

Curriculum Map
Precalculus CP2 (346)
Saugus High School
Saugus Public Schools
2009-2010

Week 1		Week 2	
<p align="center">Performance Standards</p> <p><i>The students will:</i></p> <p>10.N.1 Identify and use the properties of operations on real numbers, including the associative, commutative, and distributive properties; the existence of the identity and inverse elements for addition and multiplication; the existence of n^{th} roots of positive real numbers for any positive integer n; and the inverse relationship between taking the n^{th} root of and the n^{th} power of a positive real number.</p> <p>10.P.2 Demonstrate an understanding of the relationship between various representations of a line. Determine a line's slope and x- and y-intercepts from its graph or from a linear equation that represents the line. Find a linear equation describing a line from a graph or a geometric description of the line, e.g., by using the "point-slope" or "slope y-intercept" formulas. Explain the significance of a positive, negative, zero, or undefined slope.</p> <p>10.P.6 Solve equations and inequalities including those involving absolute value of linear expressions (e.g., $x - 2 > 5$) and apply to the solution of problems.</p>		<p align="center">Performance Standards</p> <p><i>The students will:</i></p> <p>10.P.2 Demonstrate an understanding of the relationship between various representations of a line. Determine a line's slope and x- and y-intercepts from its graph or from a linear equation that represents the line. Find a linear equation describing a line from a graph or a geometric description of the line, e.g., by using the "point-slope" or "slope y-intercept" formulas. Explain the significance of a positive, negative, zero, or undefined slope.</p> <p>12.P.1 Describe, complete, extend, analyze, generalize, and create a wide variety of patterns, including iterative and recursive patterns such as Pascal's Triangle.</p> <p>12.P.2 Identify arithmetic and geometric sequences and finite arithmetic and geometric series. Use the properties of such sequences and series to solve problems, including finding the general term and sum recursively and explicitly.</p>	
<p align="center">Unit/Topic/Lesson</p> <p align="center">UNIT ONE</p> <p align="center">NUMBER PATTERNS</p> <ol style="list-style-type: none"> Real Numbers, Relations, and Functions Mathematical Patterns Lines 		<p align="center">Unit/Topic/Lesson</p> <p align="center">UNIT ONE</p> <p align="center">NUMBER PATTERNS</p> <ol style="list-style-type: none"> Lines Models Arithmetic Sequences Geometric Sequences 	
<p align="center">Mission and Expectations</p> <p>1. <i>Critical Thinking Skills</i> 2. <i>Problem Solving Skills</i> 3. <i>Test Taking Skills</i></p>		<p align="center">Mission and Expectations</p> <p>1. <i>Critical Thinking Skills</i> 2. <i>Problem Solving Skills</i> 3. <i>Test Taking Skills</i></p>	
<p align="center">Objectives</p> <ol style="list-style-type: none"> To work with the concepts involving real numbers, relations, and functions. To use functional notation. To create a graph of a sequence. To apply sequences to situation in the real world. To find slopes of lines, graph lines, and write the equations of lines. 	<p align="center">Essential Question</p> <p>How is the equation of line translated into various forms depending on the situation?</p>	<p align="center">Objectives</p> <ol style="list-style-type: none"> To interpret linear models and use a calculator to determine the model of best fit. To identify arithmetic and geometric sequences. To find a common difference of common ratio. To write sequences both recursively or explicitly. To find the n^{th} term of a given sequence or a partial sum. 	<p align="center">Essential Question</p> <p>What is the connection between linear function and arithmetic sequences?</p>
<p align="center">Teacher Resources</p> <p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> Chapter One lessons Chapter One Practice Worksheets Teacher-Made Assessments Graphing Calculator Manual Solution Key for all sections 	<p align="center">Media Resources</p> <p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> Teacher generated PowerPoint Presentations Student CD-ROMs Test ExamPro Generator One-Stop CD Planner 	<p align="center">Teacher Resources</p> <p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> Chapter One lessons Chapter One Practice Worksheets Teacher-Made Assessments Graphing Calculator Manual Solution Key for all sections 	<p align="center">Media Resources</p> <p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> Teacher generated PowerPoint Presentations Student CD-ROMs Test ExamPro Generator One-Stop CD Planner
<p align="center">Evaluation/Activities</p> <p>Homework: To be given daily on each introduced topic</p> <p>Review: All weekly concepts.</p> <p>Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>	<p align="center">Evaluation/Activities</p> <p>Homework: To be given daily on each introduced topic</p> <p>Review: All weekly concepts.</p> <p>Quiz: Assessments given as warranted by the curriculum.</p> <p>Test: On the concepts involving Number Patterns</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>

Week 3		Week 4	
<p align="center">Performance Standards</p> <p><i>The students will:</i> 12.P.6 Given algebraic, numeric and/or graphical representations, recognize functions as polynomial, rational, logarithmic, exponential, or trigonometric. 12.P.8 Solve a variety of equations and inequalities using algebraic, graphical, and numerical methods, including the quadratic formula; use technology where appropriate. Include polynomial, exponential, logarithmic, and trigonometric functions; expressions involving absolute values; trigonometric relations; and simple rational expressions.</p>		<p align="center">Performance Standards</p> <p><i>The students will:</i> 12.P.6 Given algebraic, numeric and/or graphical representations, recognize functions as polynomial, rational, logarithmic, exponential, or trigonometric. 12.P.8 Solve a variety of equations and inequalities using algebraic, graphical, and numerical methods, including the quadratic formula; use technology where appropriate. Include polynomial, exponential, logarithmic, and trigonometric functions; expressions involving absolute values; trigonometric relations; and simple rational expressions.</p>	
<p align="center">Unit/Topic/Lesson UNIT TWO EQUATIONS AND INEQUALITIES</p> <ol style="list-style-type: none"> Solving Equations Graphically Solving Quadratic Equations Applications and Uses of Equations 		<p align="center">Unit/Topic/Lesson UNIT TWO EQUATIONS AND INEQUALITIES</p> <ol style="list-style-type: none"> Various Types of Equations Inequalities 	
<p align="center">Mission and Expectations</p> <p>1. <i>Critical Thinking Skills</i> 2. <i>Problem Solving Skills</i> 3. <i>Test Taking Skills</i></p>		<p align="center">Mission and Expectations</p> <p>1. <i>Critical Thinking Skills</i> 2. <i>Problem Solving Skills</i> 3. <i>Test Taking Skills</i></p>	
<p align="center">Objectives</p> <ol style="list-style-type: none"> To solve equations graphically. To use a variety of methods to solve a quadratic equation. To solve application problems using a wide variety of methods. 	<p align="center">Essential Question</p> <p>How to you determine the appropriate method to solve a quadratic equation?</p>	<p align="center">Objectives</p> <ol style="list-style-type: none"> To solve absolute-value, radical, and fractional equations. To use interval notation. To solve linear inequalities and compound linear inequalities. 	<p align="center">Essential Question</p> <p>What are the basic principles for solving inequalities?</p>
<p align="center">Teacher Resources <i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> Chapter Two lessons Chapter Two Practice Worksheets Teacher-Made Assessments Graphing Calculator Manual Solution Key for all sections 	<p align="center">Media Resources <i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> Teacher generated PowerPoint Presentations Student CD-ROMs Test ExamPro Generator One-Stop CD Planner 	<p align="center">Teacher Resources <i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> Chapter Two lessons Chapter Two Practice Worksheets Teacher-Made Assessments Graphing Calculator Manual Solution Key for all sections 	<p align="center">Media Resources <i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> Teacher generated PowerPoint Presentations Student CD-ROMs Test ExamPro Generator One-Stop CD Planner
<p align="center">Evaluation/Activities</p> <p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>	<p align="center">Evaluation/Activities</p> <p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum. Test: On the concepts involving Equations and Inequalities</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>

Week 5		Week 6	
<p align="center">Performance Standards</p> <p><i>The students will:</i></p> <p>12.P.1 Describe, complete, extend, analyze, generalize, and create a wide variety of patterns, including iterative and recursive patterns such as Pascal's Triangle.</p> <p>12.P.5 Perform operations on functions, including composition. Find inverses of functions.</p> <p>12.P.6 Given algebraic, numeric and/or graphical representations, recognize functions as polynomial, rational, logarithmic, exponential, or trigonometric.</p> <p>12.P.7 Find solutions to quadratic equations (with real coefficients and real or complex roots) and apply to the solutions of problems.</p>		<p align="center">Performance Standards</p> <p><i>The students will:</i></p> <p>12.N.1 Define complex numbers (e.g., $a + bi$) and operations on them, in particular, addition, subtraction, multiplication, and division. Relate the system of complex numbers to the systems of real and rational numbers.</p> <p>12.N.2 Simplify numerical expressions with powers and roots, including fractional and negative exponents.</p> <p>12.P.4 Demonstrate an understanding of the trigonometric, exponential, and logarithmic functions.</p> <p>12.P.8 Solve a variety of equations and inequalities using algebraic, graphical, and numerical methods, including the quadratic formula; use technology where appropriate. Include polynomial, exponential, logarithmic, and trigonometric functions; expressions involving absolute values; trigonometric relations; and simple rational expressions.</p>	
<p align="center">Unit/Topic/Lesson</p> <p align="center">UNIT THREE</p> <p align="center">FUNCTIONS AND THEIR GRAPHS</p> <ol style="list-style-type: none"> Introduction to Functions Graphs of Functions Quadratic Functions 		<p align="center">Unit/Topic/Lesson</p> <p align="center">UNIT THREE</p> <p align="center">FUNCTIONS AND THEIR GRAPHS</p> <ol style="list-style-type: none"> Graphs and Transformations Operations on Functions 	
<p align="center">Mission and Expectations</p> <p><i>1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills</i></p>		<p align="center">Mission and Expectations</p> <p><i>1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills</i></p>	
<p align="center">Objectives</p> <ol style="list-style-type: none"> To determine whether a relation is a function. To find the domain of a function. To determine a graph to be a function. To identify parts of a parabola based on the equation of the function. To convert from one form of a quadratic function to another. 	<p align="center">Essential Question</p> <p>How is the domain and range of a function, determined from the graph of that function?</p>	<p align="center">Objectives</p> <ol style="list-style-type: none"> To define parent functions. To transform graphs of parent functions. To form sum, difference, product and quotient functions and find their domain. To form composite functions and find their domain. 	<p align="center">Essential Question</p> <p>What are the algebraic similarities that exist within a family of functions?</p>
<p align="center">Teacher Resources</p> <p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> Chapter Three lessons Chapter Three Practice Worksheets Teacher-Made Assessments Graphing Calculator Manual Solution Key for all sections 	<p align="center">Media Resources</p> <p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> Teacher generated PowerPoint Presentations Student CD-ROMs Test ExamPro Generator One-Stop CD Planner 	<p align="center">Teacher Resources</p> <p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> Chapter Three lessons Chapter Three Practice Worksheets Teacher-Made Assessments Graphing Calculator Manual Solution Key for all sections 	<p align="center">Media Resources</p> <p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> Teacher generated PowerPoint Presentations Student CD-ROMs Test ExamPro Generator One-Stop CD Planner
<p align="center">Evaluation/Activities</p> <p>Homework: To be given daily on each introduced topic</p> <p>Review: All weekly concepts.</p> <p>Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>	<p align="center">Evaluation/Activities</p> <p>Homework: To be given daily on each introduced topic</p> <p>Review: All weekly concepts.</p> <p>Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>

Week 7		Week 8	
Performance Standards		Performance Standards	
<p><i>The students will:</i> 12.P.5 Perform operations on functions, including composition. Find inverses of functions. 12.P.6 Given algebraic, numeric and/or graphical representations, recognize functions as polynomial, rational, logarithmic, exponential, or trigonometric. 12.P.12 Relate the slope of a tangent line at a specific point on a curve to the instantaneous rate of change. Identify maximum and minimum values of functions in simple situations. Apply these concepts to the solution of problems.</p>		<p><i>The students will:</i> 12.P.6 Given algebraic, numeric and/or graphical representations, recognize functions as polynomial, rational, logarithmic, exponential, or trigonometric.</p>	
Unit/Topic/Lesson UNIT THREE FUNCTIONS AND THEIR GRAPHS		Unit/Topic/Lesson UNIT FOUR POLYNOMIAL AND RATIONAL FUNCTIONS	
<ol style="list-style-type: none"> 1. Inverse Functions 2. Rates of Change 		<ol style="list-style-type: none"> 1. Polynomial Functions 2. Real Zeros 	
Mission and Expectations		Mission and Expectations	
<ol style="list-style-type: none"> 1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills 		<ol style="list-style-type: none"> 1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills 	
Objectives <ol style="list-style-type: none"> 1. To define inverse relations and functions. 2. To find inverse relations from tables, graphs, and equations. 3. To determine whether an inverse relation is a function. 4. To find the average rate of change of a function over an interval. 5. To work with and solve various problems involving the average rate of change. 	Essential Question What is the algebraic process that is used to find the inverse of a function?	Objectives <ol style="list-style-type: none"> 1. To define and divide polynomials. 2. To apply the Remainder and Factor Theorems and make connections between remainders and factors. 3. To determine the maximum number of zeros of a polynomial. 4. To find all rational zeros of a polynomial function. 5. To factor a polynomial completely. 	Essential Question What is the procedure that is used to find real zeros of a polynomial function?
Teacher Resources <i>Holt Precalculus ©2006</i> <ol style="list-style-type: none"> 1. Chapter Three lessons 2. Chapter Three Practice Worksheets 3. Teacher-Made Assessments 4. Graphing Calculator Manual 5. Solution Key for all sections 	Media Resources <i>Holt Precalculus ©2006</i> <ol style="list-style-type: none"> 1. Teacher generated PowerPoint Presentations 2. Student CD-ROMs 3. Test ExamPro Generator 4. One-Stop CD Planner 	Teacher Resources <i>Holt Precalculus ©2006</i> <ol style="list-style-type: none"> 1. Chapter Four lessons 2. Chapter Four Practice Worksheets 3. Teacher-Made Assessments 4. Graphing Calculator Manual 5. Solution Key for all sections 	Media Resources <i>Holt Precalculus ©2006</i> <ol style="list-style-type: none"> 1. Teacher generated PowerPoint Presentations 2. Student CD-ROMs 3. Test ExamPro Generator 4. One-Stop CD Planner
Evaluation/Activities Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum. Test: On concepts involving Functions and Their Graphs.	Completion date: Completed by: Comments:	Evaluation/Activities Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum.	Completion date: Completed by: Comments:

Week 9		Week 10	
Performance Standards		Performance Standards	
<p>The students will:</p> <p>12.P.6 Given algebraic, numeric and/or graphical representations, recognize functions as polynomial, rational, logarithmic, exponential, or trigonometric.</p> <p>12.P.8 Solve a variety of equations and inequalities using algebraic, graphical, and numerical methods, including the quadratic formula; use technology where appropriate. Include polynomial, exponential, logarithmic, and trigonometric functions; expressions involving absolute values; trigonometric relations; and simple rational expressions.</p>		<p>The students will:</p> <p>12.N.1 Define complex numbers (e.g., $a + bi$) and operations on them, in particular, addition, subtraction, multiplication, and division. Relate the system of complex numbers to the systems of real and rational numbers.</p> <p>12.P.7 Find solutions to quadratic equations (with real coefficients and real or complex roots) and apply to the solutions of problems.</p> <p>12.P.8 Solve a variety of equations and inequalities using algebraic, graphical, and numerical methods, including the quadratic formula; use technology where appropriate. Include polynomial, exponential, logarithmic, and trigonometric functions; expressions involving absolute values; trigonometric relations; and simple rational expressions.</p>	
Unit/Topic/Lesson UNIT FOUR POLYNOMIAL AND RATIONAL FUNCTIONS		Unit/Topic/Lesson UNIT FOUR POLYNOMIAL AND RATIONAL FUNCTIONS	
1. Graphs of Polynomial Functions 2. Rational Function		1. Complex Numbers 2. The Fundamental Theorem of Algebra	
Mission and Expectations		Mission and Expectations	
1. <i>Critical Thinking Skills</i> 2. <i>Problem Solving Skills</i> 3. <i>Test Taking Skills</i>		1. <i>Critical Thinking Skills</i> 2. <i>Problem Solving Skills</i> 3. <i>Test Taking Skills</i>	
Objectives	Essential Question	Objectives	Essential Question
1. To recognize and describe the graphs of various polynomial functions. 2. To identify the properties of general polynomial functions. 3. To find the domain of a rational function. 4. To find intercepts, asymptotes, and holes. 5. To describe the end behavior of a function. 6. To sketch various functions.	How can you determine the possible degree of a function by looking at the function's graph?	1. To write and perform arithmetic operations on complex numbers. 2. To find the conjugate of a complex number. 3. To simplify square roots of negative numbers. 4. To use the Fundamental Theorem of Algebra. 5. To find the number of zeros of a polynomial. 6. To give the complete factorization of polynomial expressions.	Why does every nonconstant polynomial have a zero in the complex number system?
Teacher Resources	Media Resources	Teacher Resources	Media Resources
<i>Holt Precalculus</i> ©2006 1. Chapter Four lessons 2. Chapter Four Practice Worksheets 3. Teacher-Made Assessments 4. Graphing Calculator Manual 5. Solution Key for all sections	<i>Holt Precalculus</i> ©2006 1. Teacher generated PowerPoint Presentations 2. Student CD-ROMs 3. Test ExamPro Generator 4. One-Stop CD Planner	<i>Holt Precalculus</i> ©2006 1. Chapter Four lessons 2. Chapter Four Practice Worksheets 3. Teacher-Made Assessments 4. Graphing Calculator Manual 5. Solution Key for all sections	<i>Holt Precalculus</i> ©2006 1. Teacher generated PowerPoint Presentations 2. Student CD-ROMs 3. Test ExamPro Generator 4. One-Stop CD Planner
Evaluation/Activities	Completion date:	Evaluation/Activities	Completion date:
Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum.	Completed by:	Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum. Test: On concepts involving Polynomial and Rational Functions.	Completed by:
	Comments:		Comments:

Week 11		Week 12	
<p align="center">Performance Standards</p> <p><i>The students will:</i></p> <p>12.N.2 Simplify numerical expressions with powers and roots, including fractional and negative exponents. 12.P.4 Demonstrate an understanding of the trigonometric, exponential, and logarithmic functions.</p>		<p align="center">Performance Standards</p> <p><i>The students will:</i></p> <p>12.P.4 Demonstrate an understanding of the trigonometric, exponential, and logarithmic functions. 12.P.8 Solve a variety of equations and inequalities using algebraic, graphical, and numerical methods, including the quadratic formula; use technology where appropriate. Include polynomial, exponential, logarithmic, and trigonometric functions; expressions involving absolute values; trigonometric relations; and simple rational expressions.</p>	
<p align="center">Unit/Topic/Lesson UNIT FIVE EXPONENTIAL AND LOGARITHMIC FUNCTIONS</p> <ol style="list-style-type: none"> Radical and Rational Exponents Exponential Functions 		<p align="center">Unit/Topic/Lesson UNIT FIVE EXPONENTIAL AND LOGARITHMIC FUNCTIONS</p> <ol style="list-style-type: none"> Applications Using Exponential Functions Common Logarithmic Functions Natural Logarithmic Functions 	
<p align="center">Mission and Expectations</p> <p><i>1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills</i></p>		<p align="center">Mission and Expectations</p> <p><i>1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills</i></p>	
<p align="center">Objectives</p> <ol style="list-style-type: none"> To simplify expressions containing radicals or rational exponents. To graph and identify transformations of exponential functions. To solve application problems involving exponential functions. 	<p align="center">Essential Question</p> <p>How do you convert between radical and exponential notation?</p>	<p align="center">Objectives</p> <ol style="list-style-type: none"> To solve application problems involving exponential functions. To evaluate common and natural logarithms. To solve problems involving common and natural exponential and logarithmic equations. To graph transformations of common and natural logarithmic functions. 	<p align="center">Essential Question</p> <p>What is the mathematical relationship between logarithmic and exponential functions?</p>
<p align="center">Teacher Resources <i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> Chapter Five lessons Chapter Five Practice Worksheets Teacher-Made Assessments Graphing Calculator Manual Solution Key for all sections 	<p align="center">Media Resources <i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> Teacher generated PowerPoint Presentations Student CD-ROMs Test ExamPro Generator One-Stop CD Planner 	<p align="center">Teacher Resources <i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> Chapter Five lessons Chapter Five Practice Worksheets Teacher-Made Assessments Graphing Calculator Manual Solution Key for all sections 	<p align="center">Media Resources <i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> Teacher generated PowerPoint Presentations Student CD-ROMs Test ExamPro Generator One-Stop CD Planner
<p align="center">Evaluation/Activities</p> <p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>	<p align="center">Evaluation/Activities</p> <p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>

Week 13		Week 14	
Performance Standards		Performance Standards	
<p>The students will:</p> <p>12.P.4 Demonstrate an understanding of the trigonometric, exponential, and logarithmic functions.</p> <p>12.P.8 Solve a variety of equations and inequalities using algebraic, graphical, and numerical methods, including the quadratic formula; use technology where appropriate. Include polynomial, exponential, logarithmic, and trigonometric functions; expressions involving absolute values; trigonometric relations; and simple rational expressions.</p>		<p>The students will:</p> <p>12.P.4 Demonstrate an understanding of the trigonometric, exponential, and logarithmic functions.</p> <p>12.P.8 Solve a variety of equations and inequalities using algebraic, graphical, and numerical methods, including the quadratic formula; use technology where appropriate. Include polynomial, exponential, logarithmic, and trigonometric functions; expressions involving absolute values; trigonometric relations; and simple rational expressions.</p>	
Unit/Topic/Lesson UNIT FIVE EXPONENTIAL AND LOGARITHMIC FUNCTIONS		Unit/Topic/Lesson UNIT FIVE EXPONENTIAL AND LOGARITHMIC FUNCTIONS	
<ol style="list-style-type: none"> Properties of Logarithms Laws of Logarithms Solving Exponential Equations 		<ol style="list-style-type: none"> Solving Logarithmic Equations Modeling with Exponential and Logarithmic Functions 	
Mission and Expectations		Mission and Expectations	
<ol style="list-style-type: none"> Critical Thinking Skills Problem Solving Skills Test Taking Skills 		<ol style="list-style-type: none"> Critical Thinking Skills Problem Solving Skills Test Taking Skills 	
Objectives	Essential Question	Objectives	Essential Question
<ol style="list-style-type: none"> To use the properties and laws of logarithms to simplify and evaluate expressions. To solve exponential equations. 	How are the properties and laws of logarithms used to simplify expressions?	<ol style="list-style-type: none"> To solve logarithmic equations. To solve a variety of application problems by using exponential and logarithmic equations. 	How are exponential and logarithmic models used along with polynomial models to solve real world situations?
Teacher Resources	Media Resources	Teacher Resources	Media Resources
<i>Holt Precalculus ©2006</i> <ol style="list-style-type: none"> Chapter Five lessons Chapter Five Practice Worksheets Teacher-Made Assessments Graphing Calculator Manual Solution Key for all sections 	<i>Holt Precalculus ©2006</i> <ol style="list-style-type: none"> Teacher generated PowerPoint Presentations Student CD-ROMs Test ExamPro Generator One-Stop CD Planner 	<i>Holt Precalculus ©2006</i> <ol style="list-style-type: none"> Chapter Five lessons Chapter Five Practice Worksheets Teacher-Made Assessments Graphing Calculator Manual Solution Key for all sections 	<i>Holt Precalculus ©2006</i> <ol style="list-style-type: none"> Teacher generated PowerPoint Presentations Student CD-ROMs Test ExamPro Generator One-Stop CD Planner
Evaluation/Activities		Evaluation/Activities	
<p>Homework: To be given daily on each introduced topic</p> <p>Review: All weekly concepts.</p> <p>Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>	<p>Homework: To be given daily on each introduced topic</p> <p>Review: All weekly concepts.</p> <p>Quiz: Assessments given as warranted by the curriculum.</p> <p>Test: On concepts involving Exponential and Logarithmic Functions.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>

Week 15		Week 16	
Performance Standards		Performance Standards	
<p><i>The students will:</i></p> <p>12.G.1 Define the sine, cosine, and tangent of an acute angle. Apply to the solution of problems. 12.G.2 Derive and apply basic trigonometric identities (e.g., $\sin^2\theta + \cos^2\theta = 1$, $\tan^2\theta + 1 = \sec^2\theta$) and the laws of sines and cosines.</p>		<p><i>The students will:</i></p> <p>12.M.1 Describe the relationship between degree and radian measures, and use radian measure in the solution of problems, in particular, problems involving angular velocity and acceleration.</p>	
Unit/Topic/Lesson UNIT SIX TRIGONOMETRY		Unit/Topic/Lesson UNIT SIX TRIGONOMETRY	
<ol style="list-style-type: none"> 1. Right Triangle Trigonometry 2. Trigonometric Ratios 3. Conversion Between Decimal and DMS Form 4. Special Angles 5. Solving Right Triangles 6. Right Triangle Real World Situations 		<ol style="list-style-type: none"> 1. Indirect Measurement 2. Extending Angle Measure 3. Conterminal Angles 4. Radian Angle Measure 5. Conversion Between Degrees and Radians 6. Arc Length 	
Mission and Expectations		Mission and Expectations	
<ol style="list-style-type: none"> 1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills 		<ol style="list-style-type: none"> 1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills 	
Objectives	Essential Question	Objectives	Essential Question
<ol style="list-style-type: none"> 1. To define the six trigonometric ratios of an acute angle in terms of a right triangle. 2. To evaluate trigonometric ratios using triangles and/or calculators. 3. To solve triangles using trigonometric ratios. 4. To solve applications using triangles. 	<p>How is right triangle trigonometry used to solve right triangles?</p>	<ol style="list-style-type: none"> 1. To solve applications using triangles. 2. To use a rotating ray to extend the definition of angle measure to negative angles and angles greater than 180 degrees. 3. To define radian measure and convert angle measures between degrees and radians. 	<p>How are angle measurements converted between degree and radian measure?</p>
Teacher Resources	Media Resources	Teacher Resources	Media Resources
<p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> 1. Chapter Six lessons 2. Chapter Six Practice Worksheets 3. Teacher-Made Assessments 4. Graphing Calculator Manual 5. Solution Key for all sections 	<p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> 1. Teacher generated PowerPoint Presentations 2. Student CD-ROMs 3. Test ExamPro Generator 4. One-Stop CD Planner 	<p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> 1. Chapter Six lessons 2. Chapter Six Practice Worksheets 3. Teacher-Made Assessments 4. Graphing Calculator Manual 5. Solution Key for all sections 	<p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> 1. Teacher generated PowerPoint Presentations 2. Student CD-ROMs 3. Test ExamPro Generator 4. One-Stop CD Planner
Evaluation/Activities	Completion date:	Evaluation/Activities	Completion date:
<p>Homework: To be given daily on each introduced topic</p> <p>Review: All weekly concepts.</p> <p>Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completed by:</p> <p>Comments:</p>	<p>Homework: To be given daily on each introduced topic</p> <p>Review: All weekly concepts.</p> <p>Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completed by:</p> <p>Comments:</p>

Week 17		Week 18	
Performance Standards		Performance Standards	
<p><i>The students will:</i> 12.M.1 Describe the relationship between degree and radian measures, and use radian measure in the solution of problems, in particular, problems involving angular velocity and acceleration.</p>		<p><i>The students will:</i> 12.G.2 Derive and apply basic trigonometric identities (e.g., $\sin^2\theta + \cos^2\theta = 1$, $\tan^2\theta + 1 = \sec^2\theta$) and the laws of sines and cosines.</p>	
Unit/Topic/Lesson UNIT SIX TRIGONOMETRY		Unit/Topic/Lesson UNIT SIX TRIGONOMETRY	
<ol style="list-style-type: none"> 1. Trigonometric Functions 2. Trigonometric Ratios in the Coordinate Plane 3. Unit Circle 4. Reference Angles 5. Finding Trigonometric Values 		<ol style="list-style-type: none"> 1. Quotient Identities 2. Reciprocal Identities 3. Pythagorean Identities 4. Periodicity Identities 5. Negative Angle Identities 	
Mission and Expectations		Mission and Expectations	
<ol style="list-style-type: none"> 1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills 		<ol style="list-style-type: none"> 1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills 	
Objectives	Essential Question	Objectives	Essential Question
<ol style="list-style-type: none"> 1. To define the trigonometric ratios in the coordinate plane. 2. To define trigonometric functions in terms of the unit circle. 	<p>How is the unit circle used to describe trigonometric functions?</p>	<ol style="list-style-type: none"> 1. To develop basic trigonometric identities. 2. To prove and work with basic trigonometric identities. 	<p>What are the relationships between the Pythagorean identities for Trigonometry?</p>
Teacher Resources <i>Holt Precalculus ©2006</i>	Media Resources <i>Holt Precalculus ©2006</i>	Teacher Resources <i>Holt Precalculus ©2006</i>	Media Resources <i>Holt Precalculus ©2006</i>
<ol style="list-style-type: none"> 1. Chapter Six lessons 2. Chapter Six Practice Worksheets 3. Teacher-Made Assessments 4. Graphing Calculator Manual 5. Solution Key for all sections 	<ol style="list-style-type: none"> 1. Teacher generated PowerPoint Presentations 2. Student CD-ROMs 3. Test ExamPro Generator 4. One-Stop CD Planner 	<ol style="list-style-type: none"> 1. Chapter Six lessons 2. Chapter Six Practice Worksheets 3. Teacher-Made Assessments 4. Graphing Calculator Manual 5. Solution Key for all sections 	<ol style="list-style-type: none"> 1. Teacher generated PowerPoint Presentations 2. Student CD-ROMs 3. Test ExamPro Generator 4. One-Stop CD Planner
Evaluation/Activities		Evaluation/Activities	
<p>Homework: To be given daily on each introduced topic</p> <p>Review: All weekly concepts.</p> <p>Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>	<p>Homework: To be given daily on each introduced topic</p> <p>Review: All weekly concepts.</p> <p>Quiz: Assessments given as warranted by the curriculum.</p> <p>Test: On concepts involving Trigonometry.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>

Week 19		Week 20	
Performance Standards		Performance Standards	
<p>The students will: 12.P.4 Demonstrate an understanding of the trigonometric, exponential, and logarithmic functions. 12.G.1 Define the sine, cosine, and tangent of an acute angle. Apply to the solution of problems.</p>		<p>The students will: 12.P.4 Demonstrate an understanding of the trigonometric, exponential, and logarithmic functions. 12.G.1 Define the sine, cosine, and tangent of an acute angle. Apply to the solution of problems.</p>	
Unit/Topic/Lesson UNIT SEVEN TRIGONOMETRIC GRAPHS		Unit/Topic/Lesson UNIT SEVEN TRIGONOMETRIC GRAPHS	
<ol style="list-style-type: none"> Graphs of the Sine Functions Graphs of the Cosine Functions Graphs of the Tangent Functions 		<ol style="list-style-type: none"> Graphs of the Cosecant Functions Graphs of the Secant Functions Graphs of the Cotangent Functions 	
Mission and Expectations		Mission and Expectations	
<ol style="list-style-type: none"> Critical Thinking Skills Problem Solving Skills Test Taking Skills 		<ol style="list-style-type: none"> Critical Thinking Skills Problem Solving Skills Test Taking Skills 	
Objectives	Essential Question	Objectives	Essential Question
<ol style="list-style-type: none"> To graph the basic trigonometric functions. To state the domain and range of these trigonometric functions. To graph transformations of these basic trigonometric functions. 	<p>How do you graph the basic trigonometric functions on coordinate plane?</p>	<ol style="list-style-type: none"> To graph the cosecant, secant, and cotangent functions. To graph the transformations of the cosecant, secant, and cotangent functions. 	<p>How do transformations effect the trigonometric graphs of each inverse function?</p>
Teacher Resources <i>Holt Precalculus ©2006</i>	Media Resources <i>Holt Precalculus ©2006</i>	Teacher Resources <i>Holt Precalculus ©2006</i>	Media Resources <i>Holt Precalculus ©2006</i>
<ol style="list-style-type: none"> Chapter Seven lessons Chapter Seven Practice Worksheets Teacher-Made Assessments Graphing Calculator Manual Solution Key for all sections 	<ol style="list-style-type: none"> Teacher generated PowerPoint Presentations Student CD-ROMs Test ExamPro Generator One-Stop CD Planner 	<ol style="list-style-type: none"> Chapter Seven lessons Chapter Seven Practice Worksheets Teacher-Made Assessments Graphing Calculator Manual Solution Key for all sections 	<ol style="list-style-type: none"> Teacher generated PowerPoint Presentations Student CD-ROMs Test ExamPro Generator One-Stop CD Planner
Evaluation/Activities		Evaluation/Activities	
<p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date: Completed by: Comments:</p>	<p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date: Completed by: Comments:</p>

Week 21		Week 22	
Performance Standards		Performance Standards	
<p><i>The students will:</i></p> <p>12.P.4 Demonstrate an understanding of the trigonometric, exponential, and logarithmic functions.</p>		<p><i>The students will:</i></p> <p>12.P.4 Demonstrate an understanding of the trigonometric, exponential, and logarithmic functions.</p> <p>12.G.1 Define the sine, cosine, and tangent of an acute angle. Apply to the solution of problems.</p>	
Unit/Topic/Lesson UNIT SEVEN TRIGONOMETRIC GRAPHS		Unit/Topic/Lesson UNIT SEVEN TRIGONOMETRIC GRAPHS	
<ol style="list-style-type: none"> 1. Periodic Graphs 2. Amplitude 3. Amplitude and Period 		<ol style="list-style-type: none"> 1. Vertical Shifts 2. Phase Shifts 3. Combined Transformations 4. Graphs and Identities 	
Mission and Expectations		Mission and Expectations	
<ol style="list-style-type: none"> 1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills 		<ol style="list-style-type: none"> 1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills 	
Objectives	Essential Question	Objectives	Essential Question
<ol style="list-style-type: none"> 1. To state the period and amplitude of basic trigonometric functions. 2. To sketch the graphs of these basic trigonometric functions using period and amplitude. 	<p>How do you determine the period and amplitude of a trigonometric function without looking at the graph of the function?</p>	<ol style="list-style-type: none"> 1. To state the period, amplitude, vertical shift, and phase shift of basic trigonometric functions. 2. To use graphs to determine whether an equation could possibly be an identity. 	<p>How do you use graphs of trigonometric functions to determine trigonometric identities?</p>
Teacher Resources	Media Resources	Teacher Resources	Media Resources
<p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> 1. Chapter Seven lessons 2. Chapter Seven Practice Worksheets 3. Teacher-Made Assessments 4. Graphing Calculator Manual 5. Solution Key for all sections 	<p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> 1. Teacher generated PowerPoint Presentations 2. Student CD-ROMs 3. Test ExamPro Generator 4. One-Stop CD Planner 	<p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> 1. Chapter Seven lessons 2. Chapter Seven Practice Worksheets 3. Teacher-Made Assessments 4. Graphing Calculator Manual 5. Solution Key for all sections 	<p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> 1. Teacher generated PowerPoint Presentations 2. Student CD-ROMs 3. Test ExamPro Generator 4. One-Stop CD Planner
Evaluation/Activities		Evaluation/Activities	
<p>Homework: To be given daily on each introduced topic</p> <p>Review: All weekly concepts.</p> <p>Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>	<p>Homework: To be given daily on each introduced topic</p> <p>Review: All weekly concepts.</p> <p>Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>

Week 23		Week 24	
Performance Standards		Performance Standards	
<i>The students will:</i>		<i>The students will:</i>	
<p>12.P.4 Demonstrate an understanding of the trigonometric, exponential, and logarithmic functions.</p> <p>12.G.1 Define the sine, cosine, and tangent of an acute angle. Apply to the solution of problems.</p> <p>12.G.2 Derive and apply basic trigonometric identities (e.g., $\sin^2\theta + \cos^2\theta = 1$, $\tan^2\theta + 1 = \sec^2\theta$) and the laws of sines and cosines.</p>		<p>12.P.4 Demonstrate an understanding of the trigonometric, exponential, and logarithmic functions.</p> <p>12.G.1 Define the sine, cosine, and tangent of an acute angle. Apply to the solution of problems.</p>	
Unit/Topic/Lesson UNIT SEVEN TRIGONOMETRIC GRAPHS		Unit/Topic/Lesson UNIT EIGHT SOLVING TRIGONOMETRIC EQUATIONS	
<ol style="list-style-type: none"> Review of Amplitude Concepts Review of Period Concepts Review of Phase Shift Concepts Review of Vertical Shift Concepts 		<ol style="list-style-type: none"> Basic Trigonometric Equations Solving Trigonometric Equations Graphically Trigonometric Equations in Degree Measure 	
Mission and Expectations		Mission and Expectations	
<ol style="list-style-type: none"> Critical Thinking Skills Problem Solving Skills Test Taking Skills 		<ol style="list-style-type: none"> Critical Thinking Skills Problem Solving Skills Test Taking Skills 	
Objectives	Essential Question	Objectives	Essential Question
<ol style="list-style-type: none"> To review the concepts of period, amplitude, vertical shift, and phase shift of basic trigonometric functions. To use these concepts to graph trigonometric functions. 	What are the physical effects on a graph of trigonometric functions regarding period, phase shift and amplitude?	<ol style="list-style-type: none"> To solve trigonometric equations graphically. To state the complete solution to a trigonometric equation. 	What is the process for solving a trigonometric equation graphically?
Teacher Resources	Media Resources	Teacher Resources	Media Resources
<i>Holt Precalculus ©2006</i> <ol style="list-style-type: none"> Chapter Seven lessons Chapter Seven Practice Worksheets Teacher-Made Assessments Graphing Calculator Manual Solution Key for all sections 	<i>Holt Precalculus ©2006</i> <ol style="list-style-type: none"> Teacher generated PowerPoint Presentations Student CD-ROMs Test ExamPro Generator One-Stop CD Planner 	<i>Holt Precalculus ©2006</i> <ol style="list-style-type: none"> Chapter Eight lessons Chapter Eight Practice Worksheets Teacher-Made Assessments Graphing Calculator Manual Solution Key for all sections 	<i>Holt Precalculus ©2006</i> <ol style="list-style-type: none"> Teacher generated PowerPoint Presentations Student CD-ROMs Test ExamPro Generator One-Stop CD Planner
Evaluation/Activities	Completion date:	Evaluation/Activities	Completion date:
<p>Homework: To be given daily on each introduced topic</p> <p>Review: All weekly concepts.</p> <p>Quiz: Assessments given as warranted by the curriculum.</p> <p>Test: On concepts involving</p>	<p>Completed by:</p> <p>Comments:</p>	<p>Homework: To be given daily on each introduced topic</p> <p>Review: All weekly concepts.</p> <p>Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completed by:</p> <p>Comments:</p>

Week 25		Week 26	
Performance Standards		Performance Standards	
<p><i>The students will:</i></p> <p>12.P.4 Demonstrate an understanding of the trigonometric, exponential, and logarithmic functions.</p> <p>12.G.1 Define the sine, cosine, and tangent of an acute angle. Apply to the solution of problems.</p>		<p><i>The students will:</i></p> <p>12.P.4 Demonstrate an understanding of the trigonometric, exponential, and logarithmic functions.</p> <p>12.G.1 Define the sine, cosine, and tangent of an acute angle. Apply to the solution of problems.</p> <p>12.G.2 Derive and apply basic trigonometric identities (e.g., $\sin^2\theta + \cos^2\theta = 1$, $\tan^2\theta + 1 = \sec^2\theta$) and the laws of sines and cosines.</p>	
Unit/Topic/Lesson UNIT EIGHT SOLVING TRIGONOMETRIC EQUATIONS		Unit/Topic/Lesson UNIT EIGHT SOLVING TRIGONOMETRIC EQUATIONS	
<ol style="list-style-type: none"> Inverse Trigonometric Functions Properties of Inverse Trigonometric Functions 		<ol style="list-style-type: none"> Algebraic Solutions of Trigonometric Equations Algebraic Techniques Using Identities and Factoring 	
Mission and Expectations		Mission and Expectations	
<ol style="list-style-type: none"> Critical Thinking Skills Problem Solving Skills Test Taking Skills 		<ol style="list-style-type: none"> Critical Thinking Skills Problem Solving Skills Test Taking Skills 	
Objectives	Essential Question	Objectives	Essential Question
<ol style="list-style-type: none"> To define the domain and range of inverse trigonometric functions. To use inverse trigonometric function notation. 	What is the difference between sine function and the restricted sine function and why is it important when working with the inverse sine function?	<ol style="list-style-type: none"> To solve trigonometric equations algebraically. To work with a variety of techniques to solve trigonometric equations. 	How do you algebraically solve a trigonometric equation?
Teacher Resources	Media Resources	Teacher Resources	Media Resources
<i>Holt Precalculus ©2006</i> <ol style="list-style-type: none"> Chapter Eight lessons Chapter Eight Practice Worksheets Teacher-Made Assessments Graphing Calculator Manual Solution Key for all sections 	<i>Holt Precalculus ©2006</i> <ol style="list-style-type: none"> Teacher generated PowerPoint Presentations Student CD-ROMs Test ExamPro Generator One-Stop CD Planner 	<i>Holt Precalculus ©2006</i> <ol style="list-style-type: none"> Chapter Eight lessons Chapter Eight Practice Worksheets Teacher-Made Assessments Graphing Calculator Manual Solution Key for all sections 	<i>Holt Precalculus ©2006</i> <ol style="list-style-type: none"> Teacher generated PowerPoint Presentations Student CD-ROMs Test ExamPro Generator One-Stop CD Planner
Evaluation/Activities		Evaluation/Activities	
<p>Homework: To be given daily on each introduced topic</p> <p>Review: All weekly concepts.</p> <p>Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>	<p>Homework: To be given daily on each introduced topic</p> <p>Review: All weekly concepts.</p> <p>Quiz: Assessments given as warranted by the curriculum.</p> <p>Test: On concepts involving Solving Trigonometric Equations.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>

Week 27		Week 28	
Performance Standards		Performance Standards	
<p><i>The students will:</i> 12.P.4 Demonstrate an understanding of the trigonometric, exponential, and logarithmic functions. 12.G.1 Define the sine, cosine, and tangent of an acute angle. Apply to the solution of problems. 12.G.2 Derive and apply basic trigonometric identities (e.g., $\sin^2\theta + \cos^2\theta = 1$, $\tan^2\theta + 1 = \sec^2\theta$) and the laws of sines and cosines.</p>		<p><i>The students will:</i> 12.P.4 Demonstrate an understanding of the trigonometric, exponential, and logarithmic functions. 12.G.1 Define the sine, cosine, and tangent of an acute angle. Apply to the solution of problems. 12.G.2 Derive and apply basic trigonometric identities (e.g., $\sin^2\theta + \cos^2\theta = 1$, $\tan^2\theta + 1 = \sec^2\theta$) and the laws of sines and cosines.</p>	
Unit/Topic/Lesson UNIT NINE TRIGONOMETRIC IDENTITIES		Unit/Topic/Lesson UNIT NINE TRIGONOMETRIC IDENTITIES	
<ol style="list-style-type: none"> Identities and Proof Basic Trigonometric Identities Strategies for Proving Trigonometric Identities 		<ol style="list-style-type: none"> Addition and Subtraction Identities for Sine and Cosine Functions Addition and Subtraction Identities for the Tangent Function Cofunction Identities 	
Mission and Expectations		Mission and Expectations	
<ol style="list-style-type: none"> Critical Thinking Skills Problem Solving Skills Test Taking Skills 		<ol style="list-style-type: none"> Critical Thinking Skills Problem Solving Skills Test Taking Skills 	
Objectives	Essential Question	Objectives	Essential Question
<ol style="list-style-type: none"> To identify possible identities by using graphs. To apply strategies to prove identities. 	<p>How is proving or verifying an trigonometric identity different then solving a trigonometric equation?</p>	<ol style="list-style-type: none"> To use addition and subtraction identities for sine, cosine, and tangent functions. To use the cofunction identities. 	<p>What is the difference between the reciprocal and confunctional relationships for trigonometric functions?</p>
Teacher Resources <i>Holt Precalculus ©2006</i>	Media Resources <i>Holt Precalculus ©2006</i>	Teacher Resources <i>Holt Precalculus ©2006</i>	Media Resources <i>Holt Precalculus ©2006</i>
<ol style="list-style-type: none"> Chapter Nine lessons Chapter Nine Practice Worksheets Teacher-Made Assessments Graphing Calculator Manual Solution Key for all sections 	<ol style="list-style-type: none"> Teacher generated PowerPoint Presentations Student CD-ROMs Test ExamPro Generator One-Stop CD Planner 	<ol style="list-style-type: none"> Chapter Nine lessons Chapter Nine Practice Worksheets Teacher-Made Assessments Graphing Calculator Manual Solution Key for all sections 	<ol style="list-style-type: none"> Teacher generated PowerPoint Presentations Student CD-ROMs Test ExamPro Generator One-Stop CD Planner
Evaluation/Activities	Completion date:	Evaluation/Activities	Completion date:
<p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completed by:</p> <p>Comments:</p>	<p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completed by:</p> <p>Comments:</p>

Week 29		Week 30	
Performance Standards		Performance Standards	
<p><i>The students will:</i> 12.P.4 Demonstrate an understanding of the trigonometric, exponential, and logarithmic functions. 12.G.1 Define the sine, cosine, and tangent of an acute angle. Apply to the solution of problems. 12.G.2 Derive and apply basic trigonometric identities (e.g., $\sin^2\theta + \cos^2\theta = 1$, $\tan^2\theta + 1 = \sec^2\theta$) and the laws of sines and cosines.</p>		<p><i>The students will:</i> 12.P.4 Demonstrate an understanding of the trigonometric, exponential, and logarithmic functions. 12.G.1 Define the sine, cosine, and tangent of an acute angle. Apply to the solution of problems. 12.G.2 Derive and apply basic trigonometric identities (e.g., $\sin^2\theta + \cos^2\theta = 1$, $\tan^2\theta + 1 = \sec^2\theta$) and the laws of sines and cosines.</p>	
Unit/Topic/Lesson UNIT NINE TRIGONOMETRIC IDENTITIES		Unit/Topic/Lesson UNIT NINE TRIGONOMETRIC IDENTITIES	
<ol style="list-style-type: none"> 1. Double-Angle Identities 2. Forms of $\cos 2x$ 3. Power Reducing Identities 4. Half-Angle Identities 		<ol style="list-style-type: none"> 1. Product-to-Sum Identities 2. Sum-to-Product Identities 3. Using Trigonometric Identities 	
Mission and Expectations		Mission and Expectations	
<ol style="list-style-type: none"> 1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills 		<ol style="list-style-type: none"> 1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills 	
Objectives	Essential Question	Objectives	Essential Question
<ol style="list-style-type: none"> 1. To use double angle identities. 2. To use power reducing identities. 3. To use half angle identities. 	<p>How can the double-angle identity for sine be used to calculate a distance?</p>	<ol style="list-style-type: none"> 1. To use product-to-sum identities. 2. To use sum-to-product identities. 3. To use the appropriate identity rule to solve trigonometric identities. 	<p>Why is it necessary to use trigonometric identities?</p>
Teacher Resources	Media Resources	Teacher Resources	Media Resources
<p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> 1. Chapter Nine lessons 2. Chapter Nine Practice Worksheets 3. Teacher-Made Assessments 4. Graphing Calculator Manual 5. Solution Key for all sections 	<p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> 1. Teacher generated PowerPoint Presentations 2. Student CD-ROMs 3. Test ExamPro Generator 4. One-Stop CD Planner 	<p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> 1. Chapter Nine lessons 2. Chapter Nine Practice Worksheets 3. Teacher-Made Assessments 4. Graphing Calculator Manual 5. Solution Key for all sections 	<p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> 1. Teacher generated PowerPoint Presentations 2. Student CD-ROMs 3. Test ExamPro Generator 4. One-Stop CD Planner
Evaluation/Activities	Completion date:	Evaluation/Activities	Completion date:
<p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum.</p>	Completed by:	<p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum. Test: On concepts involving Trigonometric Identities.</p>	Comments:

Week 31		Week 32	
Performance Standards		Performance Standards	
<p><i>The students will:</i> 12.P.11 Solve everyday problems that can be modeled using polynomial, rational, exponential, logarithmic, trigonometric, and step functions, absolute values, and square roots. Apply appropriate graphical, tabular, or symbolic methods to the solution. Include growth and decay; joint (e.g., $I = Prt$, $y = k(w_1 + w_2)$) and combined ($F = G(m_1m_2)/d^2$) variation, and periodic processes.</p>		<p><i>The students will:</i> 12.P.11 Solve everyday problems that can be modeled using polynomial, rational, exponential, logarithmic, trigonometric, and step functions, absolute values, and square roots. Apply appropriate graphical, tabular, or symbolic methods to the solution. Include growth and decay; joint (e.g., $I = Prt$, $y = k(w_1 + w_2)$) and combined ($F = G(m_1m_2)/d^2$) variation, and periodic processes.</p>	
Unit/Topic/Lesson UNIT TEN TRIGONOMETRIC APPLICATIONS		Unit/Topic/Lesson UNIT TEN TRIGONOMETRIC APPLICATIONS	
<ol style="list-style-type: none"> The Law of Cosines Solving of Triangle Using the Law of Cosines Applications Using the Law of Cosines 		<ol style="list-style-type: none"> The Law of Sines Supplementary Angle Identity Area of a Triangle Using the Law of Sines Heron's Formula 	
Mission and Expectations		Mission and Expectations	
<ol style="list-style-type: none"> Critical Thinking Skills Problem Solving Skills Test Taking Skills 		<ol style="list-style-type: none"> Critical Thinking Skills Problem Solving Skills Test Taking Skills 	
Objectives	Essential Question	Objectives	Essential Question
<ol style="list-style-type: none"> To solve oblique triangles using the Law of Cosines. To solve real world problems using the Law of Cosines. 	<p>How do you use the Law of Cosines to solve any triangle, not just right triangles?</p>	<ol style="list-style-type: none"> To solve oblique triangles using the Law of Sines. To solve real world problems using the Law of Sines. To use area formulas to find area of triangles. 	<p>When is it necessary to use the Law of Sines to solve a triangle?</p>
Teacher Resources <i>Holt Precalculus ©2006</i>	Media Resources <i>Holt Precalculus ©2006</i>	Teacher Resources <i>Holt Precalculus ©2006</i>	Media Resources <i>Holt Precalculus ©2006</i>
<ol style="list-style-type: none"> Chapter Ten lessons Chapter Ten Practice Worksheets Teacher-Made Assessments Graphing Calculator Manual Solution Key for all sections 	<ol style="list-style-type: none"> Teacher generated PowerPoint Presentations Student CD-ROMs Test ExamPro Generator One-Stop CD Planner 	<ol style="list-style-type: none"> Chapter Ten lessons Chapter Ten Practice Worksheets Teacher-Made Assessments Graphing Calculator Manual Solution Key for all sections 	<ol style="list-style-type: none"> Teacher generated PowerPoint Presentations Student CD-ROMs Test ExamPro Generator One-Stop CD Planner
Evaluation/Activities		Evaluation/Activities	
<p>Homework: To be given daily on each introduced topic</p> <p>Review: All weekly concepts.</p> <p>Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>	<p>Homework: To be given daily on each introduced topic</p> <p>Review: All weekly concepts.</p> <p>Quiz: Assessments given as warranted by the curriculum.</p> <p>Test: On concepts involving Trigonometric Applications.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>

Week 33		Week 34	
Performance Standards		Performance Standards	
<p><i>The students will:</i> 12.G.4 Relate geometric and algebraic representations of lines, simple curves, and conic sections.</p>		<p><i>The students will:</i> 12.G.4 Relate geometric and algebraic representations of lines, simple curves, and conic sections.</p>	
Unit/Topic/Lesson UNIT ELEVEN CONIC SECTIONS		Unit/Topic/Lesson UNIT ELEVEN CONIC SECTIONS	
<ol style="list-style-type: none"> 1. Ellipses 2. Hyperbolas 3. Parabolas 4. Circles 		<ol style="list-style-type: none"> 1. Horizontal and Vertical Shifts 2. Standard Equations of Conic Sections 3. Graphs of Second-Degree Equations 	
Mission and Expectations		Mission and Expectations	
<ol style="list-style-type: none"> 1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills 		<ol style="list-style-type: none"> 1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills 	
Objectives	Essential Question	Objectives	Essential Question
<ol style="list-style-type: none"> 1. To define an ellipse, a hyperbola, a parabola, and a circle. 2. To write the equations of ellipses, hyperbolas, parabolas, and circles. 3. To identify the characteristics of each conic section. 4. To graph each conic section. 	<p>How do you identify a given conic section by looking at the equation and not at the graph?</p>	<ol style="list-style-type: none"> 1. To write a conic section in standard form. 2. To write the equation of a translated conic. 3. To graph a translated conic. 4. To determine the shape of a translated conic without graphing. 5. To apply conic to real-world problems. 	<p>How can a conic section be graphed by looking at the equation in standard form?</p>
Teacher Resources	Media Resources	Teacher Resources	Media Resources
<p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> 1. Chapter Eleven lessons 2. Chapter Eleven Practice Worksheets 3. Teacher-Made Assessments 4. Graphing Calculator Manual 5. Solution Key for all sections 	<p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> 1. Teacher generated PowerPoint Presentations 2. Student CD-ROMs 3. Test ExamPro Generator 4. One-Stop CD Planner 	<p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> 1. Chapter Eleven lessons 2. Chapter Eleven Practice Worksheets 3. Teacher-Made Assessments 4. Graphing Calculator Manual 5. Solution Key for all sections 	<p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> 1. Teacher generated PowerPoint Presentations 2. Student CD-ROMs 3. Test ExamPro Generator 4. One-Stop CD Planner
Evaluation/Activities		Evaluation/Activities	
<p>Homework: To be given daily on each introduced topic</p> <p>Review: All weekly concepts.</p> <p>Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>	<p>Homework: To be given daily on each introduced topic</p> <p>Review: All weekly concepts.</p> <p>Quiz: Assessments given as warranted by the curriculum.</p> <p>Test: On concepts involving Conic Sections.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>

Week 35		Week 36	
Performance Standards		Performance Standards	
<p><i>The students will:</i> 12.P.9 Use matrices to solve systems of linear equations. Apply to the solution of everyday problems.</p>		<p><i>The students will:</i> 12.P.10 Use symbolic, numeric, and graphical methods to solve systems of equations and/or inequalities involving algebraic, exponential, and logarithmic expressions. Also use technology where appropriate. Describe the relationships among the methods.</p>	
Unit/Topic/Lesson UNIT TWELVE SYSTEMS OF EQUATIONS		Unit/Topic/Lesson UNIT TWELVE SYSTEMS OF EQUATIONS	
<ol style="list-style-type: none"> 1. Solving a System of Equations Using Matrices 2. Type of System and Number of Solutions 3. Consistent and Inconsistent Systems 		<ol style="list-style-type: none"> 1. Solving Nonlinear Systems Algebraically 2. Solving Nonlinear Systems Graphically 	
Mission and Expectations		Mission and Expectations	
<ol style="list-style-type: none"> 1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills 		<ol style="list-style-type: none"> 1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills 	
Objectives	Essential Question	Objectives	Essential Question
<ol style="list-style-type: none"> 1. To solve a system of equations using matrices. 2. To recognize whether systems are consistent or inconsistent. 3. To determine the number of solutions for any given system. 	<p>How are you able to determine whether a system of equations is consistent or inconsistent?</p>	<ol style="list-style-type: none"> 1. To solve a nonlinear system algebraically using a variety of methods. 2. To solve a nonlinear system graphically. 	<p>How do you solve a nonlinear system graphically?</p>
Teacher Resources	Media Resources	Teacher Resources	Media Resources
<p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> 1. Chapter Twelve lessons 2. Chapter Twelve Practice Worksheets 3. Teacher-Made Assessments 4. Graphing Calculator Manual 5. Solution Key for all sections 	<p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> 1. Teacher generated PowerPoint Presentations 2. Student CD-ROMs 3. Test ExamPro Generator 4. One-Stop CD Planner 	<p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> 1. Chapter Twelve lessons 2. Chapter Twelve Practice Worksheets 3. Teacher-Made Assessments 4. Graphing Calculator Manual 5. Solution Key for all sections 	<p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> 1. Teacher generated PowerPoint Presentations 2. Student CD-ROMs 3. Test ExamPro Generator 4. One-Stop CD Planner
Evaluation/Activities		Evaluation/Activities	
<p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date: Completed by: Comments:</p>	<p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum. Test: On concepts involving Systems of Equations.</p>	<p>Completion date: Completed by: Comments:</p>

