**Chapter 3 Exponential and Logarithmic Functions**

**3.1 Exponential Functions**

* I can evaluate, analyze, and graph exponential functions.
* I can solve problems involving exponential growth and decay.
* I can describe transformations of exponential functions based off of a parent function.

**3.2 Logarithmic Functions**

* I can evaluate expressions involving logarithms.
* I can sketch and analyze graphs of logarithmic functions.
* I can apply properties of logarithms to simplify equations and expressions.
* I can use logarithms to solve real-world problems.

**3.3 Properties of Logarithms**

* I can apply properties of logarithms to re-write equations and expressions.
* I can apply the Change of Base Formula.
* I can expand, condense, and simplify logarithms.
* I can use the Change of Base Formula and apply it to real-world situations.

**3.4 Exponential and Logarithmic Equations**

* I can apply the One-to-One Property of Exponential Functions to solve equations.
* I can apply the One-to-One Property of Logarithmic Functions to solve equations.
* I can solve functions in logarithmic terms.
* I can solve exponential equations in quadratic form.
* I can determine if a solution is extraneous.

**3.5 Modeling with Nonlinear Regression**

* I can model data using exponential, logarithmic, and logistic functions.
* I can linearize and analyze data.
* I can create a scatterplot and determine which model best fits the data.