## BFMS 8<sup>th</sup> Grade Advanced Math - Alg I Scope and Sequence

Module 1 Trimester 1	Module 2 <i>Trimester 1</i>	Module 3 Trimester 2	Module 4 <i>Trimester 2</i>	Module 5 Trimester 2	Module 6 Trimester 2
Expressions	Equations in 1 Variable	Relations & Functions	Linear & Nonlinear Functions	Creating Linear Equations	Linear Inequalities
Approx. 15 Days	Approx. 15 Days	Approx. 12 Days	Approx. 15 Days	Approx. 12 Days	Approx. 11 Days
Write and evaluate numerical and algebraic expressions.	Solve linear equations in one variable.	Represent relations, and determine whether a relation is a function.	Graph linear, piecewise-defined, step, and absolute value functions.	Create linear equations in slope-intercept, point-slope, and standard forms.	Write and solve linear inequalities.
Simplify expressions using the Distributive Property.	Solve proportions.	Use function notation, and find function values.	Find and interpret the rate of change and slope of lines.	Use scatter plots to make and evaluate predictions, and use best-fit lines and correlation coefficients to determine how well linear functions fit sets of data.	Graph linear inequalities in two variables.
Evaluate absolute value expressions.	Use formulas to solve real-world problems.	Graph linear and nonlinear functions, and identify their attributes.	Identify the effects of transformations on the graphs of linear and absolute value functions.	Determine whether a situation illustrates correlation or causation.	Apply linear inequalities in problem-solving situations.
				Find inverses of functions.	

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Module 7 <i>Trimester 2/</i> 3	Module 8 Trimester 3	Module 9 <i>Trimester</i> 3	Module 10 <i>Trimester 3</i>	Module 11 <i>Trimester 3</i>	Module 12 As time allows
Systems of Linear Equations & Inequalities	Exponents & Roots	Exponential Functions	Polynomials	Quadratic Functions	Statistics
Approx. 11 days	Approx. 16 days	Approx. 15 days	Approx. 16 days	Approx 18 days	Approx. 12 days
Solve systems of equations using a variety of methods.	Apply the properties of exponents to simplify expressions.	Write and solve exponential functions.	Add, subtract, and multiply polynomials.	Graph quadratic functions and their transformations.	Represent data using numerical statistics and graphical methods.
Solve systems of equations using graphing technology	Simplify radical expressions.	Graph and transform exponential functions.	Factor polynomials, including in the case of special products.	Solve quadratic equations using a variety of methods.	Analyze the shapes of distributions.
Graph the solution sets of systems of linear inequalities.	Solve exponential equations.	Understand geometric sequences.	Understand how polynomials are related to special products.	Solve systems of linear and quadratic equations.	Summarize and interpret categorical data using frequency tables.