Options EHS Applied Math B		Scope and Sequence
Unit	**Lesson**	**Objectives**
Trigonometry		
	Trigonometric Ratios	
		Given an acute angle of a right triangle, label the hypotenuse, opposite, and adjacent sides.
		Given an acute angle of a right triangle, write ratios for sine, cosine, and tangent.
		Relate trigonometric ratios of similar triangles and the acute angles of a right triangle.
	The Unit Circle	
		Determine the coordinates of points on a unit circle using sine and cosine functions
		Sketch a graph of y = sin x and y = cos x
		Identify the properties of the graphs of sine and cosine functions
	Angles and Trigonometric Functions	
		Convert between radian and degree measure.
		Evaluate trigonometric functions.
		Use the unit circle to explain key features of the sine and cosine functions.
		Use trigonometric functions to solve problems.
	Right Triangle Trigonometry	
		Use the Pythagorean theorem, and the trigonometric functions and their inverses to solve right triangles.
		Use special right triangle relationships to solve right triangles.
	Graphing Sine and Cosine	
		Analyze key features of sine and cosine functions from equations and graphs.
	General Form of Sine and Cosine	
		Graph a vertical or horizontal shift of the sine or cosine function.
		Describe the result of a vertical or horizontal shift on the sine or cosine function.

Options EHS Applied Math B		Scope and Sequence
Unit	**Lesson**	**Objectives**
		Interpret key features of a sine or cosine function that models a real-world context.
		Create an appropriate periodic function to model a real-world context.
	Law of Sines	
		Apply the law of sines to solve mathematical and real-world problems.
		Determine whether a triangle has zero, one, or two solutions using the ambiguous case of the law of sines.
	Law of Cosines	
		Apply the law of cosines to solve mathematical and real-world problems.
	Test	
Probability and Statistics		
	Introduction to Probability	
		Interpret probability as the long-run relative frequency of an event.
		Describe the law of large numbers.
		Describe how a simulation is used to imitate a random process.
		Conduct a simulation using a graphing calculator.
	Probability Rules	
		Identify a probability model to describe a random process.
		Apply the basic probability rules, which indicate that the probability of an event is a number between 0 and 1 and that the sum of the probabilities of all outcomes in the sample space is 1.
		Apply the complement rule and the addition rule for mutually exclusive events.
	Experimental Probability	
		Find the experimental probability of an event, expressing it as a ratio.
		Use experimental probability to make predictions.
	Probability of Independent Events	

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Unit	**Lesson**	**Objectives**
		Determine if compound events are independent or dependent.
		Calculate probabilities using tree diagrams or the multiplication rule of independent events
	Probability of Compound Events	
		Find probabilities of independent compound events using organized lists, tables, or tree diagrams.
		Find probabilities of dependent compound events using organized lists, tables, or tree diagrams.
	Probability and Two-Way Tables	
		Construct a two-way table.
		Use a two-way table to determine if two events are independent.
		Compute conditional probabilities from data displayed in a two-way table.
	Geometric Probability	
		Identify the probability of landing in a given region of a geometric figure as impossible, unlikely, likely, or certain.
		Calculate geometric probabilities.
	Conditional Probability	
		Use calculations to determine if two events are independent.
		Calculate conditional probabilities using formulas and Venn diagrams.
		Calculate probabilities of compound events.
	Compound Events and the Fundamental Counting Principle	
		Use the fundamental counting principle to determine the number of possible outcomes.
		Use the fundamental counting principle to determine the probability of compound events.
	Properties of Probability Distributions	
		Identify properties of a probability distribution.

Options EHS Applied Math B		Scope and Sequence
Unit	**Lesson**	**Objectives**
		Create probability distributions from a data set.
		Solve problems using probability distributions.
	Probability with Combinations and Permutations	
		Identify expressions that represent probabilities of compound events.
		Use combinations to compute probabilities of compound events.
		Use permutations to compute probabilities of compound events.
	Simulations	
		Describe the simulation of a binomial probability distribution.
		Describe the simulation of a geometric probability distribution.
	Test	
Geometry		
	Defining Geometric Terms	
		Identify undefined terms of point, line, distance along a line, and distance around a circular arc.
		Use undefined terms to precisely define angle, circle, perpendicular line, and line segment.
	Symmetries in Shapes	
		Identify reflectional symmetry in geometric figures and the number of lines of symmetry.
		Identify rotational symmetry and its order in geometric figures.
	Angles of Geometric Figures	
		Classify angles.
		Use relationships between angles in geometric figures to solve for unknown measures.
		Develop and use formulas for the sums of the interior angles of polygons by decomposing them into triangles.
	Recognizing Patterns	

Options EHS Applied Math B		Scope and Sequence
Unit	**Lesson**	**Objectives**
		Analyze a sequence of numbers to determine the pattern, and identify whether it is arithmetic or geometric.
		Use a recursive rule to calculate a term of a sequence.
		Write a recursive rule for a sequence.
	Scale Drawings	
		Use geometry formulas to solve problems
		Use scale drawings in the problem-solving process
	Slopes of Parallel and Perpendicular Lines	
		Complete the steps to prove the slope criteria for parallel and perpendicular lines using coordinate geometry.
		Determine if two lines are parallel or perpendicular.
		Use slope criteria to find additional points on a line parallel or perpendicular to a given line.
		Prove the slope criteria for perpendicular lines.
	Graphing Proportional Relationships	
		Graph a proportional relationship from tables and verbal descriptions.
		Identify the meanings of points on the graph of a proportional relationship and determine the characteristics of the graph of a proportional relationship.
	Finding a Constant of Proportionality	
		Find the constant of proportionality from verbal descriptions, tables, graphs, and diagrams.
	Equations of Proportional Relationships	
		Identify the constant of proportionality from an equation.
		Write an equation to represent a proportional relationship.

Options EHS Applied Math B		Scope and Sequence
Unit	**Lesson**	**Objectives**
		Translate between tables, graphs, and equations to represent proportional relationships.
	Direct Variation	
		Recognize equivalent forms of the direct variation statement
		Determine the constant of proportionality in a direct variation problem
		Solve direct variation problems
	Test	
Cumulative Exam		
	Cumulative Exam Review	
	Cumulative Exam	