Function & Modeling Scope & Sequence

Scope & Sequence

Functions & Modeling		
#	Unit name	Approximate # of instructional days
1	**Equations and inequalities** *Writing Expressions *Interpreting Expressions *Understanding Solving Equations *Solving Equations *Writing Inequalities *Solving Inequalities *Solutions to Linear Inequalities *Representing Solutions to Linear Inequalities *Writing and Graphing Linear Inequalities *Systems of Linear Inequalities #1 *Systems of Equations *Solving Systems of Equation Using Elimination *Systems of Linear Inequalities #2 *Solutions to Systems of Equations *Systems of Linear Inequalities #3	19
2	**Linear and exponential functions** *Exploring representations of arithmetic sequences *Exploring representations of geometric sequences *Arithmetic sequences #1 *Geometric sequences #1 *Arithmetic sequences #2 *Geometric sequences #2 *Explicit and recursive equations of sequences *Finding missing terms of sequences *Defining a function *Identifying functions *Intro to linear and exponential functions *Defining linear and exponential functions *Rates of change in linear and exponential functions *Distinguishing between linear and exponential functions *Comparing linear and exponential functions *Interpreting linear and exponential functions *Representations of linear and exponential functions (optional) *Interpreting linear and exponential functions #2 *Solving exponential functions (optional)	27
3	**Quadratic Relationships and solving quadratic equations** *Understanding Quadratic Patters *Quadratic Patterns vs. Linear Patterns *Identifying Quadratic Functions *Understanding Quadratic Functions *Rate of Change in Quadratic Functions *Comparing Rate of Change in Different Types of Functions *Multiple Representations of Quadratic Functions *Transformations of Quadratic Functions *Vertex form of a Quadratic Function	32

	*Completing the Square *Graphing Parabolas Using Completing the Square *Factoring Quadratic Functions *Connecting Different Forms of Quadratic	
4	**Exponential & Polynomial and functions** *Experimenting with Exponents *Radicals and Exponents *Properties of Exponents *Converting between exponents and radicals *Using the Quadratic Formula *Solving Quadratic Equations *Complex Numbers *Working with Real and Complex Numbers *Comparing Growth Rates of Different Types of Functions *End Behavior *Arithmetic with Polynomials *Applying Fundamental Theorem of Algebra *Using Remainder Theorem *Polynomial Functions	35
	Total	