

CIS Pre-Calculus (Master)

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September 2020

Content	Skills	Learning Targets	Assessment	Resources & Technology
<p>CEQ: *How is the world of functions described? *What is the purpose of trigonometry and how is it used?</p> <p><i>UEQ:</i> What concepts can be used to draw graphs? What are the different characteristics of functions? What are the different type of functions and how are they manipulated? How are graphs and functions used to model real-world applications? </p>	<p>A. Rectangular Coordinates A1. Calculate distance between two points A2. Calculate the midpoint between two points A3. Use rectangular coordinates to model and solve real-life problems</p> <p>B. Graphs B1. Sketch graph by plotting points, using symmetry, and x and y intercepts B2. Determine if a graph has symmetry in the x-axis, y-axis, and/or origin B3. Write and graph equations of circles B4. Calculate slope,</p>	<p>A1. LT I can calculate distance between two points. (Section 1.1)</p> <p>A2. LT I can calculate the midpoint between two points. (Section 1.1)</p> <p>A3. LT I can use the coordinate plane and formulas to model and solve real-life problems. (Section 1.1)</p> <p>B1. LT1 I can identify intercepts of equations and use them to graph. (Section 1.2)</p> <p>B1. LT2 I can use symmetry to assist in</p>	<p>A. Rectangular Coordinates</p> <p>B. Graphs</p> <p>A1-B4 self written Quiz lessons 1.1-1.3</p> <p>C. Functions</p> <p>C1-C6 self written Quiz lessons 1.4-1.9</p> <p>CA: A1-A4, B1-B4, C1-C6 Chapter 1 Test (See shared folder)</p>	

<p>A. Rectangular Coordinates </p> <p>A1. Distance Formula </p> <p>A2. Midpoint Formula</p> <p>A3. RealWorld Applications</p> <p>B. Graphs</p> <p>B1. Representation by Point Plotting</p> <p>B2. Circles</p> <p>B3. Linear Equations</p> <p>B4. Real-Life Applications</p> <p>C. Functions</p> <p>C1. Definition and Evaluation</p> <p>C2. Graphs</p> <p>C3. Family of Parent Functions</p> <p>C4. Transformations</p> <p>C5. Combinations</p> <p>C6. Inverses</p>	<p>write and graph linear equations using multiple forms including parallel and perpendicular lines</p> <p>B5. Use graphs to model and solve real-life problems</p> <p>C. Functions</p> <p>C1. Define and evaluate functions using real-life applications</p> <p>C2. Identify and describe functions and their graphs by using domain, range, zeros, maximums, minimums, odd, even, increasing and decreasing</p> <p>C3. Recognize parent functions, identify and graph linear, squaring, cubic, square root, reciprocal, step, and piecewise functions.</p> <p>C4. Manipulate and graph functions by rigid and nonrigid transformations</p>	<p>sketching graphs. (Section 1.2)</p> <p>B2. LT I can determine if a graph has symmetry in the x-axis, y-axis, or origin. (Section 1.2)</p> <p>B3. LT I can write equations and graphs of circles. (Section 1.2)</p> <p>B4. LT1 I can calculate slope of a line. (Section 1.3)</p> <p>B4. LT2 I can write and graph linear equations of a line in slope-intercept, point-slope, & standard form. (Section 1.3)</p> <p>B4. LT3 I can use the concepts of parallel and perpendicular slopes to write equations. (Section 1.3)</p>		
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	<p>C5. Combine functions using addition, subtraction, multiplication, division, and composition as well as using combinations to model and solve real-life problems</p> <p>C6. Define and identify functions that are one-to-one</p> <p>C7. Find and verify inverse functions graphically and algebraically</p>	<p>B5. LT I can use functions to model and solve real-life problems. (Section 1.4)</p> <p>B6. LT I can find the domain of a function. (Section 1.4)</p> <p>C2. LT I can identify & describe functions and their graphs by using domain, range, zeros, maximums, minimums, odd, even, increasing, and decreasing. (Section 1.5)</p> <p>C3. LTI can define, graph and evaluate functions, including piecewise functions. (Section 1.6)</p> <p>C.4A LT I can identify and graph parent functions. (Section 1.6)</p> <p>C4.B LT I can write</p>		
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and graph linear equations in function form. **(Section 1.6)**

C4.C LT I can graph and evaluate the greatest integer function. **(Section 1.6)**

C4.D LT I can manipulate and graph functions using rigid and non-rigid transformations. **(Section 1.7)**

C5. LTI can combine functions using addition, subtraction, multiplication, division, and composition. **(Section 1.8)**

C6. LT I can identify functions that are one-to-one. **(Section 1.8)**

C7. LT I can find and verify inverse functions graphically and algebraically.

(Section 1.9)

October 2020

Content				
	Skills	Learning Targets	Assessment	Resources & Technology
<p><i>UEQ:</i> <i>What are the characteristics and behaviors of quadratic, polynomial, and rational functions?</i> <i>What are complex numbers and how are they manipulated?</i> <i>How are quadratic, polynomial, and rational functions used to model and solve real-life models?</i></p> <p> D. Quadratics D1. Graphs D2. Equations D3. Real-Life Applications</p> <p>E. Higher Degree Polynomials E1. Using Zeros E2. Leading Coefficients</p>	<p>D. Quadratics D1. Analyze and sketch graphs of quadratic functions in various forms D2. Write equations of parabolas in various forms D3. Use polynomials to model and solve real-life problems</p> <p>E. Higher Degree Polynomials E1. Use zeros to write a polynomial function. E2. Use the leading coefficient test to determine the end behaviors of polynomial functions</p>	<p>D1. LT I can analyze and sketch graphs of quadratic functions in standard, vertex, and intercept form. (Section 2.1)</p> <p>D2. LT I can write equations of parabolas in standard, vertex, and intercept form. (Section 2.1)</p> <p>D3. LT I can use polynomials, including finding maximums and minimums, to model and solve real-life problems. (Section 2.1)</p> <p>E1. LT I can use zeros to write a polynomial function. (Section 2.2)</p> <p>E2. LT I can use the leading coefficient test to</p>	<p>D. Quadratics D1-D3 self written Quiz</p> <p>E. Higher Degree Polynomials E1-E4 self written Quiz</p> <p>F. Complex Numbers G. Rational Functions</p>	

<p>E3. Zeros E4. Division</p> <p>F. Complex Numbers F1. Representation and Manipulation F2. Solutions</p> <p>G. Rational Functions G1. Domain G2. Asymptotes G3. Graphs G4. Real-Life Applications</p> <p>H. Inequalities H1. Solutions H2. Real-Life Applications</p>	<p>E3. Use factoring, a graphing calculator, and the intermediate value theorem to find and graph the zeros of a polynomial function E4. Use long and synthetic division to divide polynomials, including application of the remainder and factor theorems</p> <p>F. Complex Numbers F1. Use imaginary numbers to write, add, subtract, multiply, and divide complex numbers F2. Find complex solutions of quadratic equations F3. Apply the fundamental theorem of algebra F4. Find rational zeros of a polynomial F5. Find complex zeros of a polynomial</p> <p>G. Rational Functions G1. Determine the domain of a rational function G2. Find the horizontal, vertical, and slant asymptotes of rational</p>	<p>determine the end behaviors of polynomial functions. (Section 2.2)</p> <p>E3. LT I can use factoring, a graphing calculator, and the intermediate value theorem to find and graph the zeros of a polynomial function. (Section 2.2)</p> <p>E4. LT I can use long and synthetic division to divide polynomials, including application of the remainder and factor theorems. (Section 2.3)</p> <p>F1. LT I can use imaginary numbers to write, add, subtract, multiply, and divide complex numbers. (Section 2.4)</p> <p>F2. LT I can find complex solutions of quadratic equations. (Section 2.4)</p> <p>F3. LT I can apply the fundamental theorem of algebra. (Section 2.5)</p> <p>F4. LT I can find rational</p>	<p>F1-G4 self written Quiz</p> <p>CA: D1-D3, E1-E4, F1-F5, G1-G4, H1-H2 Chapter 2 Test (See shared folder)</p>	
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	<p>functions G3. Analyze and sketch graphs of rational functions G4. Use rational functions to model and solve real-life problems</p> <p>H. Inequalities H1. Solve polynomial and rational inequalities H2. Use inequalities to model and solve real-life problems</p>	<p>zeros of a polynomial. (Section 2.5)</p> <p>F5. LT I can find complex zeros of a polynomial and know they occur in pairs. (Section 2.5)</p> <p>G1. LT I can determine the domain of a rational function.(Section 2.6)</p> <p>G2. LT I can find the horizontal, vertical, and slant asymptotes of rational functions. (Section 2.6)</p> <p>G3. LT I can analyze and sketch graphs of rational functions.(Section 2.6)</p> <p>G4. LT I can use rational functions to model and solve real-life problems. (Section 2.6)</p> <p>H1. LT I can solve polynomial and rational inequalities.(Section 2.7)</p> <p>H2. LT I can use inequalities to model and solve real-life</p>		
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		problems. (Section 2.7)		
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November 2020

Content	Skills	Learning Targets	Assessment	Resources & Technology
CEQ: *How is the world of functions described? *What is the purpose of trigonometry and how is it used? UEQ: <i>What is an exponential function and how are they evaluated and graphed?</i>	I. Exponential Functions I1. Recognize and evaluate exponential functions with base a and base e I2. Graph exponential functions and apply the one-to-one property I3. Solve exponential equations J. Logarithmic Functions	I1. LT I can recognize and evaluate exponential functions with base a and base e. (Section 3.1) I2. LT I can graph exponential functions and apply the one-to-one property.(Section 3.1) I3. LT I can solve exponential equations.(Section 3.1)	I. Exponential Functions I1-I3 self written Quiz exponential functions J. Logarithmic Functions J1-J5 self written Quiz on logarithmic functions CA: I1-I3, J1-J5, K1 Chapter 3 Test (See shared folder)	

<p><i>What is a logarithmic function and how are they evaluated and graphed? How are exponential and logarithmic functions used to model and solve real-life problems?</i></p> <p>I. Exponential Functions</p> <p>I1. Characteristics and Evaluation</p> <p>I2. Graphs</p> <p>I3. Equations</p> <p>J. Logarithmic Functions</p> <p>J1. Characteristics and Evaluation</p> <p>J2. Graphs</p> <p>J3. Properties</p> <p>J4. Change-of-Base Formula</p> <p>J5. Equations</p> <p>K. Exponential and Logarithmic Models</p> <p>K1. Real-Life Applications</p>	<p>J1. Recognize and evaluate logarithmic functions with base a, base 10 (common log) and base e (natural log)</p> <p>J2. Graph logarithmic functions</p> <p>J3. Apply the properties of logarithms to evaluate, rewrite, expand, or condense logarithmic expressions</p> <p>J4. Use the change-of-base formula to rewrite and evaluate logarithmic expressions</p> <p>J5. Solve logarithmic equations</p> <p>K. Exponential and Logarithmic Models</p> <p>K1. Model and solve real-life problems using the exponential growth and decay functions, Guassian functions, logistic growth functions, and logarithmic functions</p>	<p>J1. LT I can recognize and evaluate logarithmic functions with base a, base 10 (common log) and base e (natural log).(Section 3.2)</p> <p>J2. LT I can graph logarithmic functions.(Section 3.2)</p> <p>J3. LT I can apply the properties of logarithms to evaluate, rewrite, expand, or condense logarithmic expressions.(Section 3.3)</p> <p>J4. LT I can use the change-of-base formula to rewrite and evaluate logarithmic expressions. (Section 3.3)</p> <p>J5. LT I can solve logarithmic equations.(Section 3.4)</p> <p>K1. LT I can model and solve real-life problems using the exponential growth and decay</p>	<p>L. Angles</p> <p>M. Trigonometric Functions</p> <p>L1-M5 self written Quiz on angles and trigonometric functions</p> <p>N. Graphs of Trigonometric Functions</p> <p>N1-N4 self written Quiz</p> <p>CA: L1-L3, M1-M5, N1-N4, O1 Chapter 4 Test (See shared folder)</p> <p>Q. Fundamental Trigonometric Identities</p> <p>Q1-Q3 self written Quiz</p> <p>R. Trigonometric Equations</p> <p>R1-R2 self written Quiz</p> <p>S. Trigonometric Formulas</p>	
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		<p>functions, and logarithmic functions. (Section 3.5)</p>	<p>S1 self written Quiz</p> <p>CA: Q1-Q3, R1-R2, S1, T1 Chapter 5 Test (See shared folder)</p> <p>CA: U1, U2, V1, W1, W2 Chapter 6 Test (See shared folder)</p> <p>IF TIME PERMITS:</p> <p>X. Solving Systems of Equations in Two Variables</p> <p>U1-U3 self written Quiz</p> <p>Y. Multivariable Systems</p> <p>Y1-Y3 self written Quiz</p> <p>Z. Partial Fractions</p> <p>AA. Inequalities</p> <p>AA1-AA3 self written Quiz</p> <p>CA: X1-X3, Y1-Y3, Z1,</p>	
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			<p>AA1-AA3, BB1-BB3 Chapter 7 Test (Do not always get to)</p>	
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December 2020

Content	Skills	Learning Targets	Assessment	Resources & Technology
<p>UEQ: <i>What are trigonometric functions and how are they worked with?</i> <i>How are trigonometric functions graphed and transformed?</i> <i>How are trigonometric functions used to model and solve real-life problems?</i></p> <p> L. Angles  L1. Description L2. Measurement</p>	<p>L. Angles L1. Define and describe angles in trigonometry L2. Measure angles using radians and degrees L3. Calculate the length of an intercepted arc of a circle and the area of a circular sector</p> <p>M. Trigonometric Functions</p>	<p>L1. LT I can define and describe angles in trigonometry. (Section 4.1)</p> <p>L2. LT I can measure angles using radians and degrees. (Section 4.1)</p> <p>L3. LTI can calculate the length of an intercepted arc of a circle and the area of a circular sector.(Section 4.1)</p>	<p>L. Angles</p> <p>M. Trigonometric Functions</p> <p>L1-M5 self written Quiz on angles and trigonometric functions</p> <p>N. Graphs of Trigonometric Functions</p> <p>N1-N4 self written Quiz</p>	

<p>L3. Arc Length and Area of a Circular Section</p> <p>L4. Real-Life Applications</p> <p>M. Trigonometric Functions</p> <p>M1. Unit Circle</p> <p>M2. Evaluation</p> <p>M3. Right Triangle Trigonometry</p> <p>M4. Fundamental Trigonometric Identities</p> <p>M5. Trigonometric Functions of Any Size Angle</p> <p>N. Graphs of Trigonometric Functions</p> <p>N1. Graphs</p> <p>N2. Translations</p> <p>N3. Inverse Functions</p> <p>N4. Compositions of Trigonometric Functions</p> <p>O. Real-Life Applications</p> <p>O1. Models of</p>	<p>M1. Identify the unit circle and define the six trigonometric functions</p> <p>M2. Evaluate trigonometric functions using the unit circle, a calculator, and the domain and period of the sine and cosine functions</p> <p>M3. Evaluate trigonometric functions of acute angles using right triangle definitions</p> <p>M4. Evaluate trigonometric functions by applying trigonometric identities</p> <p>M5. Evaluate the trigonometric functions of any size angle using x, y, and r ratios and reference angles</p> <p>N. Graphs of Trigonometric Functions</p> <p>N1. Sketch the graphs of</p>	<p>M1. LT I can identify the unit circle and define the six trigonometric functions.(Section 4.2)</p> <p>M2. LT I can evaluate trigonometric functions using the unit circle, a calculator, and the domain and period of the sine and cosine functions. (Section 4.2)</p> <p>M3. LT I can evaluate trigonometric functions of acute angles using right triangle definitions. (Section 4.3)</p> <p>M4. LT I can evaluate trigonometric functions by applying trigonometric identities. (Section 4.3)</p> <p>M5. LT I can evaluate the trigonometric functions of any size angle using x, y, and r ratios and reference angles.(Section 4.4)</p>	<p>CA: L1-L3, M1-M5, N1-N4, O1 Chapter 4 Test (See shared folder)</p>	
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<p>Trigonometric Functions</p>	<p>the six trigonometric functions N2. Use amplitude and period to sketch translations of the six trigonometric graphs N3. Evaluate and graph the inverse sine, cosine, and tangent functions N4. Evaluate compositions of trigonometric functions</p> <p>O. Real-Life Applications O1. Solve real-life problems involving trigonometric functions, right triangles, and directional bearings</p>	<p>N1. LT I can sketch the graphs of the six trigonometric functions. (Section 4.5 & 4.6)</p> <p>N2. LT I can use amplitude and period to sketch translations of the six trigonometric graphs. (Section 4.5 & 4.6)</p> <p>N3. LT I can evaluate the six inverse trigonometric functions. (Section 4.7)</p> <p>N4. LT I can evaluate compositions of trigonometric functions. (Section 4.7)</p> <p>O1. LT I can solve real-life problems involving trigonometric functions, right triangles, and directional bearings(Section 4.8)</p>		
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January 2021

Content	Skills	Learning Targets	Assessment	Resources & Technology
<p>CEQ: *How is the world of functions described? *What is the purpose of trigonometry and how is it used?</p> <p>UEQ: <i>What are the fundamental trigonometric identities and formulas and how are they used?</i></p> <p><i>P. Fundamental Trigonometric Identities</i> <i>P1. Recognition</i> <i>P2. Evaluation and Simplification</i> <i>P3. Verification</i></p> <p><i>Q. Trigonometric Equations</i> <i>Q1. Evaluation</i> <i>Q2. Evaluation of</i></p>	<p>P. Fundamental Trigonometric Identities P1. Recognize and write the fundamental identities P2. Use the fundamental trigonometric identities to evaluate, simplify, and rewrite the trigonometric functions and expressions Q3. Verify trigonometric identities</p> <p>Q. Trigonometric Equations Q1. Solve trigonometric equations using algebraic techniques, factoring, the quadratic formula, and inverse trigonometric functions Q2. Solve trigonometric equations that involve multiple angles</p> <p>R. Trigonometric</p>	<p>P1. LT I can recognize and write the fundamental identities P2. LT I can use the fundamental trigonometric identities to evaluate, simplify, and rewrite the trigonometric functions and expressions P3. LT I can verify trigonometric identities</p> <p>Q1. LT I can solve trigonometric equations using algebraic techniques, factoring, the quadratic formula, and inverse trigonometric functions Q2. LT I can solve trigonometric equations that involve multiple angles</p>	<p>P. Fundamental Trigonometric Identities P1-P3 self written Quiz</p> <p>Q. Trigonometric Equations Q1-Q2 self written Quiz</p> <p>R. Trigonometric Formulas R1 self written Quiz</p>	

<p><i>Multiple Angle Equations</i></p> <p><i>R. Trigonometric Formulas</i></p> <p><i>R1. Evaluation</i></p> <p><i>S. Real-Life Applications</i></p> <p><i>S1. Real-Life Models</i></p>	<p>Formulas</p> <p>R1. Use sum and difference, multiple-angle, power-reducing, half-angle, product-to-sum, and sum-to-product formulas to rewrite and evaluate trigonometric functions</p> <p>S. Real-Life Applications</p> <p>S1. Rewrite real-life models using trigonometric formulas</p>	<p>R1. LT I can use sum and difference, multiple-angle, power-reducing, half-angle, product-to-sum, and sum-to-product formulas to rewrite and evaluate trigonometric functions</p> <p>S1. LT I can rewrite real-life models using trigonometric formulas</p>	<p>CA: P1-P3, Q1-Q2, R1, S1 Chapter 5 Test (See shared folder)</p>	
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February 2021

Content	Skills	Learning Targets	Assessment	Resources & Technology
<p><i>UEQ:</i></p> <p><i>How is trigonometry used to solve non-right triangles?</i></p> <p><i>What are vectors and how are they used?</i></p> <p><i>T. Law of Sines</i></p> <p><i>T1. Solving</i></p> <p><i>T2. Ambiguous Case</i></p>	<p>T. Law of Sines</p> <p>T1. Use the law of sines to solve triangles</p> <p>T2. Analyze and use given information to determine if there are 0, 1, or 2 triangles</p> <p>U. Law of Cosines</p> <p>U1. Use the law of cosines to solve triangles</p>	<p>T1. LT I can use the law of sines to solve triangles</p> <p>T2. LT Analyze and use given information to determine if there are 0, 1, or 2 triangles</p> <p>U1. LT I can use the law of cosines to solve triangles</p>	<p>CA: T1, T2, U1, V1, V2 Chapter 6 Test (See shared folder)</p>	

<p><i>U. Law of Cosines</i> <i>U1. Solving</i></p> <p> <i>V. Vectors</i> <i>V1. Component Form</i> <i>V2. Properties</i></p>	<p>V. Vectors V1. Use and apply the component form of a vector V2. Use addition and scalar multiplication to manipulate vectors</p>	<p>V1. LT I can use and apply the component form of a vector V2. LT I can use addition and scalar multiplication to manipulate vectors</p>		
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March 2021

Content	Skills	Learning Targets	Assessment	Resources & Technology
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<p><i>UEQ:</i> How are systems of equations and inequalities in two or more variables solved? How are systems of equations and inequalities used to model and solve real-life problems?</p> <p><i>W. Solving Systems of Equations in Two Variables</i></p> <p><i>W1. Substitution</i> <i>W2. Graphing</i> <i>W3. Elimination</i></p> <p><i>X. Multivariable Systems</i></p> <p><i>X1. Back-Substitution</i> <i>X2. Gaussian Elimination</i> <i>X3. Nonsquare Systems</i></p> <p><i>Y. Partial Fractions</i></p> <p><i>Y1. Recognition and Decomposition</i></p> <p><i>Z. Inequalities</i></p> <p><i>Z1. Graphing</i> <i>Z2. Systems of Inequalities</i></p>	<p>W. Solving Systems of Equations in Two Variables</p> <p>W1. Solve linear and nonlinear systems in two variables by the substitution method W2. Use graphing to solve and interpret the solutions in a system of equations W3. Solve linear systems in two variables by the elimination method</p> <p>X. Multivariable Systems</p> <p>X1. Use back-substitution to solve linear systems in row-echelon form X2. Use gaussian elimination to solve systems of linear equations X3. Solve nonsquare systems of linear equations</p> <p>Y. Partial Fractions</p> <p>Y1. Recognize and find partial fraction decompositions of rational expressions</p> <p>Z. Inequalities</p> <p>Z1. Graph inequalities in two variables</p>	<p>W1. LT I can solve linear and nonlinear systems in two variables by the substitution method W2. LT I can use graphing to solve and interpret the solutions in a system of equations W3. LT I can solve linear systems in two variables by the elimination method</p> <p>X1. LT I can use back-substitution to solve linear systems in row-echelon form X2. LT I can use gaussian elimination to solve systems of linear equations X3. LT I can solve nonsquare systems of linear equations</p> <p>Y1. LT I can recognize and find partial fraction decompositions of rational expressions</p> <p>Z1. LT I can graph</p>	<p>W. Solving Systems of Equations in Two Variables</p> <p>W1-W3 self written Quiz</p> <p>X. Multivariable Systems</p> <p>X1-X3 self written Quiz</p> <p>Y. Partial Fractions</p> <p>Z. Inequalities</p> <p>Z1-Z3 self written Quiz</p>	
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<p><i>Z3. Linear Programming</i></p> <p><i>AA. Real-Life Applications</i></p> <p><i>AA1. Systems of Equations</i></p> <p><i>AA2. Systems of Inequalities</i></p> <p><i>AA3. Linear Programming</i></p>	<p>Z2. Solve systems of inequalities</p> <p>Z3. Solve linear programming problems</p> <p>AA. Real-Life Applications</p> <p>AA1. Use systems of equations in two or more variables to model and solve real-life problems</p> <p>AA2. Use systems of inequalities in two variables to model and solve real-life problems</p> <p>AA. Use linear programming to model and solve real-life problems</p>	<p>inequalities in two variables</p> <p>Z2. LT I can solve systems of inequalities</p> <p>Z3. LT I can solve linear programming problems</p> <p>AA1. LT I can use systems of equations in two or more variables to model and solve real-life problems</p> <p>AA2. LT I can use systems of inequalities in two variables to model and solve real-life problems</p> <p>I can use linear programming to model and solve real-life problems</p>	<p>CA: W1-W3, X1-X3, Y1, Z1-Z3, AA1-AA3</p> <p>Chapter 7 Test</p>	
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April 2021

Content	Skills	Learning Targets	Assessment	Resources & Technology
<p><i>UEQ:</i></p> <p><i>What is a matrix?</i> <i>How do I use matrix operations to simplify and solve matrices?</i></p> <p>BB. Matrices & Systems BB1. Order BB2. Row Operations BB3. Gaussian Elimination BB4. Gauss-Jordan Elimination</p> <p>CC. Matrix Operations CC1. Matrix Equivalency CC2. Matrix Operations CC3. Matrix Multiplication CC4. Real-Life Applications</p>	<p>BB. Matrices & Systems BB1. Write matrices and identify their order BB2. Perform elementary row operations on matrices BB3. Use Gaussian elimination to solve systems of linear equations BB4. Use Gauss-Jordan elimination to solve systems of linear equations</p> <p>CC. Matrix Operations CC1. Determine if matrices are equivalent CC2. Add and subtract matrices and multiply by a scalar CC3. Multiply matrices CC4. Model and solve real-life problems using matrices</p> <p>DD. Inverse of a Matrix DD1. Verify that two</p>	<p>BB1. LT I can write matrices and identify their order BB2. LT I can perform elementary row operations on matrices BB3. LT I can use Gaussian elimination to solve systems of linear equations BB4. LT I can use Gauss-Jordan elimination to solve systems of linear equations</p> <p>CC1. LT I can determine if matrices are equivalent CC2. LT I can add and subtract matrices and multiply by a scalar CC3. LT I can multiply matrices CC4. LT I can model and solve real-life problems using matrices</p>	<p>BB. Matrices and Systems</p> <p>CC. Matrix Operations BB1-BB4, CC1-CC4 self written Quiz</p> <p>DD. Inverse of a Matrix CSA: BB1-BB4, CC1-CC4, DD1-DD4 Chapter 8 (8.1-8.3) Test</p>	

<p>DD. Inverse of a Matrix DD1. Inverse Matrices DD2. 2x2 Inverse Formula DD3. 3x3 Inverse DD4. Inverse Matrix to Solve</p>	<p>matrices are inverses of each other DD2. Use a formula to find the inverses of 2x2 matrices. DD3. Use Gauss-Jordan elimination to find inverses of matrices DD4. Use inverse matrices to solve systems of linear equations</p>	<p>DD1. LT I can verify two matrices are inverses of each other DD2. LT I can use a formula to find the inverses of 2x2 matrices DD3. LT I can use Gauss-Jordan elimination to find the inverses of matrices DD4. LT I can use inverse matrices to solve systems of linear equations</p>		
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May 2021

Content	Skills	Learning Targets	Assessment	Resources & Technology
<p>CEQ: *How is the world of functions described? *What is the purpose of trigonometry and how is it used?</p> <p>UEQ: <i>What is a conic?</i> <i>What are the equations of conics and how are they</i></p>	<p>HH. Lines HH1. Find the inclination of a line HH2. Find the angle between two lines HH3. Find the distance between a point and a line</p> <p>II. Conics II1. Recognize a conic as the intersection of a plane and a double-napped cone II2. Write equations</p>	<p>HH1. LT I can find the inclination of a line. HH2. LT I can find the angle between two lines HH3. LT I can find the distance between a point and a line</p> <p>III. LT I can recognize a conic as the intersection of a plane and a</p>	<p>HH. Lines</p> <p>II. Conics</p> <p>HH1-II2 self written Quiz</p>	

<p><i>graphed?</i> <i>How are conics used to model and solve real-life equations?</i></p> <p>HH. Lines HH1. Inclination HH2. Angle Measure HH3. Distance</p> <p>II. Conics II1. Definition II2. Parabolas II3. Ellipses II4. Hyperbolas II5. Classification</p> <p>JJ. Real-Life Applications JJ1. Real-Life Models</p> <p>JJ1. LT I can model and solve real-life problems using the reflective property of parabolas, the properties of ellipses, and the properties of hyperbolas</p>	<p>of parabolas in standard form and graph parabolas using a focus and directrix</p> <p>II3. Write equations, graph, and find eccentricities or ellipses</p> <p>II4. Write equations, graph, and find the asymptotes of hyperbolas</p> <p>II5. Classify conics from their general equations</p> <p>JJ. Real-Life Applications JJ1. Model and solve real-life problems using the reflective property of parabolas, the properties of ellipses, and the properties of hyperbolas</p>	<p>double-napped cone</p> <p>II2. LT I can write equations of parabolas in standard form and graph parabolas using a focus and directrix.</p> <p>II3. LT I can write equations, graph, and find eccentricities or ellipses</p> <p>II4. LT I can write equations, graph, and find the asymptotes of hyperbolas</p> <p>II5. LT I can classify conics from their general equations</p>	<p>JJ. Real-Life Applications</p> <p>CSA: HH1-HH3, II1-II5, JJ1 Chapter 10 (10.1-10.4) Test</p>	
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