Key Concepts	Standards	
		Analyze the structure of binomials, trinomials, and other polynomials in order to rewrite equivalent expre
	A1.ASE.3*	Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression. a. Find the zeros of a quadratic function by rewriting it in equivalent factored form and explain the connection between the zeros of the function, its linear factors, the x-intercepts of its graph, and the solutions to the corresponding quadratic equation.
Building Functions		The student will:
	A1.FBF.3*	Describe the effect of the transformations $f(x) + k$, $f(x + k)$, $kf(x)$, $f(kx)$, and combinations of such transformations on the graph of $y = f(x)$ for any real number k. Find the value of k given the graphs and write the equation of a transformed parent function given its graph. (Limit to linear; quadratic; exponential with integer exponents; vertical shift and vertical stretch.)

Interpreting Functions	The student will:	
	A1.FIF.1*	Extend previous knowledge of a function to apply to general behavior and features of a function. a. Understand that a function from one set (called the domain) to another set (called the range) assig each element of the domain exactly one element of the range. b. Represent a function using function notation and explain that $f(x)$ denotes the output of function f that corresponds to the input x. c. Understand that the graph of a function labeled f is the set of all ordered pairs (x, y) that satisfy the equation $y = f(x)$.
	A1.FIF.2*	Evaluate functions and interpret the meaning of expressions involving function notation from a mathematica perspective and in terms of the context when the function describes a verbal situation.
	A1.FIF.4*	Interpret key features of a function that models the relationship between two quantities when given in graphical or tabular form. Sketch the graph of a function from a verbal description showing key feature include intercepts; intervals where the function is increasing, decreasing, constant, positive, or negative; re maximums and minimums; symmetries; end behavior and periodicity. (Limit to linear; quadratic; exponer
	A1.FIF.5*	Relate the domain and range of a function to its graph and, where applicable, to the quantitative relations describes.(Limit to linear; quadratic; exponential.)
	A1.FIF.6*	Given a function in graphical, symbolic, or tabular form, determine the average rate of change of the func over a specified interval. Interpret the meaning of the average rate of change given in a context. (Limit to linear; quadratic; exponential.)
	A1.FIF.7*	Graph functions from their symbolic representations. Indicate key features including intercepts; intervals the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior and periodicity. Graph simple cases by hand and use technology for complicated cases. (Limit to linear; quadratic; exponential only in the form $y = a^x + c$)
	A1.FIF.8*	Translate between different but equivalent forms of a function equation to reveal and explain different proper of the function. (Limit to linear; quadratic; exponential.) (Note: A1.FIF.8a is not a Graduation Standard.) a. Use the process of factoring and completing the square in a quadratic function to show zeros, extre values, and symmetry of the graph, and interpret these in terms of a context.
	A1.FIF.9*	Compare properties of two functions given in different representations such as algebraic, graphical, tabul verbal. (Limit to linear; quadratic; exponential.)
Linear, Quadratic, and Exponential	The student will:	
	A1.FLQE.1*	Distinguish between situations that can be modeled with linear functions or exponential functions by reco situations in which one quantity changes at a constant rate per unit interval as opposed to those in which a quantity changes by a constant percent rate per unit interval. (Note: A1.FLQE.1a is not a Graduation Standard) a. Prove that linear functions grow by equal differences over equal intervals and that exponential func grow by equal factors over equal intervals.
	A1.FLQE.2*	Create