Missouri Mathematics Priority Standards

# Algebra II

## Number and Quantity

**B Use complex numbers.** A2.NQ.B

7 Know and apply the Fundamental Theorem of Algebra. A2.NQ.B.7

## Seeing Structure in Expressions

**A Define and use logarithms.** A2.SSE.A

4 Understand why logarithmic scales are used, and use them to solve problems. A2.SSE.A.4

## Reasoning with Equations and Inequalities

**A Solve equations and inequalities.** A2.REI.A

1 Create and solve equations and inequalities, including those that involve absolute value. A2.REI.A.1

**B Solve general systems of equations and inequalities.** A2.REI.B

3 Create and solve systems of equations that may include non-linear equations and inequalities. A2.REI.B.3

## Arithmetic with Polynomials and Rationals

**A Perform operations on polynomials and rational expressions.** A2.APR.A

2 Understand the Remainder Theorem and use it to solve problems. A2.APR.A.2

## Interpreting Functions

**A Use and interpret functions.** A2.IF.A

1 Identify and interpret key characteristics of functions represented graphically, with tables and with algebraic symbolism to solve problems. A2.IF.A.1

## Building Functions

**A Create new functions from existing functions.** A2.BF.A

1 Create new functions by applying the four arithmetic operations and composition of functions (modifying the domain and range as necessary). A2.BF.A.1

3 Describe the effects of transformations algebraically and graphically, creating vertical and horizontal translations, vertical and horizontal reflections and dilations (expansions/compressions) for linear, quadratic, cubic, square and cube root, absolute value, exponential and logarithmic functions. A2.BF.A.3

## Function Modeling

**A Use functions to model real-world problems.** A2.FM.A

1 Create functions and use them to solve applications of quadratic and exponential function model problems. A2.FM.A.1

**Data and Statistics**

**A** **Make inferences and justify conclusions.** A2.DS.A

2 Determine whether a specified model is consistent with a given data set. A2.DS.A.2

4 Use data from a sample to estimate characteristics of the population and recognize the meaning of the margin of error in these estimates. A2.DS.A.4

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**B** **Fit a data set to a normal distribution.** A2.DS.B

8 Know and use the characteristics of normally distributed data sets; predict what percentage of the data will be above or below a given value that is a multiple of standard deviations above or below the mean. A2.DS.B.8