1st Quarter Standards:

Student Performance Indicators

EA-2.1 Exemplify elements of the real number system (including integers, rational numbers, and irrational numbers).

EA-2.4 Use dimensional analysis to convert units of measure within a system.

EA-2.5 Carry out a procedure using the properties of real numbers (including commutative, associative, and distributive) to simplify expressions.

EA-2.6 Carry out a procedure to evaluate an expression by substituting a value for the variable.

EA-2.9 Carry out a procedure to perform operations with matrices (including addition, subtraction, and scalar multiplication).

EA-2.10 Represent applied problems by using matrices.

EA-3.1 Classify a relationship as being either a function or not a function when given data as a table, set of ordered pairs, or graph.

EA-3.2 Use function notation to represent functional relationships.

EA-3.3 Carry out a procedure to evaluate a function for a given element in the domain.

EA-3.7 Carry out a procedure to solve literal equations for a specified variable.

EA-3.8 Apply proportional reasoning to solve problems.

EA-4.7 Carry out procedures to solve linear equations for one variable algebraically.

EA-4.8 Carry out procedures to solve linear inequalities for one variable algebraically and then to graph the solution.

EA-5.9 Analyze given information to write a linear function that models a given problem situation.

EA-5.12 Analyze given information to write a linear inequality in one variable that models a given problem situation.

2nd Quarter Standards

Student Performance Indicators

EA-2.1 Exemplify elements of the real number system (including integers, rational numbers, and irrational numbers).

EA-3.4 Analyze the graph of a continuous function to determine the domain and range of the function.

EA-4.1 Carry out a procedure to write an equation of a line with a given slope and a y-intercept.

EA-4.2 Carry out a procedure to write an equation of a line with a given slope passing through a given point.

EA-4.3 Carry out a procedure to write an equation of a line passing through two given points.

EA-4.4 Use a procedure to write an equation of a trend line from a given scatterplot.

EA-4.5 Analyze a scatterplot to make predictions.

EA-4.6 Represent linear equations in multiple forms (including point-slope, slope-intercept, and standard).

EA-5.1 Carry out a procedure to graph a line when given the equation of the line.

EA-5.3 Carry out a procedure to graph the line with a given slope and a y-intercept.

EA-5.4 Carry out a procedure to graph the line with a given slope passing through a given point.
Algebra 1 Standards

**EA-5.5** Carry out a procedure to determine the x-intercept and y-intercept of lines from data given tabularly, graphically, symbolically, and verbally.

**EA-5.6** Carry out a procedure to determine the slope of a line from data given tabularly, graphically, symbolically, and verbally.

**EA-5.8** Analyze the equations of two lines to determine whether the lines are perpendicular or parallel.

**EA-5.10** Analyze given information to determine the domain and range of a linear function in a problem situation.

**3rd Quarter Standards:**

**Student Performance Indicators**

**EA-2.1** Exemplify elements of the real number system (including integers, rational numbers, and irrational numbers).

**EA-2.2** Apply the laws of exponents and roots to solve problems.

**EA-2.3** Carry out a procedure to perform operations (including multiplication and division) with numbers written in scientific notation.

**EA-2.7** Carry out a procedure (including addition, subtraction, multiplication, and division by a monomial) to simplify polynomial expressions.

**EA-3.6** Classify a variation as either direct or inverse.

**EA-4.9** Carry out a procedure to solve systems of two linear equations graphically.

**EA-4.10** Carry out a procedure to solve systems of two linear equations algebraically.

**EA-5.2** Analyze the effects of changes in the slope, \( m \), and the y-intercept, \( b \), on the graph of \( y = mx + b \).

**EA-5.7** Apply the concept of slope as a rate of change to solve problems.

**EA-5.11** Analyze given information to write a system of linear equations that models a given problem situation.

**4th Quarter Standards:**

**Student Performance Indicators**

**EA-2.1** Exemplify elements of the real number system (including integers, rational numbers, and irrational numbers).

**EA-2.8** Carry out a procedure to factor binomials, trinomials, and polynomials by using various techniques (including the greatest common factor, the difference between two squares, and quadratic trinomials).

**EA-3.5** Carry out a procedure to graph parent functions (including \( xy = x \), \( y = x^2 \), \( y = x \), and \( y = 1 \)).

**EA-6.1** Analyze the effects of changing the leading coefficient \( a \) on the graph of \( y = ax^2 \).

**EA-6.2** Analyze the effects of changing the constant \( c \) on the graph of \( y = x^2 + c \).

**EA-6.3** Analyze the graph of a quadratic function to determine its equation.

**EA-6.4** Carry out a procedure to solve quadratic equations by factoring.
EA-6.5 Carry out a graphic procedure to approximate the solutions of quadratic equations.

EA-6.6 Analyze given information to determine the domain of a quadratic function in a problem situation.