Date Taught	Objective	Standard	Text Section	Section Name	Additional Resources	Suggested Time Frame (Block)	Ch. Time Frame
				Expressions and			
	Interpret parts of an expression, such as terms,	A.SSE.1.a, A.SSE.1.b	1.1	Formulas		1/2	
	factors, and coefficients. [A.SSE.1a] Interpret complicated expressions by viewing one or more	4 665 0	4.0	Properties of Real		1/2	
	of their parts as a single entity.[A.SSE.1b]Use the	A.SSE.2	1.2	Numbers		1/2	
	structure of an expression to identify ways to	A.CED.1	1.3	Solving Equations Solving Absolute		1/2	
	rewrite it [A.SSE.2]Create equations and inequalities in one variable and use them to solve	A.SSE.1.b, A.CED.1	1.4	Value Equations		1/2	
	problems. [A.CED.1] Represent constraints by	A.33L.1.0, A.CLD.1	1.4	value Equations		1/2	5 Days
	equations or inequalities, and by systems of equations and/or inequalities, and interpret	A.CED.1, A.CED.3	1.5	Solving Inequalities		1/2	•
	solutions as viable or nonviable options in a			Solving Compound			
	modeling context. [A.CED.3]			and Absolute Value			
		A.CED.1, A.CED.3	1.6	Inequalities		1/2	
		Review Ch. 1				1	
		Test Ch. 1				1	
	Interpret complicated expressions by viewing one or more of their parts as a single entity.[A.SSE.1b] Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with lables and scales. [A.CED.2] For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the	F.IF.4, F.IF.5	2.1	Relations and Functions		1/2	
	quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include intercepts; intervals where the function is increasing, decreasing, positive, or	F.IF.4, F.IF.9	2.2	Linear Relations and Functions		1/2	
	negative; relative maximums and minimums; symmetries; end behavior; and periodicity. [F.IF.4] Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes.* [F.IF.5] Calculate and interpret the	F.IF.4, F.IF.6	2.3	Rate of Change and Slope		1/2	5 Days
	average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph. * [F.IF.6] Compare properties of two functions each represented ina different way (algebraically, graphically, numerically in tables, or by verbal descriptions). [F.IF.9]			Writing Linear			
		A.SSE.1b, A.CED.2, F.IF.4	2.4	Equations		1	
		Review 2.1-2.4				1	
		Test 2.1-2.4				1	

Date			Text		Additional	Suggested Time	Ch. Time
Taught	Objective	Standard	Section	Section Name	Resources	Frame (Block)	Frame
	For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity. [F.IF.4] Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases. * [F.IF.7] Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions. [F.IF.7b] Identify the effect on the graph of replacing f(x) by f(x)+k, kf(x), f(kx), and f(x+k) for specific values of k; find the value of k given the graphs. Experiment with cases and illustrate an explanation of the	F.IF.4, F.IF.7.b, F.BF.3 F.IF.4, F.BF.3 A.CED.3	2.6	Parent Functions Parent Functions and Transformations Graphing Linear and Absolute Value Inequalities	LTF Parent Functions	1/2	
	effects on the graph using technology. Include recognizing even and odd functions from their graphs and algebraic expressions for them. [F.BF.3] Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. [A.CED.3]	F.IF.4, F.IF.6, F.IF.8.a, F.BF.3	4.7	Transformations of Quadratic Graphs		1/2	5 Days
	Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph. * [F.IF.6] Write a function defined by an expression in different but equivalent forms to reveal and explain different	F.IF.7.b, F.BF.3	6.3	Square Root Functions and Inequalities		1/2	
	properties of the function. [F.IF.8] Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with lables and scales. [A.CED.2]	A.CED.2, F.BF.3	8.3	Graphing Reciprocal Functions		1/2	
	Review F	Parent and Translation Gr	aphs			1	
	Test Pa	rent and Translation Gra	phs			1	

Date Taught	Objective	Standard	Text Section	Section Name	Additional Resources	Suggested Time Frame (Block)	Ch. Time Frame
	Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. [A.CED.3] Explain why the x-coordinates of the points where the graphs of the equations y=f(x) and y=g(x) intersect are the solutions of the equation f(x)=g(x); find the solutions approximately, using technology to graph the functions, make tables of values, or find successive approximations. Include cases where f(x) are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.* [A.REI.11]	A.CED.3 A.CED.3 A.CED.3	3.1	Solving Systems of Equations Solving Systems of Inequalities by Graphing Optimization with Linear Programming		1/2	
		A.CED.3	3.4	Systems of Equations in Three Variables		1	
	Use matrices to represent and manipulate data [N.VM6] Multiply matrices by scalars to produce new matrices [N.VM7]. Add, Subtract, and multiply matrices of appropriate dimensions [N.VM8]. Understand that, unlike multiplication of numbers, matrix multiplication for square matrices is not a commutative operation, but still satisfies the associative and distributive properties. [N.VM9]. Understand that the zero and identity matrices play a role in matrix addition and multiplication similar to the role of 0 and 1 in the real numbers. The determinant of a square matrix is nonzero if and only if the matrix has a multiplicative inverse. [N.VM10] Find the inverse of a matrix if it exists and use it to solve systems of linear equations (using technology) [A.REI9].	N.VM.6,7,8 N.VM.9	3.5	Operations with matrices		1/2 day	7 Days
		N.VM.10 (determint only)	3.7	Multiplying matrices Solving systems of equations using Kramer's rule		1/2 day	
		N.VM.10 (inverses), A.RE.9	3.8	Solving systems of equations using inverse matrices		1/2 day	
		Review 3.1-3.4				1	
		Test 3.2-3.4				1	

Date Taught Objective	Standard	Text Section	Section Name	Additional Resources	Suggested Time Frame (Block)	Ch. Time Frame
raugiit	Standard	Section	Section Name	Resources	Traine (Block)	Traine
Interpret parts of an expression, such as terms, fac and coefficients. [A.SSE.1a] For a function that mod relationship between two quantities, interpret k features of graphs and tables in terms of the quant	els a	4.1	Graphing Quadratic Functions		1/2	
and sketch graphs showing key features given a ve description of the relationship. Key features inclu intercepts; intervals where the function is increasi decreasing, positive, or negative; relative maximum	de		Solving Quadratic Equations by			
minimums; symmetries; end behavior; and periodi	,, ,	4.2	Graphing		1/2	
[F.IF.4] Compare properties of two functions ear represented ina different way (algebraically, graphi- numerically in tables, or by verbal descriptions). [F. Create equations in two or more variables to repre- relationships between quantities; graph equations	rally, F.9] Review	0.3	Factoring Polynomials		1/2	
coordinate axes with lables and scales. [A.CED.2] Ex why the x-coordinates of the points where the grap the equations $y=f(x)$ and $y=g(x)$ intersect are the solution of the equation $f(x)=g(x)$; find the solutions approxim	olain ns of tions	4.2	Solving Quadratic Equations by		4/2	
using technology to graph the functions, make table	A.SSE.Z. F.IF.O.d	4.3	Factoring		1/2	
values, or find successive approximations. Include of where f(x) are linear, polynomial, rational, absolute exponential, and logarithmic functions.* [A.REI.11] the structure of an expression to identify ways to re	ralue, Use Review		Simplifying Square Roots		1/2	
it. [A.SSE.2] Write a function defined by an expressi different but equivalent forms to reveal and expl different properties of the function. [F.IF.8] Know th a complex number i such that i^2=-1, and every con	in ere is N CN 1 N CN 2 N CN 3	4.4	Complex Numbers		1/2	7 Days
number has the form a+bi with a and b real. [N.CN.1 the relation i^2=-1 and the commutative, associative distributive properties to add, subtract, and multi	Use , and olv	4.5	Completing the		4/2	
complex numbers. [N.CN.2] Solve quadratic equati with real coefficients that have complex solutions. {N Find the moduli and quotient of complex number [N.CN.7] Interpret complicated expressions by viewing	.CN.3 s]	4.5	Square		1/2	
or more of their parts as a single entity.[A.SSE.1b] Id the effect on the graph of replacing $f(x)$ by $f(x)+k$, k f(kx), and $f(x+k)$ for specific values of k ; find the value	entify f(x), e of k		The Quadratic Formula and the			
given the graphs. Experiment with cases and illustra explanation of the effects on the graph using techno	logy.	4.6	Discriminant		1/2	
Include recognizing even and odd functions from t graphs and algebraic expressions for them. [F.BF.3] (equations and inequalities in one variable and use th solve problems. [A.CED.1] Represent constraints equations or inequalities, and by systems of equat and/or inequalities, and interpret solutions as viable nonviable options in a modeling context. [A.CED.	reate em to by ons e or					
January Spaces and Moderning Contents (MCLD)	A.CED.1, A.CED.3	4.8	Quadratic Inequalities		1/2	
	Review Ch. 4				1	
	Test Ch. 4				1	

Date			Text		Additional	Suggested Time	Ch. Time
Taught	Objective	Standard	Section	Section Name	Resources	Frame (Block)	Frame
	Understand that polynomials form a system analogous to the intergers; namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials. [A.APR.1] For a function that			Operations with			
	models a relationship between two quantities,	A.APR.1	5.1	Polynomials		1/2	
	interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end	F.IF.4, F.IF.7.c	5.3	Polynomial Functions			
	behavior; and periodicity. [F.IF.4] Graph polynomial functions, identifying zeros when suitable factorizations are available, and showing end behavior. [F.IF.7c] Create equations and inequalities in one variable and use them to solve problems. [A.CED.1] Explain why the x-coordinates	F.IF.4, F.IF.7.c	5.4	Analyzing Graphs of Polynomial Functions		1	
	of the points where the graphs of the equations y=f(x) and y=g(x) intersect are the solutions of the equation f(x)=g(x); find the solutions approximately, using technology to graph the functions, make tables of values, or find successive approximations. Include cases where f(x) are	A.CED.1, A.REI.11	5.5	Solving Polynomial Equations			6 Days
	linear, polynomial, rational, absolute value, exponential, and logarithmic functions.* [A.REI.11]	A.APR.6, F.IF.4	5.2	Dividing Polynomials		1/2	
	Rewrite simple rational expressions in different forms; write polynomials in the form q(x)+r(x)/b(x), using inspection, long division, or for the more complicated examples, a computer algebra system. [A.APR.6] Know and apply the Remainder Theorem. [A.APR.2] Know the	A.APR.2, F.IF.7.c	5.6	The Remainder and Factor Theorem		1/2	
	Fundamental Theorem of Algebra [N.CN.9] Identify zeros of polynomials when suitable factorizations are available, and use the zeros to construct a rough graph of the function defined by the polynomial. [A.APR.3] Prove polynomial	N.CN.9, A.APR.3, A.APR.4	5.7	Roots and Zeros		1	
	identities and use them to descrive numerical relationships. [A.APR.4] Know and apply the Binomial Theorem for the expressions with n power using Pascal's Triangle. [A.APR.5]						
		Review Ch. 5 & 10.6				1	
		Test Ch. 5 & 10.6				1	

Date Taught	Objective	Standard	Text Section	Section Name	Additional Resources	Suggested Time	
Taught	Compare properties of two functions each represented ina different way (algebraically, graphically, numerically in tables, or by verbal descriptions). [F.IF.9] Combine standard function types using arithmetic operations. [F.BF.1b] For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity. [F.IF.4] Solve an equation of the form f(x)=c for a simple function f that has an inverse, and write an expression for the inverse. [F.BF.4a] Use the structure of an expression to identify ways to rewrite it [A.SSE.2] Solve simple rational and radical equations in one variable, and give examples showing how	F.IF.9, F.BF.1.b A.SSE.2, F.IF.7.b, F.BF.3	6.1 6.4	Operations on Functions nth Roots	Resources	1/2	Frame 6 Days
	extraneous solutions may arise. [A.REI.2] Explain why the x-coordinates of the points where the	A.SSE.2	6.5	Operations with Radical Expressions		1/2	
	graphs of the equations y=f(x) and y=g(x) intersect are the solutions of the equation f(x)=g(x); find the solutions approximately, using technology to graph the functions, make tables of values, or find successive approximations. Include cases where f(x) are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.* [A.REI.11]	Review	6.6	Rational Exponents		1/2	
		A.REI.2, A.REI.11	6.7	Solving Radical Equations and Inequalities		1/2	
		Review Ch. 6				2	
		Test Ch. 6				1	

Date Taught	Objective	Standard	Text Section	Section Name	Additional Resources	Suggested Time Frame (Block)	Ch. Time Frame
				Inverse Fuunction and			
		F.BF.4.a	6.2	Relations		1/2	
	Graph exponential and log functions showing interceps and end behavior [F.IF.7e] Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function. [F.IF.8] Explain why the x-coordinates of the points where the graphs of the equations y=f(x) and y=g(x) intersect are the solutions of the equation f(x)=g(x); find the solutions approximately, using technology to graph the functions, make tables of values, or find successive approximations. Include cases where f(x) are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.* [A.REI.11] Create equations and inequalities in one variable and use them to	F.BF.4.a F.IF.7.e, F.IF.8.b, A.REI.11 A.CED.1, F.LE.4 F.IF.7.e, F.BF.3	7.1 7.2	Relations Graphing Exponential Functions Solving Exponential Equations and Inequalities Logarithms and Logarithmic Functions		1/2 1/2 1/2	
	solve problems. [A.CED.1] For exponential models, express as a log the solution to ab^et=d where a, c, and d are numbers, and the base is 2, 10, or e evaluate the log using technology. [F.LE.4] Identify the effect on	A.SSE.2, A.CED.1	7.4	Solving Logarithmic Equations and Inequalities		1	8 Days
	the graph of replacing f(x) by f(x)+k, kf(x), f(kx), and f(x+k) for specific values of k; find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. Include recognizing even and odd functions	A.CED.1	7.5	Properties of Logarithms		1	
	from their graphs and algebraic expressions for them. [F.BF.3] Use the structure of an expression to identify ways to rewrite it [A.SSE.2] Build a function that models the	A.CED.1, A.REI.11 A.SSE.2	7.6	Common Logarithms Base e and Natural Logarithms		1/2	
	temperature of a cooling body by adding a constant function to a decaying exponential, and relate the functions to the model. [F.BF.1b]	F.IF.8.b, F.LE.4, F.BF.1.b	7.8	Using Exponential and Logarithmic Functions		1	
		Review Ch. 7				1	
		Test Ch. 7				1	

Date			Text		Additional	Suggested Time	Ch. Time
Taught	Objective	Standard	Section	Section Name	Resources	Frame (Block)	Frame
	Understand that rational expressions form a system analogous to the rational numbers, closed under addition, subtraction, multiplication, and division by a nonzero rational expression; add, subtract, multiply,	Review	8.1	Multiplying and Dividing Rational Expressions		1/2	
	and divide rational expressions. [A.APR.7] Create equations in two or more variable to represent relationships between quantities; graph equations on coordinate axes with lables and scales. [A.CED.2] Represent constraints by equations or inequalities, and by systems of equations and/or inequalities,	Review	8.2	Adding and Subtracting Rational Expressions		1/2	
	and interpret solutions as viable or nonviable options in a modeling context. [A.CED.3] Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal description. [F.IF.9] Create equations and inequalities in one variable and use them to solve problems. [A.CED.1] Solve simple rational and radical equations in one	A.CED.2, F.IF.9	8.4	Graphing Rational Functions		1	5 Days
	variable, and give examples showing how extraneous solutions may arise. [A.REI.2] Explain why the x-coordinates of the points where the graphs of the equations y=f(x) and y=g(x) intersect are the solutions of the equation f(x)=g(x); find the solutions approximately, using technology to graph the functions, make tables of values, or find	A.CED.2	8.5	Variation Functions		1/2	
	successive approximations. Include cases where f(x) are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.* [A.REI.11]	A.CED.1, A.REI.2, A.REI.11	8.6	Solving Rational Equations and Inequalities		1	
		Review Ch. 8				1	-
		Test Ch. 8				1	

Date	Objective		Text	6 vi N	Additional	Suggested Time	
Taught		Standard	Section	Section Name	Resources	Frame (Block)	Frame
	Understand the graphs and equations of		9.3	Circles		1/2	
	conic sections. (Emphasize understanding graphs and equations of		9.4	Ellipses		1/2	
	circles and parabolas). Create graphs of conic sections, including parabolas,	AL Standard 28	9.5	Hyperbolas		1/2	
	hyperbolas, ellipses, circles, and			Identifying Conic			5 Days
	degenerate conics, from second degree		9.6	Sections		1/2	
	equations.			Solving systems			
			9.7	nonlinear		1	
		Review C	h. 9				
		Test Ch	. 9				1

Date	Ol: ::		Text		Additional	Suggested Time	Ch. Time
Taught	Objective	Standard	Section	Section Name	Resources	Frame (Block)	Frame
	Understand radian measure of an angle as the length of the arc on the unit circle subtended by the angle. [F.TF.1] Explain how the unit circle in the coordinate plane enables the extension of trig functions to all real numbers, interpreted as radian measures of angles traversed counterclockwise around the unit circle. [F.TF.2] Define six trig functions using ratios of the sides of a right triangle, coordinates on the unit circle, and the reciprocal of other functions. [AL Standard]	AL Standard F.TF.1 AL Standard F.TF.1, F.TF.2 Review 12.1-12.6	12.1 12.2 12.3	Trig Functions in Right Triangles Angles and Angle Measure Trig Functions of General Angles Circular and Periodic Functions		1 1 2	7 Days
		Test 12.1-12.6				1	
						1	

Date Taught	Objective	Standard	Text Section	Section Name	Additional Resources	Suggested Time Frame (Block)	Ch. Time Frame
	Graph trig functions, showing period, midline, and amp. [F.IF.7e] Choose trig functions to model periodic phenomena with specified amp, frequency, and midline. [F.TF.5] Identify the effect on the graph of replacing f(x) by f(x)+k, kf(x), f(kx), and f(x+k) for specific values of k; find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. Include recognizing even and odd functions from their graphs and algebraic expressions for them. [F.BF.3] Create equations in two or more variable to represent relationships between quantities; graph equations on coordinate axes with labels and scales.	F.IF.7.e, F.TF.5, F.BF.3	12.7	Graphing Trig Functions		2	4 Days
	[A.CED.2]	D. 1. 42.7.42.0					
		Review 12.7-12.9 Test 12.7-12.9				1	
Date		1630 12.7-12.5	Text		Additional	Suggested Time	Ch. Time
Taught	Objective	Standard	Section	Section Name	Resources	Frame (Block)	Frame
		S.CP.9	11.1	Permutations and Combinations	Pearson Alg 2 book	1/2	
	Describe events as subsets of a sample space, using outcomes, unions and intersections and complements [S.CP1] Understand the conditional probability of A given	S.CP.1-8	11.2	Probability	Pearson Alg 2 book	1/2	
	B as P, and interpret indepedence of A and B [S.CP.3] Construct and interpret two-way frequency tables of data [S.CP.4] Recognize and explain the concepts of conditional probability and independence in everyday language and everyday situations [S.CP.5] Find the	S.CP.1-8	11.3	Probability of Multiple events	Pearson Alg 2 book	1/2	
	conditional probability of A given B as the fraction of B's outcomes that also belong to A, and intrepret the answer in terms of the model [S.CP.6] Appy the Addition Rule	S.CP.1-8	11.4	Conditional Probability	Pearson Alg 2 book	1/2	5 Days
	[S.CP.7] Apply the general Multiplication Rule [S.CP.8] Use permutations and combinations to compute probabilites of compound events and solve problems. [S.CP.9] Use probabilities to make fair decisions. [S.MD.6] Analyze decisions and strategies using probability concepts. [S.MD.7]	S.CP.1-8	11.5	Probability Models	Pearson Alg 2 book	1/2	
		S.CP.1-8, S.MD.6, S.MD.7	11.6	Analyzing Data	Pearson Alg 2 book	1/2	
		Review Ch. 11	· · · · · · · · · · · · · · · · · · ·			1	
		Test Ch. 11				1	
	Re	eview for Semester Exam Semester Exam				3	4 Days
				1			