

**Curriculum Map
Precalculus H (343)
Saugus High School
Saugus Public Schools
2009-2010**

Week 1		Week 2	
<p align="center">Performance Standards</p> <p><i>The students will:</i> 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. 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. 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.1 Describe, complete, extend, analyze, generalize, and create a wide variety of patterns, including iterative and recursive patterns such as Pascal's Triangle. 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.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">Unit/Topic/Lesson UNIT ONE NUMBER PATTERNS, EQUATIONS AND INEQUALITIES</p> <ol style="list-style-type: none"> Number Patterns Equations Inequalities Review of all Summer Assignment Concepts 		<p align="center">Unit/Topic/Lesson UNIT TWO FUNCTIONS AND THEIR GRAPHS</p> <ol style="list-style-type: none"> Functions and Functional Notation Graphs of Functions Quadratic Functions 	
<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 number patterns, sequences, and equations. To solve linear and quadratic equations. To solve basic and compound inequalities. 	<p align="center">Essential Question</p> <p>What is the connection between linear function and arithmetic sequences?</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">Teacher Resources <i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> Chapter One/Two lessons Chapter One/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 Three lessons Chapter Three 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. Test: On the concepts involving Number Patterns, Equations, and Inequalities.</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 3		Week 4	
<p align="center">Performance Standards</p> <p><i>The students will:</i> 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. 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. 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.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 align="center">Unit/Topic/Lesson UNIT TWO FUNCTIONS AND THEIR GRAPHS</p> <ol style="list-style-type: none"> Graph and Transformations of Functions Parent Functions Vertical and Horizontal Shifts and Stretches and Compressions Operations with Functions Composite Functions 		<p align="center">Unit/Topic/Lesson UNIT TWO FUNCTIONS AND THEIR GRAPHS</p> <ol style="list-style-type: none"> Inverse Functions One-to-One Functions Rates of Changes 	
<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 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">Objectives</p> <ol style="list-style-type: none"> To define inverse relations and functions. To find inverse relations from tables, graphs, and equations. To determine whether an inverse relation is a function. To find the average rate of change of a function over an interval. To work with and solve various problems involving the average rate of change. 	<p align="center">Essential Question</p> <p>What is the algebraic process that is used to find the inverse of a function?</p>
<p align="center">Teacher Resources <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 <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 Three lessons Chapter Three 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 concepts involving Functions and Their Graphs.</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> 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.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. 12.P.7 Find solutions to quadratic equations (with real coefficients and real or complex roots) and apply to the solutions of problems. 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 THREE POLYNOMIAL AND RATIONAL FUNCTIONS</p> <ol style="list-style-type: none"> Polynomial Functions The Division Algorithm Remainder and Factor Theorems The Rational Zero Test and Finding Real Zeros Graphs of Polynomial Functions 		<p align="center">Unit/Topic/Lesson UNIT THREE POLYNOMIAL AND RATIONAL FUNCTIONS</p> <ol style="list-style-type: none"> Rational Functions Vertical Asymptotes and Holes Graphing Rational Functions Complex Numbers The Fundamental Theorem of Algebra 	
<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 define and divide polynomials. To apply the Remainder and Factor Theorems and make connections between remainders and factors. To determine the maximum number of zeros of a polynomial. To find all rational zeros of a polynomial function. To factor a polynomial completely. To recognize and describe the graphs of various polynomial functions. To identify the properties of general polynomial functions. 	<p align="center">Essential Question</p> <p>What is the procedure that is used to find real zeros of a polynomial function?</p>	<p align="center">Objectives</p> <ol style="list-style-type: none"> To find the domain of a rational function. To find intercepts, asymptotes, and holes. To describe the end behavior of a function. To write and perform arithmetic operations on complex numbers. To find the conjugate of a complex number. To simplify square roots of negative numbers. To use the Fundamental Theorem of Algebra. To find the number of zeros of a polynomial. To give the complete factorization of polynomial expressions. 	<p align="center">Essential Question</p> <p>Why does every nonconstant polynomial have a zero in the complex number system?</p>
<p align="center">Teacher Resources <i>Holt Precalculus</i> ©2006</p> <ol style="list-style-type: none"> Chapter Four lessons Chapter Four Practice Worksheets Teacher-Made Assessments Graphing Calculator Manual Solution Key for all sections 	<p align="center">Media Resources <i>Holt Precalculus</i> ©2006</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</i> ©2006</p> <ol style="list-style-type: none"> Chapter Four lessons Chapter Four Practice Worksheets Teacher-Made Assessments Graphing Calculator Manual Solution Key for all sections 	<p align="center">Media Resources <i>Holt Precalculus</i> ©2006</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 concepts involving Polynomial and Rational Functions.</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.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. 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><i>The students will:</i> 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>	
Unit/Topic/Lesson UNIT FOUR EXPONENTIAL AND LOGARITHMIC FUNCTIONS		Unit/Topic/Lesson UNIT FOUR EXPONENTIAL AND LOGARITHMIC FUNCTIONS	
<ol style="list-style-type: none"> 1. Radicals and Rational Exponents 2. Laws of Exponents 3. Exponential Functions 4. Applications of Exponential Functions 		<ol style="list-style-type: none"> 1. Common Logarithmic Functions 2. Natural Logarithmic Functions 3. Properties of Logarithms 4. Laws of Logarithms 	
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 	
<p style="text-align: center;">Objectives</p> <ol style="list-style-type: none"> 1. To simplify expressions containing radicals or rational exponents. 2. To graph and identify transformations of exponential functions. 3. To solve application problems involving exponential functions. 4. To solve application problems involving exponential functions. 	<p style="text-align: center;">Essential Question</p> <p style="text-align: center;">How do you convert between radical and exponential notation?</p>	<p style="text-align: center;">Objectives</p> <ol style="list-style-type: none"> 1. To evaluate common and natural logarithms. 2. To solve problems involving common and natural exponential and logarithmic equations. 3. To graph transformations of common and natural logarithmic functions. 4. To use the properties and laws of logarithms to simplify and evaluate expressions. 	<p style="text-align: center;">Essential Question</p> <p style="text-align: center;">What is the mathematical relationship between logarithmic and exponential functions?</p>
<p style="text-align: center;">Teacher Resources <i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> 1. Chapter Five lessons 2. Chapter Five Practice Worksheets 3. Teacher-Made Assessments 4. Graphing Calculator Manual 5. Solution Key for all sections 	<p style="text-align: center;">Media Resources <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 style="text-align: center;">Teacher Resources <i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> 1. Chapter Five lessons 2. Chapter Five Practice Worksheets 3. Teacher-Made Assessments 4. Graphing Calculator Manual 5. Solution Key for all sections 	<p style="text-align: center;">Media Resources <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 style="text-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 style="text-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 9		Week 10	
<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.</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">Performance Standards</p> <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.</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 align="center">Unit/Topic/Lesson UNIT FOUR EXPONENTIAL AND LOGARITHMIC FUNCTIONS</p> <ol style="list-style-type: none"> Solving Exponential Equations Solving Logarithmic Equations Modeling with Exponential and Logarithmic Functions 		<p align="center">Unit/Topic/Lesson UNIT FIVE TRIGONOMETRY</p> <ol style="list-style-type: none"> Right Triangle Trigonometry Trigonometric Ratios Conversion Between Decimal and DMS Form Special Angles Solving Right Triangles Right Triangle Real World Situations Indirect Measurement 	
<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 exponential equations. To solve logarithmic equations. To solve a variety of application problems by using exponential and logarithmic equations. 	<p align="center">Essential Question</p> <p>How are exponential and logarithmic models used along with polynomial models to solve real world situations?</p>	<p align="center">Objectives</p> <ol style="list-style-type: none"> To define the six trigonometric ratios of an acute angle in terms of a right triangle. To evaluate trigonometric ratios using triangles and/or calculators. To solve triangles using trigonometric ratios. To solve applications using triangles. 	<p align="center">Essential Question</p> <p>How is right triangle trigonometry used to solve right triangles?</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 Six lessons Chapter Six 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</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>	<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 11		Week 12	
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 FIVE TRIGONOMETRY		Unit/Topic/Lesson UNIT FIVE TRIGONOMETRY	
<ol style="list-style-type: none"> 1. Extending Angle Measure and Conterminal Angles 2. Radian Angle Measure and Conversion Between Degrees and Radians 3. Arc Length 4. Trigonometric Functions and Trigonometric Ratios in the Coordinate Plane 5. Unit Circle and Reference Angles 6. 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 use a rotating ray to extend the definition of angle measure to negative angles and angles greater than 180 degrees. 2. To define radian measure and convert angle measures between degrees and radians. 3. To define the trigonometric ratios in the coordinate plane. 4. 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	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>Test: On concepts involving Trigonometry.</p>	<p>Completed by:</p> <p>Comments:</p>

Week 13		Week 14	
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.</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.</p>	
Unit/Topic/Lesson UNIT SIX TRIGONOMETRIC GRAPHS		Unit/Topic/Lesson UNIT SIX 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	Media Resources	Teacher Resources	Media Resources
<p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> Chapter Seven lessons Chapter Seven Practice Worksheets Teacher-Made Assessments Graphing Calculator Manual Solution Key for all sections 	<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><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> Chapter Seven lessons Chapter Seven Practice Worksheets Teacher-Made Assessments Graphing Calculator Manual Solution Key for all sections 	<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
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 15		Week 16	
<p align="center">Performance Standards</p> <p><i>The students will:</i> 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> 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 align="center">Unit/Topic/Lesson UNIT SIX TRIGONOMETRIC GRAPHS</p> <p>1. Periodic Graphs 2. Amplitude 3. Amplitude and Period</p>		<p align="center">Unit/Topic/Lesson UNIT SIX TRIGONOMETRIC GRAPHS</p> <p>1. Vertical Shifts 2. Phase Shifts 3. Combined Transformations 4. Graphs and Identities</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">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> <p>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>	<p align="center">Essential Question</p> <p>How do you determine the period and amplitude of a trigonometric function without looking at the graph of the function?</p>	<p align="center">Objectives</p> <p>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>	<p align="center">Essential Question</p> <p>How do you use graphs of trigonometric functions to determine trigonometric identities?</p>
<p align="center">Teacher Resources <i>Holt Precalculus ©2006</i></p> <p>1. Chapter Seven lessons 2. Chapter Seven Practice Worksheets 3. Teacher-Made Assessments 4. Graphing Calculator Manual 5. Solution Key for all sections</p>	<p align="center">Media Resources <i>Holt Precalculus ©2006</i></p> <p>1. Teacher generated PowerPoint Presentations 2. Student CD-ROMs 3. Test ExamPro Generator 4. One-Stop CD Planner</p>	<p align="center">Teacher Resources <i>Holt Precalculus ©2006</i></p> <p>1. Chapter Seven lessons 2. Chapter Seven Practice Worksheets 3. Teacher-Made Assessments 4. Graphing Calculator Manual 5. Solution Key for all sections</p>	<p align="center">Media Resources <i>Holt Precalculus ©2006</i></p> <p>1. Teacher generated PowerPoint Presentations 2. Student CD-ROMs 3. Test ExamPro Generator 4. One-Stop CD Planner</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>	<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 concepts involving Trigonometric Graphs.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>

Week 17		Week 18	
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. 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 SEVEN SOLVING TRIGONOMETRIC EQUATIONS		Unit/Topic/Lesson UNIT SEVEN SOLVING TRIGONOMETRIC EQUATIONS	
<ol style="list-style-type: none"> Basic Trigonometric Equations Solving Trigonometric Equations Graphically Trigonometric Equations in Degree Measure 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 Simple Harmonic Motion 	
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 trigonometric equations graphically. To state the complete solution to a trigonometric equation. To define the domain and range of inverse trigonometric functions. To use inverse trigonometric function notation. 	<p>What is the difference between sine function and the restricted sine function and why is it important when working with the inverse sine function?</p>	<ol style="list-style-type: none"> To solve trigonometric equations algebraically. To work with a variety of techniques to solve trigonometric equations. 	
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 Eight lessons Chapter Eight 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 Eight lessons Chapter Eight 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 19		Week 20	
<p align="center">Performance Standards</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.</p>		<p align="center">Performance Standards</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>	
<p align="center">Unit/Topic/Lesson UNIT SEVEN SOLVING TRIGONOMETRIC EQUATIONS</p> <p>1. Modeling Trigonometric Data 2. Sound Waves</p>		<p align="center">Unit/Topic/Lesson UNIT EIGHT TRIGONOMETRIC IDENTITIES</p> <p>1. Identities and Proof 2. Basic Trigonometric Identities 3. Strategies for Proving Trigonometric Identities</p>	
<p align="center">Mission and Expectations</p> <p>1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills</p>		<p align="center">Mission and Expectations</p> <p>1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills</p>	
<p align="center">Objectives</p> <p>1. To write a sinusoidal function whose graph resembles a given graph. 2. To write a sinusoidal function to represent a given simple harmonic motion and use the function to solve problems. 3. To find a sinusoidal model for a set of data, and use the model to make predictions.</p>	<p align="center">Essential Question</p> <p>How are sound waves modeled using trigonometric functions?</p>	<p align="center">Objectives</p> <p>1. To identify possible identities by using graphs. 2. To apply strategies to prove identities.</p>	<p align="center">Essential Question</p> <p>How is proving or verifying an trigonometric identity different then solving a trigonometric equation?</p>
<p align="center">Teacher Resources <i>Holt Precalculus ©2006</i></p> <p>1. Chapter Eight lessons 2. Chapter Eight Practice Worksheets 3. Teacher-Made Assessments 4. Graphing Calculator Manual 5. Solution Key for all sections</p>	<p align="center">Media Resources <i>Holt Precalculus ©2006</i></p> <p>1. Teacher generated PowerPoint Presentations 2. Student CD-ROMs 3. Test ExamPro Generator 4. One-Stop CD Planner</p>	<p align="center">Teacher Resources <i>Holt Precalculus ©2006</i></p> <p>1. Chapter Nine lessons 2. Chapter Nine Practice Worksheets 3. Teacher-Made Assessments 4. Graphing Calculator Manual 5. Solution Key for all sections</p>	<p align="center">Media Resources <i>Holt Precalculus ©2006</i></p> <p>1. Teacher generated PowerPoint Presentations 2. Student CD-ROMs 3. Test ExamPro Generator 4. One-Stop CD Planner</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 concepts involving Solving Trigonometric Equations.</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 21		Week 22	
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 EIGHT TRIGONOMETRIC IDENTITIES		Unit/Topic/Lesson UNIT EIGHT 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 		<ol style="list-style-type: none"> Double-Angle Identities Forms of $\cos 2x$ Power Reducing Identities Half-Angle 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 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>	<ol style="list-style-type: none"> To use double angle identities. To use power reducing identities. To use half angle identities. 	<p>How can the double-angle identity for sine be used to calculate a distance?</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		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 23		Week 24	
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. 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>The students will: 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 EIGHT TRIGONOMETRIC IDENTITIES		Unit/Topic/Lesson UNIT NINE TRIGONOMETRIC APPLICATIONS	
<ol style="list-style-type: none"> 1. Product-to-Sum Identities 2. Sum-to-Product Identities 3. Using Trigonometric Identities 		<ol style="list-style-type: none"> 1. The Law of Cosines 2. Solving of Triangle Using the Law of Cosines 3. Applications Using the Law of Cosines 4. The Law of Sines 5. Supplementary Angle Identity 6. Area of a Triangle Using the Law of Sines 7. Heron's Formula 	
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 product-to-sum identities. 2. To use sum-to-product identities. 3. To use the appropriate identity rule to solve trigonometric identities. 	Why is it necessary to use trigonometric identities?	<ol style="list-style-type: none"> 1. To solve oblique triangles using the Law of Cosines. 2. To solve real world problems using the Law of Cosines. 3. To solve oblique triangles using the Law of Sines. 4. To solve real world problems using the Law of Sines. 5. To use area formulas to find area of triangles. 	When is it necessary to use the Law of Sines to solve a triangle?
Teacher Resources	Media Resources	Teacher Resources	Media Resources
<i>Holt Precalculus ©2006</i> <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 	<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 	<i>Holt Precalculus ©2006</i> <ol style="list-style-type: none"> 1. Chapter Ten lessons 2. Chapter Ten Practice Worksheets 3. Teacher-Made Assessments 4. Graphing Calculator Manual 5. Solution Key for all sections 	<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	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. Test: On concepts involving Trigonometric Identities.	Completed by:	Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum.	Completed by:
	Comments:		Comments:

Week 25		Week 26	
Performance Standards		Performance Standards	
<p><i>The students will:</i></p> <p>PC.N.1 Plot complex numbers using both rectangular and polar coordinates systems. Represent complex numbers using polar coordinates, i.e., $a + bi = r(\cos\theta + i\sin\theta)$. Apply DeMoivre's theorem to multiply, take roots, and raise complex numbers to a power.</p>		<p><i>The students will:</i></p> <p>12.G.3 Use the notion of vectors to solve problems. Describe addition of vectors and multiplication of a vector by a scalar, both symbolically and geometrically. Use vector methods to obtain geometric results.</p>	
Unit/Topic/Lesson UNIT NINE TRIGONOMETRIC APPLICATIONS		Unit/Topic/Lesson UNIT NINE TRIGONOMETRIC APPLICATIONS	
<ol style="list-style-type: none"> 1. The Complex Plane 2. Polar Form for Complex Numbers 3. Demoivre's Theorem 4. Formulas and Rules for nth Roots of Complex Numbers 		<ol style="list-style-type: none"> 1. Vectors in the Plane 2. Properties of Vectors 3. Applications of Vectors in the Plane 	
Mission and Expectations		Mission and Expectations	
<i>1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills</i>		<i>1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills</i>	
Objectives	Essential Question	Objectives	Essential Question
<ol style="list-style-type: none"> 1. To graph a complex number in the complex plane. 2. To find the absolute value of a complex number. 3. To express a complex number in polar form. 4. To perform polar multiplication and division. 5. To calculate powers and roots of complex numbers. 6. To find and graph roots of unity. 	<p>How is a complex number convert to polar form?</p>	<ol style="list-style-type: none"> 1. To find the components and magnitude of a vector. 2. To perform scalar multiplication of vectors, vector addition, and vector subtraction. 3. To perform operations with linear combinations of vectors. 4. To determine the direction angle of a vector. 5. To determine resultant forces in physical applications. 	<p>What is the difference between vectors and rays?</p>
Teacher Resources	Media Resources	Teacher Resources	Media Resources
<i>Holt Precalculus ©2006</i> <ol style="list-style-type: none"> 1. Chapter Ten lessons 2. Chapter Ten Practice Worksheets 3. Teacher-Made Assessments 4. Graphing Calculator Manual 5. Solution Key for all sections 	<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 	<i>Holt Precalculus ©2006</i> <ol style="list-style-type: none"> 1. Chapter Ten lessons 2. Chapter Ten Practice Worksheets 3. Teacher-Made Assessments 4. Graphing Calculator Manual 5. Solution Key for all sections 	<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		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 27		Week 28	
<p align="center">Performance Standards</p> <p><i>The students will:</i> 12.G.3 Use the notion of vectors to solve problems. Describe addition of vectors and multiplication of a vector by a scalar, both symbolically and geometrically. Use vector methods to obtain geometric results.</p>		<p align="center">Performance Standards</p> <p><i>The students will:</i> 12.G.4 Relate geometric and algebraic representations of lines, simple curves, and conic sections. PC.P.8 Identify and discuss features of conic sections: axes, foci, asymptotes, and tangents. Convert between different algebraic representations of conic sections.</p>	
<p align="center">Unit/Topic/Lesson UNIT NINE TRIGONOMETRIC APPLICATIONS</p> <ol style="list-style-type: none"> The Dot Product Properties of the Dot Product Parallel Vectors Angle Theorem Schwarz Inequality Orthogonal Vectors 		<p align="center">Unit/Topic/Lesson UNIT TEN ANALYTIC GEOMETRY</p> <ol style="list-style-type: none"> Standard Equation of an Ellipse Centered at the Origin Characteristics of Ellipses Standard Equation of an Hyperbola Centered at the Origin Characteristics of Hyperbolas 	
<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 find the dot product of two vectors and the angle between two vectors. To determine projection and component vectors and use them in physical applications. 	<p align="center">Essential Question</p> <p>How do you find the dot product of two vectors?</p>	<p align="center">Objectives</p> <ol style="list-style-type: none"> To define and write the equation of an ellipse. To identify important characteristics and graph ellipses. To define and write the equation of a hyperbola. To identify important characteristics and graph hyperbolas. 	<p align="center">Essential Question</p> <p>How does the concept of distance relate to the concepts of ellipses and hyperbolas?</p>
<p align="center">Teacher Resources <i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> Chapter Ten lessons Chapter Ten 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 Eleven lessons Chapter Eleven 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. Test: On concepts involving Trigonometric Applications.</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 29		Week 30	
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. PC.P.8 Identify and discuss features of conic sections: axes, foci, asymptotes, and tangents. Convert between different algebraic representations of conic sections.</p>		<p><i>The students will:</i> 12.G.4 Relate geometric and algebraic representations of lines, simple curves, and conic sections. PC.P.8 Identify and discuss features of conic sections: axes, foci, asymptotes, and tangents. Convert between different algebraic representations of conic sections.</p>	
Unit/Topic/Lesson UNIT TEN ANALYTIC GEOMETRY		Unit/Topic/Lesson UNIT TEN ANALYTIC GEOMETRY	
<ol style="list-style-type: none"> Standard Equation of an Parabola with Vertex at the Origin Characteristics of Parabolas Horizontal and Vertical Shifts Standard Equations of Conic Sections Graphs of Second-Degree Equations 		<ol style="list-style-type: none"> Rotation of Axes The Rotation Equations Rotation Angle 	
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 and write the equation of a parabola. To identify important characteristics and graph parabolas. To graph and write the equation of a translated conic. To determine the shape of a translated conic without graphing. 	<p>How do you determine the shape of a translated conic section without graphing?</p>	<ol style="list-style-type: none"> To write the equation of a rotated conic section in terms of u and v. To determine the angle of rotation of a rotated conic section. 	<p>How do you choose a rotation angle to eliminate the xy term?</p>
Teacher Resources	Media Resources	Teacher Resources	Media Resources
<p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> Chapter Eleven lessons Chapter Eleven Practice Worksheets Teacher-Made Assessments Graphing Calculator Manual Solution Key for all sections 	<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><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> Chapter Eleven lessons Chapter Eleven Practice Worksheets Teacher-Made Assessments Graphing Calculator Manual Solution Key for all sections 	<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
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 31		Week 32	

<i>Performance Standards</i>		<i>Performance Standards</i>	
<p>The students will: PC.N.1 Plot complex numbers using both rectangular and polar coordinates systems. Represent complex numbers using polar coordinates, i.e., $a + bi = r(\cos\theta + i\sin\theta)$. Apply DeMoivre's theorem to multiply, take roots, and raise complex numbers to a power.</p>		<p>The students will: PC.N.1 Plot complex numbers using both rectangular and polar coordinates systems. Represent complex numbers using polar coordinates, i.e., $a + bi = r(\cos\theta + i\sin\theta)$. Apply DeMoivre's theorem to multiply, take roots, and raise complex numbers to a power.</p>	
Unit/Topic/Lesson UNIT TEN ANALYTIC GEOMETRY		Unit/Topic/Lesson UNIT TEN ANALYTIC GEOMETRY	
<ol style="list-style-type: none"> 1. The Polar Coordinate System 2. Coordinate Conversion Formulas 3. Polar Graphs 4. Polar Equations of Conics 		<ol style="list-style-type: none"> 1. Plane Curves and Parametric Equations 2. Projectile Motion 3. Parameterization of Conic Sections 	
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 locate points in a polar coordinate system. 2. To convert between coordinates in rectangular and polar systems. 3. To create graphs of equations in polar coordinates. 4. To recognize the equations of a cardioids, rose, circle, lemniscate, and limacon. 5. To define eccentricity of an ellipse, parabola, and a hyperbola. 6. To develop and use the general polar equation of a conic section. 	<p>What is the process to convert between coordinates in rectangular and polar systems?</p>	<ol style="list-style-type: none"> 1. To define plane curves and parameterizations. 2. To find parametric equations for projectile motions and cycloids. 	<p>How is the procedure of parameterization of conic sections used to solve real world problems?</p>
Teacher Resources	Media Resources	Teacher Resources	Media Resources
<p><i>Holt Precalculus</i> ©2006</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</i> ©2006</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</i> ©2006</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</i> ©2006</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>	<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. Test: On concepts involving Analytic Geometry.</p>	<p>Completed by:</p> <p>Comments:</p>

Week 33		Week 34	
Performance Standards		Performance Standards	
<p><i>The students will:</i></p> <p>12.P.9 Use matrices to solve systems of linear equations. Apply to the solution of everyday problems.</p> <p>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>		<p><i>The students will:</i></p> <p>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 ELEVEN SYSTEMS OF EQUATIONS		Unit/Topic/Lesson UNIT ELEVEN SYSTEMS OF EQUATIONS	
<ol style="list-style-type: none"> Solving a System of Equations Using Matrices Type of System and Number of Solutions Consistent and inconsistent Systems Solving Nonlinear Systems Algebraically Solving Nonlinear Systems Graphically 		<ol style="list-style-type: none"> Systems of Inequalities Test-Point Method for Solving Inequalities in Two Variables Solving Linear Inequalities in Two Variables Fundamental Theorem of Linear Programming 	
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 systems of equations by graphing, substitution, and elimination. To recognize consistent and inconsistent systems. To solve applications using systems. To solve nonlinear systems algebraically and graphically. 	<p>How do you solve a nonlinear system graphically?</p>	<ol style="list-style-type: none"> To solve inequalities in two variables. To solve systems of inequalities by graphing. To solve linear programming problems. 	<p>How is the process for solving linear inequalities used to solve linear programming problems?</p>
Teacher Resources	Media Resources	Teacher Resources	Media Resources
<p><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> Chapter Twelve lessons Chapter Twelve Practice Worksheets Teacher-Made Assessments Graphing Calculator Manual Solution Key for all sections 	<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><i>Holt Precalculus ©2006</i></p> <ol style="list-style-type: none"> Chapter Twelve lessons Chapter Twelve Practice Worksheets Teacher-Made Assessments Graphing Calculator Manual Solution Key for all sections 	<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
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>Test: On concepts involving Systems of Equations.</p>	<p>Completed by:</p> <p>Comments:</p>

Week 35		Week 36	
Performance Standards		Performance Standards	
<i>The students will:</i>		<i>The students will:</i>	
Unit/Topic/Lesson UNIT TWELVE LIMITS AND CONTINUITY		Unit/Topic/Lesson UNIT TWELVE LIMITS AND CONTINUITY	
<ol style="list-style-type: none"> 1. Informal Definition of Limit 2. Nonexistence Limits 3. Properties of Limits 4. The Limit Theorem 		<ol style="list-style-type: none"> 1. Definition of Continuity 2. Continuity of Special Functions 3. Continuity on an Interval 4. Properties of Continuous Functions 5. The Intermediate Value Theorem 6. Limits Involving Infinity 	
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 the informal definition of a limit. 2. To find the limit of the constant, identity, polynomial, and rational functions. 3. To use the Limit Theorem. 	<p>How are the properties for limits used to find the limit of a function?</p>	<ol style="list-style-type: none"> 1. To determine if a function is continuous at a point or on an interval. 2. To apply properties of continuous functions. 3. To define limits involving infinity. 4. To use properties of limits at infinity. 5. To use the Limit Theorem. 	<p>Why is it essential that the function be continuous on the interval, for the Intermediate Value Theorem to be true?</p>
Teacher Resources	Media Resources	Teacher Resources	Media Resources
<i>Holt Precalculus ©2006</i> <ol style="list-style-type: none"> 1. Chapter Fourteen lessons 2. Chapter Fourteen Practice Worksheets 3. Teacher-Made Assessments 4. Graphing Calculator Manual 5. Solution Key for all sections 	<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 	<i>Holt Precalculus ©2006</i> <ol style="list-style-type: none"> 1. Chapter Fourteen lessons 2. Chapter Fourteen Practice Worksheets 3. Teacher-Made Assessments 4. Graphing Calculator Manual 5. Solution Key for all sections 	<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		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 Limits and Continuity.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>