Algebra 1 Part B Curriculum

Estimated Time Frame for Units	Big Ideas	Essential Questions	Concepts	Competencies	Lessons Objectives and Suggested Resources	Vocabulary	Standards
	Course Preview Incidentals, Books, Seating Charts, Class Rules and Procedures Duration: 1 Day						
Unit 3 Linear Functions							
Unit 3 **15 Days**	Relations and functions are mathematical relationships that can be represented and analyzed using words, tables, graphs, and equations.	How do you write, solve, graph, and interpret linear equations and inequalities to model relationships between quantities?	Functions and multiple representations	Represent functions (linear and non-linear) in multiple ways, including tables, algebraic rules, graphs, and contextual situations and make connections among these representations.	Formalizing Relations and Functions Resources: Glencoe-Algebra 1 Section 1-6 (pgs 38- 44) Pearson-Algebra 1 Section 4-6 (pgs. 268-273) Objectives: SWBA to determine whether a relation is a function. SWBA to Find Domain and range and use function notation. SWBA to represent functions as ordered pairs, tables, graphs and mappings. SWBA to interpret graphs of relations.	Coordinate System Coordinate plane x-and y-axes origin ordered pair x and y coordinates relation domain range independent variable dependent	2.8.A1.C-Identify and represent patterns algebraically and/or graphically. A1.2.1.1-Analyze and/or use patterns or relations. A1.2.1.1.1-Analyze a set of data for the existence of a pattern and represent the pattern algebraically and/or graphically. A1.2.1.1.3-Identify the domain or range of a relation (may be presented as ordered pairs, a graph, or a table).

						variable Function Notation Vertical Line Test	
	Relations and functions are mathematical relationships that can be represented and analyzed using words, tables, graphs, and equations.	How do you decide which functional representation to choose when modeling a real world situation, how would you explain your solution to the problem?	Functions and multiple representations	Represent functions (linear and non-linear) in multiple ways, including tables, algebraic rules, graphs, and contextual situations and make connections among these representations Choose the appropriate functional representation to model a real world situation and solve problems relating to that situation.	Representing Functions Resources: Glencoe-Algebra 1 Section 1-7 (pgs 45- 52) Pearson-Algebra 1 Section 4-3 (pgs 246-251) Section 4-6 (pgs. 268-273) Objectives: SWBA to determine whether a relation is a function. SWBA to find function values SWBA to identify and represent patterns that describe nonlinear functions.	Function Discrete function Continuous function Vertical line test Nonlinear function	2.8.A1.C-Identify and represent patterns algebraically and/or graphically. A1.2.1.1-Analyze and/or use patterns or relations. A1.2.1.1.1-Analyze a set of data for the existence of a pattern and represent the pattern algebraically and/or graphically. A1.2.1.1.2-Determine whether a relation is a function, given a set of points or a graph. A1.2.1.1.3-Identify the domain or range of a relation (may be presented as ordered pairs, a graph, or a table). A1.2.1.2-Interpret and/or use linear functions and their equations, graphs, or tables. A1.2.1.2.1-Create, interpret, and/or use the equation, graph, or table of a linear function. A1.2.1.2.2-Translate from one representation of a linear function to another (i.e., graph, table, and equation).
	Relations and functions are mathematical relationships that can be represented and analyzed using words, tables,	How do you write, solve, graph, and interpret linear equations and inequalities to model	Functions and multiple representations. Linear relationship	Represent functions (linear and non-linear) in multiple ways, including tables,	Linear Functions; Graphing a Function Rule Resources: Glencoe-Algebra 1 Section 3-1 (pgs 153 - 160)	Linear equation Standard form Constant	2.8.A1.C-Identify and represent patterns algebraically and/or graphically. 2.8.A1.D-Demonstrate an understanding and apply properties of functions (domain, range) and characteristics of linear functions.

	graphs, and equations.	relationships between quantities?	s: Equation and inequalities in one and two variables Algebraic properties and processes	algebraic rules, graphs, and contextual situations and make connections among these representations. Choose the appropriate functional representation to model a real world situation and solve problems relating to that situation. Write, solve, graph, and interpret linear equations and inequalities to model relationships between quantities.	Pearson-Algebra 1 Section 4-4 (pgs 253-259) Objectives: SWBA to identify linear equations, intercepts and zeros. SWBA to graph linear equations. SWBA to graph equations that represent functions. **Introduce the concept of ZEROS**	x-intercept y-intercept Zeros Continuous graph Discrete Graph	A1.2.1.2-Interpret and/or use linear functions and their equations, graphs, or tables. A1.2.1.2.1-Create, interpret, and/or use the equation, graph, or table of a linear function. A1.2.1.2.2-Translate from one representation of a linear function to another (i.e., graph, table, and equation).
	Relations and functions are mathematical relationships that can be represented and analyzed using words, tables, graphs, and equations.	How do you write, solve, graph, and interpret linear equations and inequalities to model relationships between quantities?	Functions and multiple representations Linear relationships: Equation and inequalities in one and	Represent functions (linear and non-linear) in multiple ways, including tables, algebraic rules, graphs, and contextual situations and	Arithmetic Sequences as linear Functions Resources: Glencoe Algebra 1 Section 3-5 (pages 187-193) Pearson-Algebra 1 Section 4-7 (pgs 274-281) Section 4-3 (pgs. 246-251)	Sequence Terms Arithmetic sequence Common Difference	2.8.A1.C-Identify and represent patterns algebraically and/or graphically. 2.8.A1.D-Demonstrate an understanding and apply properties of functions (domain, range) and characteristics of linear functions. A1.2.1.2-Interpret and/or use linear functions and their equations, graphs, or tables. A1.2.1.2.1-Create, interpret, and/or

			two variables Algebraic properties and processes	make connections among these representations. Choose the appropriate functional representation to model a real world situation and solve problems relating to that situation. Write, solve, graph, and interpret linear equations and inequalities to model relationships between quantities.	Objectives: SWBA to recognize arithmetic sequences. SWBA to relate arithmetic sequences to linear functions. SWBA to identify and extend patterns in sequence		use the equation, graph, or table of a linear function. A1.2.1.2.2-Translate from one representation of a linear function to another (i.e., graph, table, and equation).
	Review Unit 3 Linear Functions Duration: 1 Day						
Unit 3 **15 Days**	Common Assessment Unit 3 Linear Functions Duration: 1 Day						
Unit 4 Equations of Linear Functions							
Unit 4 **18 Days**	Degree and direction of linear association between two variables is measurable	How do you write, solve, graph, and interpret linear equations and	Analysis of one and two variable (univariate and	Write, solve, graph, and interpret linear equations and inequalities to	Rate of Change and Slope Resources: Glencoe-Algebra 1 Section 3-3 (pgs 170 - 178)	Rate of Change Slope	2.8.A1.D-Demonstrate an understanding and apply properties of functions (domain, range) and characteristics of linear functions. 2.11.A1.B-Describe rates of change

		inequalities to model relationships between quantities?	bivariate) data Algebraic properties and processes	model relationships between quantities.	Pearson-Algebra 1 Section 5-1 (pgs 294-300) Objectives: SWBA to find slope. SWBA to find rates of change from tables. SWBA to use rate of change to solve problems.		as modeled by linear equations. A1.2.2.1-Describe, compute, and/or use the rate of change (slope) of a line. A1.2.2.1.1-Identify, describe, and/or use constant rates of change. A1.2.2.1.2-Apply the concept of linear rate of change (slope) to solve problems.
	Relations and functions are mathematical relationships that can be represented and analyzed using words, tables, graphs, and equations.	How do you decide which functional representation to choose when modeling a real world situation, how would you explain your solution to the problem?	Functions and multiple representations Linear relationships: Equation and inequalities in one and two variables	Represent functions (linear and non-linear) in multiple ways, including tables, algebraic rules, graphs, and contextual situations and make connections among these representation. Choose the appropriate functional representation to model a real world situation and solve problems relating to that situation.	Graphing Equations in Slope-Intercept Form. Resources: Glencoe-Algebra 1 Section 4-1 (pgs 214-221) Pearson-Algebra 1 Section 5-3 (pgs 308-314) Objectives: SWBA to write and graph equations in slope intercept form. SWBA to model real world data with equations in slope intercept form.	Slope-intercept form	2.8.A1.C-Identify and represent patterns algebraically and/or graphically. 2.8.A1.D-Demonstrate an understanding and apply properties of functions (domain, range) and characteristics of linear functions. 2.11.A1.B-Describe rates of change as modeled by linear equations. A1.2.1.2-Interpret and/or use linear functions and their equations, graphs, or tables. A1.2.1.2.1-Create, interpret, and/or use the equation, graph, or table of a linear function. A1.2.2.1-Describe, compute, and/or use the rate of change (slope) of a line. A1.2.2.1.1-Identify, describe, and/or use constant rates of change. A1.2.2.1.2-Apply the concept of linear rate of change (slope) to solve problems. A1.2.2.1.3-Write or identify a linear equation when given: the graph of the line, two points on the line, or the slope and a point on the line. Note: Linear equation may be in point-slope, standard, and/or slope-

							intercept form. A1.2.2.1.4-Determine the slope and/or y-intercept represented by a linear equation or graph.
	Relations and functions are mathematical relationships that can be represented and analyzed using words, tables, graphs, and equations.	How do you write, solve, graph, and interpret linear equations and inequalities to model relationships between quantities?	Functions and multiple representations	Write, solve, graph, and interpret linear equations and inequalities to model relationships between quantities	Writing Equations in Slope-Intercept and Point –Slope Form Resources: Glencoe-Algebra 1 Section 4-2 and 4-3 (pgs 224-236) Pearson-Algebra 1 Section 5-3 (pgs 308-314) Section 5-4 (pgs 315- 320) Objectives: SWBA to write an equation of a line in slope-intercept form given a slope and one point. SWBA to write an equation in slope-intercept form given two points. SWBA to write equations of lines in point-slope form. SWBA to write linear equations in different forms.	Linear extrapolation Point–Slope form	2.8.A1.C-Identify and represent patterns algebraically and/or graphically. 2.8.A1.D-Demonstrate an understanding and apply properties of functions (domain, range) and characteristics of linear functions. 2.11.A1.B-Describe rates of change as modeled by linear equations. A1.2.1.2-Interpret and/or use linear functions and their equations, graphs, or tables. A1.2.1.2.1-Create, interpret, and/or use the equation, graph, or table of a linear function. A1.2.1.2.2-Translate from one representation of a linear function to another (i.e., graph, table, and equation). A1.2.2.1-Describe, compute, and/or use the rate of change (slope) of a line. A1.2.2.1.1-Identify, describe, and/or use constant rates of change. A1.2.2.1.2-Apply the concept of linear rate of change (slope) to solve problems. A1.2.2.1.3-Write or identify a linear equation when given: the graph of the line, two points on the line, or the slope and a point on the line. Note: Linear equation may be in point-slope, standard, and/or slope-intercept form. A1.2.2.1.4-Determine the slope and/or y-intercept represented by a linear equation or graph.

	Relations and functions are mathematical relationships that can be represented and analyzed using words, tables, graphs, and equations.	How do you write, solve, graph, and interpret linear equations and inequalities to model relationships between quantities?	Linear relationships: Equation and inequalities in one and two variables	Write, solve, graph, and interpret linear equations and inequalities to model relationships between quantities	Parallel and Perpendicular Lines Resources: Glencoe-Algebra 1 Section 4-4 (pgs 237-243) Pearson-Algebra 1 Section 5-6 (pgs 330-335) Objectives: SWBA to determine whether lines are parallel perpendicular or neither. SWBA to write an equation of a line that passes through a given point and parallel to given line. SWBA to write an equation of a line that passes through a given point and is perpendicular to a given line.	Parallel lines Perpendicular lines	2.8.A1.C-Identify and represent patterns algebraically and/or graphically. 2.8.A1.D-Demonstrate an understanding and apply properties of functions (domain, range) and characteristics of linear functions. 2.9.A1.A-Use algebraic techniques to determine if two lines are parallel and / or perpendicular. 2.9.A1.C-Use techniques from coordinate geometry to establish properties of lines and 2-dimensional shapes and solids. 2.11.A1.B-Describe rates of change as modeled by linear equations. A1.2.1.2-Interpret and/or use linear functions and their equations, graphs, or tables. A1.2.1.2.1-Create, interpret, and/or use the equation, graph, or table of a linear function. A1.2.1.2.2-Translate from one representation of a linear function to another (i.e., graph, table, and equation). A1.2.2.1-Describe, compute, and/or use the rate of change (slope) of a line. A1.2.2.1.1-Identify, describe, and/or use constant rates of change. A1.2.2.1.2-Apply the concept of linear rate of change (slope) to solve problems. A1.2.2.1.3-Write or identify a linear equation when given: the graph of the line, two points on the line, or the slope and a point on the line. Note: Linear equation may be in point-slope, standard, and/or slope-intercept form.

							A1.2.2.1.4-Determine the slope and/or y-intercept represented by a linear equation or graph.
	Degree and direction of linear association between two variables is measurable	How can we use univariate and bivariate data to analyze relationships and make predictions?	Analysis of one and two variable (univariate and bivariate) data	Display, analyze, and make predictions using univariate and bivariate data.	Scatter Plots and Lines of Fit (Trend Lines) Resources: Glencoe-Algebra 1 Section 4-5 (pgs 245-251) Pearson-Algebra 1 Section 5-7 (pgs 336-343) Objectives: SWBA to write an equation of a trend line and a line of best fit. SWBA to investigate relationships between quantities by points on a scatter plot. SWBA to use lines of fit to make and evaluate predictions.	Bivariate data Scatter plot Line of fit Linear interpolation	2.6.A1.C-Select or calculate the appropriate measure of central tendency, calculate and apply the interquartile range for one-variable data, and construct a line of best fit and calculate its equation for two-variable data. 2.6.A1.E-Make predictions based on lines of best fit or draw conclusions on the value of a variable in a population based on the results of a sample. 2.11.A1.B-Describe rates of change as modeled by linear equations. A1.2.2.2-Analyze and/or interpret data on a scatter plot. A1.2.2.2.1-Draw, identify, find, and/or write an equation for a line of best fit for a scatter plot. A1.2.3.2-Use data displays in problem solving settings and/or to make predictions. A1.2.3.2.2-Analyze data, make predictions, and/or answer questions based on displayed data (box-and-whisker plots, stem-and-leaf plots, scatter plots, measures of central tendency, or other representations). A1.2.3.2.3-Make predictions using the equations or graphs of best-fit lines of scatter plots.

	Review Unit 4 Common Assessment Equations of Linear Functions Duration:1 Day						
Unit 4 **18 Days**	Unit 4 Common Assessment Equations of Linear Functions Duration: 1 Day						
Unit 6 Systems of Linear Equations and Inequalities							
Unit 6 **23 Days**	There are some mathematical relationships that are always true and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities.	How do you write, solve, and interpret systems of two linear equations and inequalities using graphing and algebraic techniques?	Linear system of equations and inequalities	Write, solve, and interpret systems of two linear equations and inequalities using graphing and algebraic techniques	Graphing Systems of Equations Resources: Glencoe Algebra 1 Section 6-1 (pgs 333-339) Pearson-Algebra 1 Section 6-1 (pgs 364-369) Objectives: SWBA to determine the number of solutions a system of linear equations has. SWBA to solve systems of linear equations by graphing.	System of equations Consistent Independent Dependent Inconsistent	2.8.A1.E-Use combinations of symbols and numbers to create expressions, equations, and inequalities in two or more variables, systems of equations, and inequalities, and functional relationships that model problem situations. 2.8.A1.F-Interpret the results of solving equations, inequalities, systems of equations, and systems of inequalities in the context of the situation that motivated the model. A1.1.2.2-Write, solve, and/or graph systems of linear equations using various methods. A1.1.2.2.1-Write and/or solve a system of linear equations (including problem situations) using graphing, substitution, and/or elimination. Note: Limit systems to two linear equations. A1.1.2.2.2-Interpret solutions to problems in the context of the problem situation. Note: Limit systems to two linear equations.
	There are some mathematical relationships that are always true and these relationships	How do you write, solve, and interpret systems of two linear equations and	Linear system of equations and inequalities	Write, solve, and interpret systems of two linear equations and	Solving Systems using Substitution. Resources: Glencoe-Algebra 1 Section 6-2 (pgs 342-347)	Substitution	2.8.A1.E-Use combinations of symbols and numbers to create expressions, equations, and inequalities in two or more variables, systems of equations, and

	are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities.	inequalities using graphing and algebraic techniques?		inequalities using graphing and algebraic techniques	Pearson-Algebra 1 Section 6-2 (pgs 372-384) Objectives: SWBA to solve systems of equations by substitution. SWBA to solve real world-problems involving systems of equations by using substitution.		inequalities, and functional relationships that model problem situations. 2.8.A1.F-Interpret the results of solving equations, inequalities, systems of equations, and systems of inequalities in the context of the situation that motivated the model. A1.1.2.2-Write, solve, and/or graph systems of linear equations using various methods. A1.1.2.2.1-Write and/or solve a system of linear equations (including problem situations) using graphing, substitution, and/or elimination. Note: Limit systems to two linear equations. A1.1.2.2.2-Interpret solutions to problems in the context of the problem situation. Note: Limit systems to two linear equations.
	There are some mathematical relationships that are always true and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities.	How do you write, solve, and interpret systems of two linear equations and inequalities using graphing and algebraic techniques?	Linear system of equations and inequalities	Write, solve, and interpret systems of two linear equations and inequalities using graphing and algebraic techniques	Elimination using Addition and Subtraction Resources: Glencoe-Algebra 1 Section 6-3 (pgs 348-354) Pearson-Algebra 1 Section 6-3 (pgs 378-384) Objectives: SWBA to solve systems of equations elimination with addition. SWBA to solve systems of equations by elimination with subtraction.	Elimination	2.8.A1.E-Use combinations of symbols and numbers to create expressions, equations, and inequalities in two or more variables, systems of equations, and inequalities, and functional relationships that model problem situations. 2.8.A1.F-Interpret the results of solving equations, inequalities, systems of equations, and systems of inequalities in the context of the situation that motivated the model. A1.1.2.2-Write, solve, and/or graph systems of linear equations using various methods. A1.1.2.2.1-Write and/or solve a system of linear equations (including problem situations) using graphing, substitution, and/or elimination.

							Note: Limit systems to two linear equations. A1.1.2.2.2-Interpret solutions to problems in the context of the problem situation. Note: Limit systems to two linear equations.
	Numbers, measures, expressions, equations, and inequalities can represent mathematical situations and structures in many equivalent forms.	How do you write, solve, and interpret systems of two linear equations and inequalities using graphing and algebraic techniques?	Linear system of equations and inequalities	Write, solve, and interpret systems of two linear equations and inequalities using graphing and algebraic techniques	Elimination using Multiplication Resources: Glencoe-Algebra 1 Section 6-4 (pgs 355-360) Pearson-Algebra 1 Section 6-3 (pgs 378-384) Objectives: SWBA to solve systems of equations by elimination with multiplication. SWBA to solve real world-problems involving systems of equations.	Elimination	2.8.A1.E-Use combinations of symbols and numbers to create expressions, equations, and inequalities in two or more variables, systems of equations, and inequalities, and functional relationships that model problem situations. 2.8.A1.F-Interpret the results of solving equations, inequalities, systems of equations, and systems of inequalities in the context of the situation that motivated the model. A1.1.2.2-Write, solve, and/or graph systems of linear equations using various methods. A1.1.2.2.1-Write and/or solve a system of linear equations (including problem situations) using graphing, substitution, and/or elimination. Note: Limit systems to two linear equations. A1.1.2.2.2-Interpret solutions to problems in the context of the problem situation. Note: Limit systems to two linear equations.
	Relations and functions are mathematical relationships that can be represented and analyzed using words, tables, graphs, and equations.	How do you write, solve, and interpret systems of two linear equations and inequalities using graphing and algebraic techniques?	Linear system of equations and inequalities	Write, solve, and interpret systems of two linear equations and inequalities using graphing and algebraic techniques	Systems of Inequalities Resources: Glencoe-Algebra 1 Section 6-8 (pgs 383-386) Pearson-Algebra 1 Section 6-6 (pgs 400-405) Objectives:	Systems of inequalities	2.8.A1.E-Use combinations of symbols and numbers to create expressions, equations, and inequalities in two or more variables, systems of equations, and inequalities, and functional relationships that model problem situations. 2.8.A1.F-Interpret the results of

					SWBA to graph systems of linear inequalities. SWBA to solve systems of linear inequalities by graphing. SWBA to model real-world situations using systems of linear inequalities.		solving equations, inequalities, systems of equations, and systems of inequalities in the context of the situation that motivated the model. A1.1.3.2-Write, solve, and/or graph systems of linear inequalities using various methods. A1.1.3.2.1-Write and/or solve a system of linear inequalities using graphing. Note: Limit systems to two linear inequalities. A1.1.3.2.2-Interpret solutions to problems in the context of the problem situation. Note: Limit systems to two linear inequalities.
	Review Common Assessment Unit 6 Systems of Equations and Inequalities						
Unit 6 **23 Days**	Test Common Assessment Unit 6 Systems of Equations and Inequalities						
Unit 7 Exponents, Exponential Functions and Polynomials							
Unit 7 **36 Days**	There are some mathematical relationships that are always true and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations	How can we show that algebraic properties and processes are extensions of arithmetic properties and processes, and how can we use algebraic properties and	Functions and multiple representations	Use algebraic properties and processes in mathematical situations and apply them to solve real world problems.	Multiplying Monomials Resources: Glencoe-Algebra 1 Section 7-1 (pgs 400-407) Pearson-Algebra 1 Section 7-1 (pgs 418-423) Section 7-2(pgs.425-431) Section 7-3 (pgs. 433-438) Objectives: SWBA to simplify expressions	Monomial constant	2.8.A1.B-Evaluate and simplify not understood algebraic expressions and solve and graph linear equations and inequalities. A1.1.1.3-Use exponents, roots, and/or absolute values to solve problems. A1.1.1.3.1-Simplify/evaluate expressions involving properties/laws of exponents, roots, and/or absolute values to solve problems. Note: Exponents should be integers from

	and inequalities.	processes to solve problems?			involving zero and negative exponents. SWBA to multiply monomials. SWBA to simplify expressions involving monomials		-10 to 10.
	There are some mathematical relationships that are always true and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities.	How can we show that algebraic properties and processes are extensions of arithmetic properties and processes, and how can we use algebraic properties and processes to solve problems?	Algebraic properties and processes	Use algebraic properties and processes in mathematical situations and apply them to solve real world problems.	Dividing Monomials Resources: Glencoe-Algebra 1 Section 7-2(pgs 408 -415) **Selected Examples from 7-3** Pearson-Algebra 1 Section 7-4(pgs 439-452) Objectives: SWBA to find the quotient of two monomials. SWBA to simplify expressions containing negative and zero exponents.	Zero exponents Negative exponent Order of magnitude	2.8.A1.B-Evaluate and simplify not understood algebraic expressions and solve and graph linear equations and inequalities. A1.1.1.3-Use exponents, roots, and/or absolute values to solve problems. A1.1.1.3.1-Simplify/evaluate expressions involving properties/laws of exponents, roots, and/or absolute values to solve problems. Note: Exponents should be integers from -10 to 10.
	There are some mathematical relationships that are always true and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities.	How can we show that algebraic properties and processes are extensions of arithmetic properties and processes, and how can we use algebraic properties and processes to solve problems?	Algebraic properties and processes	Use algebraic properties and processes in mathematical situations and apply them to solve real world problems.	Adding and Subtracting Polynomials Resources: Glencoe-Algebra 1 Section 8-1 (pgs 468 -471) Pearson-Algebra 1 Section 8-1 (pgs 486-491) Objectives: SWBA to classify polynomials SWBA to add polynomials. SWBA to subtract polynomials. Duration: 2 Days	Polynomials	2.8.A1.B-Evaluate and simplify not understood algebraic expressions and solve and graph linear equations and inequalities. A1.1.1.5-Simplify expressions involving polynomials. A1.1.1.5.1-Add, subtract, and/or multiply polynomial expressions (express answers in simplest form). Note: Nothing larger than a binomial multiplied by a trinomial.

	There are some mathematical relationships that are always true and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities.	How can we show that algebraic properties and processes are extensions of arithmetic properties and processes, and how can we use algebraic properties and processes to solve problems?	Algebraic properties and processes	Use algebraic properties and processes in mathematical situations and apply them to solve real world problems.	Multiply a Polynomial by a Monomial Resources: Glencoe-Algebra 1 Section 8-2 (pgs 472 -479) Pearson-Algebra 1 Section 8-2 (pgs 492-496) Section 8-3 (pgs.498-503) Objectives: SWBA to multiply a polynomial by a monomial. SWBA to solve equations involving the products of monomials and polynomials.	Monomial	2.8.A1.B-Evaluate and simplify not understood algebraic expressions and solve and graph linear equations and inequalities. A1.1.1.5-Simplify expressions involving polynomials. A1.1.1.5.1-Add, subtract, and/or multiply polynomial expressions (express answers in simplest form). Note: Nothing larger than a binomial multiplied by a trinomial.
	There are some mathematical relationships that are always true and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities.	How can we show that algebraic properties and processes are extensions of arithmetic properties and processes, and how can we use algebraic properties and processes to solve problems?	Algebraic properties and processes	Use algebraic properties and processes in mathematical situations and apply them to solve real world problems.	Multiply Polynomials Resources: Glencoe Algebra 1 Section 8-3 (pgs 480 -485) Pearson-Algebra 1 Section 8-3 (pgs 498-503) Objectives: SWBA to multiply a polynomial by using the Distributive Property. SWBA to multiply binomials by using the F.O.I.L. method.	FOIL method Quadratic expression	2.8.A1.B-Evaluate and simplify not understood algebraic expressions and solve and graph linear equations and inequalities. A1.1.1.5-Simplify expressions involving polynomials. A1.1.1.5.1-Add, subtract, and/or multiply polynomial expressions (express answers in simplest form). Note: Nothing larger than a binomial multiplied by a trinomial.
	There are some mathematical relationships that are always true and these relationships	How can we show that algebraic properties and processes are	Algebraic properties and processes	Use algebraic properties and processes in mathematical situations and	Special Products Resources: Glencoe-Algebra 1 Section 8-4 (pgs 487 -491)	FOIL method	2.8.A1.B-Evaluate and simplify not understood algebraic expressions and solve and graph linear equations and inequalities. A1.1.1.5-Simplify expressions

	are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities.	extensions of arithmetic properties and processes, and how can we use algebraic properties and processes to solve problems?		apply them to solve real world problems.	Pearson-Algebra 1 Section 8-4 (pgs 504-509) Objectives: SWBA to find the squares of sums and differences. SWBA to find the product of a sum and a difference		involving polynomials. A1.1.1.5.1-Add, subtract, and/or multiply polynomial expressions (express answers in simplest form). Note: Nothing larger than a binomial multiplied by a trinomial.
	Review Common Assessment Unit 7 Exponents, Exponential Functions and Polynomials						
Unit 7 **36 Days**	Test Common Assessment Unit 7 Exponents, Exponential Functions and Polynomials						
Unit 8 Factoring							
Unit 8 **30 Days**	There are some mathematical relationships that are always true and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities.	How can we show that algebraic properties and processes are extensions of arithmetic properties and processes, and how can we use algebraic properties and processes to solve problems?	Algebraic properties and processes	Use algebraic properties and processes in mathematical situations and apply them to solve real world problems.	Factoring and Quadratic Equations Resources GlencoeAlgebra 1 (old) Section 9-1 Glencoe-Algebra 1(2010) Section 8-1(pgs 471 -474) Section 8-2 (pgs.476-482) Pearson-Algebra 1 Section 8-2 (pgs 492-496) Objectives: SWBA to factor monomials. SWBA to find the greatest common factor of monomials. SWBA to find the Least common Multiple.	Factored form Greatest common factor Least Common Multiple	2.1.A1.E-Apply the concepts of prime and composite monomials to determine GCFs (Greatest Common Factor) and LCMs (Least Common Multiple) of monomials. 2.8.A1.B-Evaluate and simplify not understood algebraic expressions and solve and graph linear equations and inequalities. A1.1.1.2-Apply number theory concepts to show relationships between real numbers in problem solving settings. A1.1.1.2.1-Find the Greatest Common Factor (GCF) and/or the Least Common Multiple (LCM) for sets of monomials.
	There are some mathematical	How can we show that	Algebraic properties	Use algebraic properties and	Using the Distributive Property	Factoring	2.8.A1.B-Evaluate and simplify not understood algebraic expressions and

	relationships that are always true and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities.	algebraic properties and processes are extensions of arithmetic properties and processes, and how can we use algebraic properties and processes to solve problems?	and processes	processes in mathematical situations and apply them to solve real world problems.	Resources: Glencoe-Algebra 1 Section 8-2 (pgs 476 -482) Pearson-Algebra 1 Section 8-8 (pgs 529-533) Objectives: SWBA to use the Distributive Property to factor polynomials. SWBA to solve equations of the form ax^2+bx=0.	Factoring by grouping Zero Product Property	solve and graph linear equations and inequalities. A1.1.1.5-Simplify expressions involving polynomials. A1.1.1.5.1-Add, subtract, and/or multiply polynomial expressions (express answers in simplest form). Note: Nothing larger than a binomial multiplied by a trinomial.
	There are some mathematical relationships that are always true and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities.	How can we show that algebraic properties and processes are extensions of arithmetic properties and processes, and how can we use algebraic properties and processes to solve problems?	Algebraic properties and processes	Use algebraic properties and processes in mathematical situations and apply them to solve real world problems.	Quadratic Equations x^2 +bx +c =0 Resources: Glencoe-Algebra 2010 Section 8-3 (pgs 485 -491) Glencoe Algebra 1 (2012) Section 8-6 (pgs. 503-509) Pearson-Algebra 1 Section 8-5 (pgs 512-517) Objectives: SWBA to factor trinomials of the form x^2 +bx +c SWBA to solve equations of the form x^2 +bx +c =0.	Quadratic equation	2.1.A1.E-Apply the concepts of prime and composite monomials to determine GCFs (Greatest Common Factor) and LCMs (Least Common Multiple) of monomials. 2.8.A1.B-Evaluate and simplify not understood algebraic expressions and solve and graph linear equations and inequalities. A1.1.1.2-Apply number theory concepts to show relationships between real numbers in problemsolving settings. A1.1.1.2.1-Find the Greatest Common Factor (GCF) and/or the Least Common Multiple (LCM) for sets of monomials. A1.1.1.5-Simplify expressions involving polynomials. A1.1.1.5.1-Add, subtract, and/or multiply polynomial expressions (express answers in simplest form). Note: Nothing larger than a binomial multiplied by a trinomial.

	There are some mathematical relationships that are always true and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities.	How can we show that algebraic properties and processes are extensions of arithmetic properties and processes, and how can we use algebraic properties and processes to solve problems?	Algebraic properties and processes	Use algebraic properties and processes in mathematical situations and apply them to solve real world problems.	Quadratic Equations ax^2 +bx +c =0 Resources: Glencoe-Algebra 1 2010 Section 8-4 (pgs 493 -498) Glencoe Algebra 1 2012 Section 8-7 (pgs.511-515) Pearson-Algebra 1 Section 8-6 (pgs 518-522) Objectives: SWBA to factor trinomials of the form ax^2 +bx +c SWBA to solve equations of the forma x^2 +bx +c =0.	Quadratic equation	2.1.A1.E-Apply the concepts of prime and composite monomials to determine GCFs (Greatest Common Factor) and LCMs (Least Common Multiple) of monomials. 2.8.A1.B-Evaluate and simplify not understood algebraic expressions and solve and graph linear equations and inequalities. A1.1.1.2-Apply number theory concepts to show relationships between real numbers in problemsolving settings. A1.1.1.2.1-Find the Greatest Common Factor (GCF) and/or the Least Common Multiple (LCM) for sets of monomials. A1.1.1.5-Simplify expressions involving polynomials. A1.1.1.5.1-Add, subtract, and/or multiply polynomial expressions (express answers in simplest form). Note: Nothing larger than a binomial multiplied by a trinomial.
	There are some mathematical relationships that are always true and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities.	How can we show that algebraic properties and processes are extensions of arithmetic properties and processes, and how can we use algebraic properties and processes to solve problems?	Algebraic properties and processes	Use algebraic properties and processes in mathematical situations and apply them to solve real world problems.	Quadratic Equations: Difference of Two Squares Resources: Glencoe-Algebra 1 2010 Section 8-5(pgs 499 -504) Glencoe Algebra 1 2012 Section 8-8 (pgs. 516-521) Pearson-Algebra 1 Section 8-7 (pgs 523-528) Objectives: SWBA to factor binomials that are the difference of two squares. SWBA to use the difference of	Difference of two squares	2.1.A1.E-Apply the concepts of prime and composite monomials to determine GCFs (Greatest Common Factor) and LCMs (Least Common Multiple) of monomials. 2.8.A1.B-Evaluate and simplify not understood algebraic expressions and solve and graph linear equations and inequalities. A1.1.1.2-Apply number theory concepts to show relationships between real numbers in problemsolving settings. A1.1.1.2.1-Find the Greatest Common Factor (GCF) and/or the Least Common Multiple (LCM) for sets of monomials.

					two squares to solve equations.		A1.1.1.5-Simplify expressions involving polynomials. A1.1.1.5.1-Add, subtract, and/or multiply polynomial expressions (express answers in simplest form). Note: Nothing larger than a binomial multiplied by a trinomial.
	There are some mathematical relationships that are always true and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities.	How can we show that algebraic properties and processes are extensions of arithmetic properties and processes, and how can we use algebraic properties and processes to solve problems?	Algebraic properties and processes	Use algebraic properties and processes in mathematical situations and apply them to solve real world problems.	Quadratic Equations: Perfect Squares Resources: Glencoe-Algebra 1 2010 Section 8-6 (pgs 505 -512) Glencoe Algebra 1 2012 Section 8-9 (pgs. 522-5290 Pearson-Algebra 1 Section 8-7 (pgs 523-528) Objectives: SWBA to factor perfect square trinomials. SWBA to solve equations involving perfect square trinomials.	Factoring Factoring by grouping Zero Product Property	2.1.A1.E-Apply the concepts of prime and composite monomials to determine GCFs (Greatest Common Factor) and LCMs (Least Common Multiple) of monomials. 2.8.A1.B-Evaluate and simplify not understood algebraic expressions and solve and graph linear equations and inequalities. A1.1.1.2-Apply number theory concepts to show relationships between real numbers in problem solving settings. A1.1.1.2.1-Find the Greatest Common Factor (GCF) and/or the Least Common Multiple (LCM) for sets of monomials. A1.1.1.5-Simplify expressions involving polynomials. A1.1.1.5.1-Add, subtract, and/or multiply polynomial expressions (express answers in simplest form). Note: Nothing larger than a binomial multiplied by a trinomial.
	There are some mathematical relationships that are always true and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of	How can we show that algebraic properties and processes are extensions of arithmetic properties and processes, and how can we use	Algebraic properties and processes	Use algebraic properties and processes in mathematical situations and apply them to solve real world problems.	Simplifying Rational Expressions Resources: Glencoe-Algebra 1 (2010) Section 11-3(pgs 684 -635) Glencoe Algebra 1 (2012) Section 11-3 (pgs. 690-696)	Rational expression	2.1.A1.B-Use factoring to create equivalent forms of polynomials. 2.8.A1.B-Evaluate and simplify not understood algebraic expressions and solve and graph linear equations and inequalities. A1.1.1.5-Simplify expressions involving polynomials. A1.1.1.5.3-Simplify/reduce a rational algebraic expression.

	expressions and solving equations and inequalities.	algebraic properties and processes to solve problems?			Pearson-Algebra 1 Section 11-1 (pgs 664-669) Objectives: SWBA to identify values excluded from the domain of a rational expression. SWBA to simplify rational expressions.		
	Review Common Assessment Unit 8 Factoring Duration: 1 Day						
Unit 8 **30 Days**	Test Common Assessment Unit 8 Factoring Duration: 1 Day						
Unit 9 Simplifying Radical Expressions							
Unit 9 **23 Days**	There are some mathematical relationships that are always true and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities.	How can we show that algebraic properties and processes are extensions of arithmetic properties and processes, and how can we use algebraic properties and processes to solve problems?	Algebraic properties and processes	Use algebraic properties and processes in mathematical situations and apply them to solve real world problems.	Rational Exponents Resources: Glencoe-Algebra 1 2010 Section 10-2 Extend (Pg618) Glencoe Algebra 1 2012 Section 7-3 (pgs. 408-413) Pearson-Algebra 1 Section 7-5 (pgs 448-452) Objectives: SWBA to simplify radical expressions by using rational exponents.	Rational Exponents	2.1.A1.A-Model and compare values of irrational numbers. 2.2.A1.C-Evaluate numerical expressions that include the four basic operations and operations of powers and roots, reciprocals, opposites, and absolute values. A1.1.1.1-Represent and/or use numbers in equivalent forms (e.g., integers, fractions, decimals, percents, square roots, and exponents). A1.1.1.1.2-Simplify square roots.
	There are some mathematical relationships that	How can we show that algebraic	Algebraic properties and	Use algebraic properties and processes in	Simplifying Radical Expressions Resources:	Radical Expressions	2.1.A1.A-Model and compare values of irrational numbers. 2.2.A1.C-Evaluate numerical

	are always true and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities.	properties and processes are extensions of arithmetic properties and processes, and how can we use algebraic properties and processes to solve problems?	processes	mathematical situations and apply them to solve real world problems.	Glencoe-Algebra 1 (20100 Section 10-2 (pgs 612 -617) Glencoe Algebra 1 (2012) Section 10-2 (pgs. 628-6330 Pearson Algebra 1 Section 10-2 (pgs. 619- 625) Objectives: SWBA to simplify radical expressions by using the Quotient Property of Square Roots. Duration: 3 Days	Rationalizing the Denominator Conjugate	expressions that include the four basic operations and operations of powers and roots, reciprocals, opposites, and absolute values. A1.1.1.1-Represent and/or use numbers in equivalent forms (e.g., integers, fractions, decimals, percents, square roots, and exponents). A1.1.1.1.2-Simplify square roots.
	There are some mathematical relationships that are always true and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities.	How can we show that algebraic properties and processes are extensions of arithmetic properties and processes, and how can we use algebraic properties and processes to solve problems?	Algebraic properties and processes	Use algebraic properties and processes in mathematical situations and apply them to solve real world problems.	Operations with Radical Expressions Resources: Glencoe Algebra 1 (2010) Section 10-3 (pgs 619 -623) Glencoe Algebra 1 (2012) Section 10-3 (pgs. 635-639) Pearson-Algebra 1 Section 10-3 (pgs 626-631) Objectives*:* SWBA to add and subtract radical expressions. SWBA to multiply radical expressions.	Radical Expressions	2.1.A1.A Model and compare values of irrational numbers. 2.2.A1.C Evaluate numerical expressions that include the four basic operations and operations of powers and roots, reciprocals, opposites, and absolute value. A1.1.1 Operations with Real Numbers and Expressions. A1.1.1.1 Represent and/or use numbers in equivalent forms (e.g., integers, fractions, decimals, percents, square roots, and exponents). A1.1.1.1.2 Simplify square roots.
	Review Common Assessment Unit 9 Simplifying Radical Expressions Duration: 1 Day						
Unit 9	Test Common Assessment Unit 9 Simplifying Radical Expressions Duration: 1 Day						

23 Days							
Unit 10 Data Analysis							
Unit 10 **21 days**	Bivariate data can be modeled with mathematical functions that approximate the data well and help us make predictions based on the data.	How can we use univariate and bivariate data to analyze relationships and make predictions?	Analysis of one and two variable (univariate and bivariate) data	Display, analyze, and make predictions using univariate and bivariate data.	Simple Probability and Odds Resources: Glencoe-Algebra 1 Section 0-11 (pgs P33-P36) Pearson-Algebra 1 Section 12-7 (pgs 769-774) Objectives: SWBA to find the probability and odds of simple events. SWBA to find theoretical and experimental probability.	Probability Sample space Equally likely Tree diagram Odds Complements	2.6.A1.A-Design and conduct an experiment using random sampling. A1.2.3.2-Use data displays in problem solving settings and/or to make predictions. A1.2.3.2.1-Estimate or calculate to make predictions based on a circle, line, bar graph, measures of central tendency, or other representations. A1.2.3.2.2-Analyze data, make predictions, and/or answer questions based on displayed data (box-and-whisker plots, stem-and-leaf plots, scatter plots, measures of central tendency, or other representations).
	Bivariate data can be modeled with mathematical functions that approximate the data well and help us make predictions based on the data.	How can we use univariate and bivariate data to analyze relationships and make predictions?	Analysis of one and two variable (univariate and bivariate) data	Display, analyze, and make predictions using univariate and bivariate data.	Mean, Median, Mode, Range and Quartiles Resources: Glencoe-Algebra 1 Section 0-12 (pgs P37-P39) Pearson-Algebra 1 Section 12-3 (pgs 738-744) Objectives: SWBA to calculate the measure of central tendency of a set of data.	Measures of central tendency Mean Median Mode Measures of variation Range Quartiles Lower quartile Upper quartile Measures of	2.6.A1.C Select or calculate the appropriate measure of central tendency, Calculate and apply interquartile range for one variable data, and construct a line A1.2.3 Data Analysis A1.2.3.1 Use measures of dispersion to describe a set of data. A1.2.3.2 Use data displays in problem solving settings and/or to make predictions. A1.2.3.3 Apply probability to practical situations. A1.2.3.1.1 Calculate and/or interpret the range, quartiles and interquartile range of data A1.2.3.2.2 Analyze data, make predictions, and/or answer questions

						dispursion Outlier	based on displayed data (box and whisker plots, stem and leaf plots, scatter plots, measures of central tendency, or other representations). A1.2.3.3.1 Find probabilities for compound events (e.g. find probability of red and blue, find probability of red or blue) and represent as a fraction, decimal or percent.
	Bivariate data can be modeled with mathematical functions that approximate the data well and help us make predictions based on the data.	How can we use univariate and bivariate data to analyze relationships and make predictions?	Analysis of one and two variable (univariate and bivariate) data	Display, analyze, and make predictions using univariate and bivariate data.	Representing Data Resources: Glencoe-Algebra 1 Section 0-13 (pgs P41-P43) Pearson-Algebra 1 Section 12-2 (pgs 732-737) Objectives: SWBA to represent data using different visual displays, including histograms and frequency tables.	Frequency table Bar graph Histogram Line Graph Stem and leaf plot Circle graph Box and whisker plot interquartile range Outliers	2.6.A1.A-Design and conduct an experiment using random sampling. A1.2.3.2-Use data displays in problem solving settings and/or to make predictions. A1.2.3.2.1-Estimate or calculate to make predictions based on a circle, line, bar graph, measures of central tendency, or other representations. A1.2.3.2.2-Analyze data, make predictions, and/or answer questions based on displayed data (box-and-whisker plots, stem-and-leaf plots, scatter plots, measures of central tendency, or other representations).
	Bivariate data can be modeled with mathematical functions that approximate the data well and help	How can we use univariate and bivariate data to analyze relationships and make	Analysis of one and two variable (univariate and bivariate)	Display, analyze, and make predictions using univariate and	Representing Data Resources: Pearson Algebra 1 Section 12-4 (pgs.746-751)	Quartile Interquartile Range Box-and-whisker	2.6.A1.A-Design and conduct an experiment using random sampling. A1.2.3.2-Use data displays in problem solving settings and/or to make predictions. A1.2.3.2.1-Estimate or calculate to

	us make predictions based on the data.	predictions?	data	bivariate data.	Objectives: SWBA to make and interpret data using box-and- whisker plots. SWBA to find quartiles and percentiles.	plot Percentile Percentile Rank	make predictions based on a circle, line, bar graph, measures of central tendency, or other representations. A1.2.3.2.2-Analyze data, make predictions, and/or answer questions based on displayed data (box-and-whisker plots, stem-and-leaf plots, scatter plots, measures of central tendency, or other representations).
	Bivariate data can be modeled with mathematical functions that approximate the data well and help us make predictions based on the data.	How can we use univariate and bivariate data to analyze relationships and make predictions?	Analysis of one and two variable (univariate and bivariate) data	Display, analyze, and make predictions using univariate and bivariate data.	Permutation and Combinations Resources: Glencoe-Algebra 1 (2010) Section 12-4 (pgs 764-770) Glencoe Algebra 1 (2012) Section 12-6 (pgs.786-792) Pearson Algebra 1 Section 12-6 (pgs. 762-768) Objectives: SWBA to use permutations. SWBA to use combinations.		2.7.A1.A-Calculate probabilities for independent, dependent, or compound events. A1.2.3.2-Use data displays in problem solving settings and/or to make predictions. A1.2.3.2.1-Estimate or calculate to make predictions based on a circle, line, bar graph, measures of central tendency, or other representations. A1.2.3.3-Apply probability to practical situations. A1.2.3.3.1-Find probabilities for compound events (e.g., find probability of red and blue, find probability of red or blue) and represent as a fraction, decimal, or percent.
	Bivariate data can be modeled with mathematical functions that approximate the data well and help us make predictions based on the data.	How can we use univariate and bivariate data to analyze relationships and make predictions?	Analysis of one and two variable (univariate and bivariate) data	Display, analyze, and make predictions using univariate and bivariate data.	Probability of Compound Events Resources: Glencoe-Algebra 1 (2010) Section 12-5 (pgs 771-778) Glencoe Algebra 1 Section 12-7 (pgs.793-800) *Objectives:* SWBA to find probabilities of independent and dependent events.	Compound event Independent events Dependent events Mutually exclusive events	2.7.A1.A Calculate probabilities for independent, dependent, or compound events. A1.2.3 Data Analysis A1.2.3.3 Apply probability to practical situations. A1.2.3.3.1 Find probabilities for compound events (e.g. find probability of red and blue, find probability of red or blue) and represent as a fraction, decimal or percent.

					SWBA to find probabilities of mutually exclusive events		
	Review Common Assessment Unit 10 Data Analysis Duration:1 Day						
Unit 10 21 Days	Test Common Assessment Unit 10 Data Analysis Duration: 1 Day						
Unit 11 Preparing for Geometry							
Unit 11 **15 days**	Numbers, measures, expressions, equations, and inequalities can represent mathematical situations and structures in many equivalent forms.	How can you use coordinates and algebraic techniques to represent interpret, and verify geometric relationships?	Concept: Analytic Geometry	Competencies: Use coordinates and algebraic techniques to interpret, represent, and verify geometric relationships	Points, Lines and Planes Resource: Glencoe Geometry (2010) Section 1-1 (pgs 5- 12) Objectives: SWBA to identify and model points, lines and planes. SWBA to identify intersecting lines and planes.	Undefined term Point Line Plane Collinear Coplanar Intersection Definition Defined term Space	G.2.1.2-Solve problems using analytic geometry. G.2.1.2.1-Calculate the distance and/or midpoint between two points on a number line or on a coordinate plane.
	Numbers, measures, expressions, equations, and inequalities can represent mathematical	How can you use coordinates and algebraic techniques to represent interpret, and	Concept: Analytic Geometry	Competencies: Use coordinates and algebraic techniques to interpret,	Linear Measure Resource: Glencoe Geometry (2010) Section 1-2 (pgs 14- 21) Objectives:	Line segment Betweenness of points	G.2.1.2-Solve problems using analytic geometry. G.2.1.2.1-Calculate the distance and/or midpoint between two points on a number line or on a coordinate plane.

	situations and structures in many equivalent forms.	verify geometric relationships?		represent, and verify geometric relationships	SWBA to measure segments. SWBA to calculate with measures.	Between Congruent segments Construction	
	Numbers, measures, expressions, equations, and inequalities can represent mathematical situations and structures in many equivalent forms.	How can you use coordinates and algebraic techniques to represent interpret, and verify geometric relationships?	Analytic Geometry	Use coordinates and algebraic techniques to interpret, represent, and verify geometric relationships	Distance and Midpoint – Resource: Glencoe Geometry (2010) Section 1-3 (pgs 25- 35) – Objectives: SWBA to find the distance between two points. SWBA to find the midpoint of a segment.	Distance Midpoint Segment bisector	G.1.2.1-Recognize and/or apply properties of angles, polygons, and polyhedra. G.1.2.1.2-Identify and/or use properties of quadrilaterals.
	Spatial reasoning and visualization are ways to orient thinking about the physical world.	How can you explain the relationship between congruence and similarity in both 2- and 3-dimensional figures?	2- and 3-dimensional figures	Define, describe, and analyze 2- and 3-dimensional figures, their properties and relationships, including how a change in one measurement will affect other measurements of that figure.	Angle Measure Resource: Glencoe Geometry (2010) Section 1-4 pgs 36 - 44) Objectives: -SWBA to measure and classify angles-SWBA to identify and use congruent angles and the bisector of an angle.	Angle Side Vertex Interior Exterior Degree Right angle Acute angle Obtuse angle Angle bisector	G.2.2.1-Use and/or compare measurements of angles. G.2.2.1.1-Use properties of angles formed by intersecting lines to find the measures of missing angles.

	There are some mathematical relationships that are always true and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities.	How can you use coordinates and algebraic techniques to represent, interpret, and verify geometric relationships?	2- and 3-dimensional figures	Use concepts of congruence and similarity to relate and compare 2- and 3-dimensional figures, including trigonometric ratios.	Pythagorean Theorem and its Converse- Suggested Text-Glencoe Geometry (2010) Section 8-2 (pgs 541 - 551) Objectives: SWBA to use the Pythagorean Theorem. - SWBA to use the Converse of the Pythagorean Theorem.	Pythagorean triple	G.2.1.1-Solve problems involving right triangles. G.2.1.1.1-Use the Pythagorean theorem to write and/or solve problems involving right triangles.
	There are some mathematical relationships that are always true and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities.	How can you use coordinates and algebraic techniques to represent, interpret, and verify geometric relationships?	Trigonometric Ratios	Use concepts of congruence and similarity to relate and compare 2- and 3-dimensional figures, including trigonometric ratios.	Special Right Triangle- Suggested Text-Glencoe Geometry (2010) Section 8-3 (pgs 552 - 560)- Objectives: SWBA to use the properties of 45-45-90 triangle. - SWBA to use the properties of 30-60-90 triangle.	Special Right Triangles	G.2.1.1-Solve problems involving right triangles. G.2.1.1.2-Use trigonometric ratios to write and/or solve problems involving right triangles.
	Review Common Assessment Unit 11 Preparing for Geometry Duration: 1 Day						
Unit 11 15 days	Common Assessment Unit 11 Preparing for Geometry Duration: 1 Day						
	Make Ups, Collect Books and Materials						

During the course of the year, we will have at least 6 days scheduled for the use of the Classroom Diagnostic Tool for this course. Since these dates have not been scheduled, there may need to be adjustment to the day to day schedule when these testing dates are schedules in. Also, there needs to be 4 days build in for the PSSA or Keystone Exams. These 10 days will need to be distributed throughout the year thus totaling 180 instructional days.