notes
<u>Week 24, Day 1</u>	
<input type="checkbox"/> Chapter 6 Practice Test	
<u>Week 24, Day 2</u>	Chapter 6 Test Score: _____
<input type="checkbox"/> Chapter 6 Test	
<u>Week 24, Day 3</u>	
<input type="checkbox"/> 7.1.1 Fundamental Trigonometric Identities <input type="checkbox"/> 7.1.2 Finding All Function Values	
<u>Week 24, Day 4</u>	
<input type="checkbox"/> 7.2.1 Simplifying a Trigonometric Expression Using Trigonometric Identities <input type="checkbox"/> 7.2.2 Simplifying Trigonometric Expressions Involving Fractions <input type="checkbox"/> 7.2.3 Simplifying Products of Binomials Involving Trigonometric Functions	
<u>Week 24, Day 5</u>	
<input type="checkbox"/> 7.2.4 Factoring Trigonometric Expressions <input type="checkbox"/> 7.2.5 Determining Whether a Trigonometric Function Is Odd, Even, or Neither	

Week 25	
Chapter 7: Trigonometric Identities	
Assignments	Notes
<u>Week 25, Day 1</u>	
<input type="checkbox"/> 7.3.1 Proving an Identity <input type="checkbox"/> 7.3.2 Proving an Identity: Other Examples	
<u>Week 25, Day 2</u>	
<input type="checkbox"/> 7.4.1 Solving Trigonometric Equations <input type="checkbox"/> 7.4.2 Solving Trigonometric Equations by Factoring	
<u>Week 25, Day 3</u>	
<input type="checkbox"/> 7.4.3 Solving Trigonometric Equations with Coefficients in the Argument <input type="checkbox"/> 7.4.4 Solving Trigonometric Equations Using the Quadratic Formula	
<u>Week 25, Day 4</u>	
<input type="checkbox"/> 7.4.5 Solving Word Problems Involving Trigonometric Equations <input type="checkbox"/> 7.5.1 Identities for Sums and Differences of Angles	

Week 25, Day 5	
<input type="checkbox"/> 7.5.2 Using Sum and Difference Identities <input type="checkbox"/> 7.5.3 Using Sum and Difference Identities to Simplify an Expression	

Week 26	
Chapter 7: Trigonometric Identities	
Chapter 7 Test	
Assignments	Notes
Week 26, Day 1	
<input type="checkbox"/> 7.6.1 Confirming a Double-Angle Identity <input type="checkbox"/> 7.6.2 Using Double-Angle Identities	
Week 26, Day 2	
<input type="checkbox"/> 7.6.3 Solving Word Problems Involving Multiple-Angle Identities <input type="checkbox"/> 7.7.1 Using a Cofunction Identity	
Week 26, Day 3	
<input type="checkbox"/> 7.7.2 Using a Power-Reducing Identity <input type="checkbox"/> 7.7.3 Using Half-Angle Identities to Solve a Trigonometric Equation	
Week 26, Day 4	
<input type="checkbox"/> Chapter 7 Practice Test	
Week 26, Day 5	Chapter 7 Test
<input type="checkbox"/> Chapter 7 Test	Score: _____

Week 27	
Chapter 8: Applications of Trigonometry	
Assignments	Notes
Week 27, Day 1	
<input type="checkbox"/> 8.1.1 The Law of Sines <input type="checkbox"/> 8.1.2 Solving a Triangle Given Two Sides and One Angle	
Week 27, Day 2	
<input type="checkbox"/> 8.1.3 Solving a Triangle (SAS): Another Example <input type="checkbox"/> 8.1.4 The Law of Sines: An Application	
Week 27, Day 3	
<input type="checkbox"/> 8.2.1 The Law of Cosines <input type="checkbox"/> 8.2.2 The Law of Cosines (SSS)	
Week 27, Day 4	
<input type="checkbox"/> 8.2.3 The Law of Cosines (SAS): An Application <input type="checkbox"/> 8.2.4 Heron's Formula	
Week 27, Day 5	
<input type="checkbox"/> 8.3.1 An Introduction to Vectors <input type="checkbox"/> 8.3.2 Finding the Magnitude and Direction of a Vector <input type="checkbox"/> 8.3.3 Vector Addition and Scalar Multiplication	

Week 28 Chapter 8: Applications of Trigonometry	
Assignments	Notes
<u>Week 28, Day 1</u> <input type="checkbox"/> 8.4.1 Finding the Components of a Vector <input type="checkbox"/> 8.4.2 Finding a Unit Vector	
<u>Week 28, Day 2</u> <input type="checkbox"/> 8.4.3 Solving Word Problems Involving Velocity or Forces <input type="checkbox"/> 8.5.1 Graphing a Complex Number and Finding Its Absolute Value	
<u>Week 28, Day 3</u> <input type="checkbox"/> 8.5.2 Expressing a Complex Number in Trigonometric or Polar Form <input type="checkbox"/> 8.5.3 Multiplying and Dividing Complex Numbers in Trigonometric or Polar Form	
<u>Week 28, Day 4</u> <input type="checkbox"/> 8.6.1 Using DeMoivre's Theorem to Raise a Complex Number to a Power <input type="checkbox"/> 8.6.2 Roots of Complex Numbers	
<u>Week 28, Day 5</u> <input type="checkbox"/> 8.6.3 More Roots of Complex Numbers <input type="checkbox"/> 8.6.4 Roots of Unity	

Week 29 Chapter 8: Applications of Trigonometry Chapter 8 Test	
Assignments	Notes
<u>Week 29, Day 1</u> <input type="checkbox"/> 8.7.1 An Introduction to Polar Coordinates <input type="checkbox"/> 8.7.2 Converting between Polar and Rectangular Coordinates	
<u>Week 29, Day 2</u> <input type="checkbox"/> 8.7.3 Converting between Polar and Rectangular Equations	
<u>Week 29, Day 3</u> <input type="checkbox"/> 8.7.4 Graphing Simple Polar Equations <input type="checkbox"/> 8.7.5 Graphing Special Polar Equations	
<u>Week 29, Day 4</u> <input type="checkbox"/> Chapter 8 Practice Test	
<u>Week 29, Day 5</u> <input type="checkbox"/> Chapter 8 Test	Chapter 8 Test Score: _____

Week 30 Chapter 9: Systems of Equations and Matrices	
Assignments	Notes

<u>Week 30, Day 1</u> <input type="checkbox"/> 9.1.1 An Introduction to Linear Systems <input type="checkbox"/> 9.1.2 Solving a System by Substitution	
<u>Week 30, Day 2</u> <input type="checkbox"/> 9.1.3 Solving a System by Elimination <input type="checkbox"/> 9.2.1 An Introduction to Linear Systems in Three Variables	
<u>Week 30, Day 3</u> <input type="checkbox"/> 9.2.2 Solving Linear Systems in Three Variables <input type="checkbox"/> 9.2.3 Solving Inconsistent Systems	
<u>Week 30, Day 4</u> <input type="checkbox"/> 9.2.4 Solving Dependent Systems <input type="checkbox"/> 9.2.5 Solving Systems with Two Equations	
<u>Week 30, Day 5</u> <input type="checkbox"/> 9.3.1 Investments <input type="checkbox"/> 9.3.2 Solving with Partial Fractions	

Week 31 Chapter 9: Systems of Equations and Matrices	
Assignments	Notes
<u>Week 31, Day 1</u> <input type="checkbox"/> 9.4.1 Solving Nonlinear Systems Using Elimination 9.4.2 Solving Nonlinear Systems by Substitution	
<u>Week 31, Day 2</u> <input type="checkbox"/> 9.5.1 An Introduction to Matrices <input type="checkbox"/> 9.5.2 The Arithmetic of Matrices	
<u>Week 31, Day 3</u> <input type="checkbox"/> 9.5.3 Multiplying Matrices by a Scalar <input type="checkbox"/> 9.5.4 Multiplying Matrices	
<u>Week 31, Day 4</u> <input type="checkbox"/> 9.6.1 Using the Gauss-Jordan Method <input type="checkbox"/> 9.6.2 Using Gauss-Jordan: Another Example	
<u>Week 31, Day 5</u> <input type="checkbox"/> 9.7.1 Evaluating 2×2 Determinants <input type="checkbox"/> 9.7.2 Evaluating $n \times n$ Determinants	

Week 32 Chapter 9: Systems of Equations and Matrices	
Assignments	Notes
<u>Week 32, Day 1</u> <input type="checkbox"/> 9.7.3 Finding a Determinant using Expanding by Cofactors <input type="checkbox"/> 9.7.4 Applying Determinants	
<u>Week 32, Day 2</u> <input type="checkbox"/> 9.8.1 Using Cramer's Rule <input type="checkbox"/> 9.8.2 Using Cramer's Rule in a 3×3 Matrix	

<u>Week 32, Day 3</u> <input type="checkbox"/> 9.9.1 An Introduction to Inverses <input type="checkbox"/> 9.9.2 Inverses: 2 x 2 Matrices <input type="checkbox"/> 9.9.3 Another Look at 2 x 2 Inverses	
<u>Week 32, Day 4</u> <input type="checkbox"/> 9.9.4 Inverses: 3 x 3 Matrices <input type="checkbox"/> 9.9.5 Solving a System of Equations with Inverses	
<u>Week 32, Day 5</u> <input type="checkbox"/> 9.10.1 An Introduction to Graphing Linear Inequalities <input type="checkbox"/> 9.10.2 Graphing Linear and Nonlinear Inequalities <input type="checkbox"/> 9.10.3 Graphing the Solution Set of a System of Inequalities	

Week 33 Chapter 9: Systems of Equations and Matrices Chapter 9 Test Chapter 10: Special Topics	
Assignments	Notes
<u>Week 33, Day 1</u> <input type="checkbox"/> 9.11.1 Solving for Maxima-Minima <input type="checkbox"/> 9.11.2 Applying Linear Programming	
<u>Week 33, Day 2</u> <input type="checkbox"/> Chapter 9 Practice Test	
<u>Week 33, Day 3</u> <input type="checkbox"/> Chapter 9 Test	Chapter 9 Test Score: _____
<u>Week 33, Day 4</u> <input type="checkbox"/> 10.1.1 An Introduction to Conic Sections <input type="checkbox"/> 10.1.2 An Introduction to Parabolas	
<u>Week 33, Day 5</u> <input type="checkbox"/> 10.1.3 Determining Information about a Parabola from Its Equation <input type="checkbox"/> 10.1.4 Writing an Equation for a Parabola	

Week 34 Chapter 10: Special Topics	
Assignments	Notes
<u>Week 34, Day 1</u> <input type="checkbox"/> 10.2.1 An Introduction to Ellipses <input type="checkbox"/> 10.2.2 Finding the Equation for an Ellipse	
<u>Week 34, Day 2</u> <input type="checkbox"/> 10.2.3 Applying Ellipses: Satellites <input type="checkbox"/> 10.3.1 An Introduction to Hyperbolas	
<u>Week 34, Day 3</u> <input type="checkbox"/> 10.3.2 Finding the Equation for a Hyperbola <input type="checkbox"/> 10.3.3 Applying Hyperbolas: Navigation	

<u>Week 34, Day 4</u> <input type="checkbox"/> 10.4.1 Identifying a Conic <input type="checkbox"/> 10.4.2 Name That Conic	
<u>Week 34, Day 5</u> <input type="checkbox"/> 10.4.3 Rotation of Axes <input type="checkbox"/> 10.4.4 Rotating Conics	

Week 35 Chapter 10: Special Topics	
Assignments	Notes
<u>Week 35, Day 1</u> <input type="checkbox"/> 10.5.1 Using the Binomial Theorem <input type="checkbox"/> 10.5.2 Binomial Coefficients <input type="checkbox"/> 10.5.3 Finding a Term of a Binomial Expansion	
<u>Week 35, Day 2</u> <input type="checkbox"/> 10.6.1 Understanding Sequence Problems <input type="checkbox"/> 10.6.2 Solving Problems Involving Arithmetic Sequences <input type="checkbox"/> 10.6.3 Solving Problems Involving Geometric Sequences	
<u>Week 35, Day 3</u> <input type="checkbox"/> 10.7.1 Proving Formulas Using Mathematical Induction <input type="checkbox"/> 10.7.2 Examples of Induction	
<u>Week 35, Day 4</u> <input type="checkbox"/> 10.8.1 Solving Problems Involving Permutations <input type="checkbox"/> 10.8.2 Solving Problems Involving Combinations	
<u>Week 35, Day 5</u> <input type="checkbox"/> 10.8.3 Independent Events <input type="checkbox"/> 10.8.4 Inclusive and Exclusive Events	

Week 36 Chapter 10 Test Final Exam	
Assignments	Notes
<u>Week 36, Day 1</u> <input type="checkbox"/> Chapter 10 Practice Test	
<u>Week 36, Day 2</u> <input type="checkbox"/> Chapter 10 Test	Chapter 10 Test Score: _____
<u>Week 36, Day 3</u> <input type="checkbox"/> Study for Final Exam	
<u>Week 36, Day 4</u> <input type="checkbox"/> Practice Final Exam	
<u>Week 36, Day 5</u> <input type="checkbox"/> Final Exam	Final Exam Score: _____