## BFMS $8^{\text {th }}$ Grade Advanced Math - Alg I Scope and Sequence

| Module 1 | Module 2 | Module 3 | Module 4 | Module 5 | Module 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Trimester 1 | Trimester 1 | Trimester 2 | Trimester 2 | Trimester 2 | Trimester 2 |
| Expressions | Equations in 1 <br> Variable |  <br> Functions |  <br> Nonlinear <br> Functions | Creating Linear <br> Equations | Linear Inequalities |
| Approx. 15 <br> Days | Approx. 15 Days | Approx. 12 Days | Approx. 15 Days | Approx. 12 Days | Approx. 11 Days |
| Write and evaluate <br> numerical and <br> algebraic <br> expressions. | Solve linear <br> equations in one <br> variable. | Represent relations, <br> and determine <br> whether a relation is <br> a function. | Graph linear, <br> piecewise-defined, <br> step, and absolute <br> value functions. | Create linear equations in <br> slope-intercept, <br> point-slope, and standard <br> forms. | Write and solve linear |
| inequalities. |  |  |  |  |  |

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| Module 7 <br> Trimester 2/3 | Module 8 <br> Trimester 3 | Module 9 <br> Trimester 3 | Module 10 <br> Trimester 3 | Module 11 <br> Trimester 3 | Module 12 <br> As time allows |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Systems of Linear Equations \& Inequalities | Exponents \& Roots | Exponential Functions | Polynomials | Quadratic Functions | Statistics |
| $\begin{gathered} \text { Approx. } 11 \\ \text { days } \end{gathered}$ | 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. |

