

## <u>Algebra 1</u>

#### Semester A Summary:

In this course, the student will gain a foundational understanding of the real number system, expressions, equations, and inequalities. Throughout the course, problem solving, critical thinking, and real-world application of mathematical concepts will be required. The student will solve simple and multi-step equations and inequalities; and will represent those solutions graphically. In addition, students will explore linear functions and represent those functions on the coordinate plane. Finally, the student will solve systems of linear equations and inequalities and represent those solutions graphically.

## Semester A Outline

#### 1. Course Introduction

- 1. Course Overview
- 2. Student Course Introduction Quick Check

#### 2. Algebra Basics

- 1. Algebra Basics Unit Introduction
  - In this unit, you will learn about specific types of numbers and their properties when operations are used on them. You will also extend this knowledge into learning about algebraic statements.
- 2. Sums of Real Numbers
  - In this section, you will explain why the sum of two numbers that can be written as a simple fraction is a rational number and the sum of a rational number and a number that cannot be written as a simple fraction is an irrational number.
- 3. Sums of Real Numbers Quick Check
- 4. Products of Real Numbers
  - In this section, you will explain why the product of two numbers that can each be written as a simple fraction is a rational number and the product of a non-zero number that can be written as a simple fraction and a number that cannot be written as a simple fraction is an irrational number.
- 5. Products of Real Numbers Quick Check
- 6. Parts of an Expression
  - In this section, you will interpret parts of an expression, such as terms, factors, and numbers used to multiply a variable.
- 7. Parts of an Expression Quick Check
- 8. Interpreting an Expression
  - In this section, you will interpret complicated expressions by viewing one or more of their parts as a single item.
- 9. Interpreting an Expression Quick Check
- 10. Structure of an Expression

- In this section, you will use the structure of a numerical expression to identify ways to rewrite it.
- 11. Structure of an Expression Quick Check
- 12. Algebra Basics Apply
- 13. Algebra Basics Online Practice
- 14. Algebra Basics Review
- 15. Algebra Basics Sample Work
- 16. Algebra Basics Test

# 3. Solving Linear Equations

- 1. Solving Linear Equations Introduction
  - In this unit, you will learn how to model with and solve linear equations of one variable, use units properly in application problems, convert units, solve 'literal' equations, and identifying the proper unit of measure for a given context. Sometimes you will use all of these distinct concepts in one problem.
- 2. Solve a Linear Equation
  - In this section, you will solve a linear equation and justify each step.
- 3. Solve a Linear Equation Quick Check
- 4. Linear Equations in One Variable
  - In this section, you will create linear equations, each written in one variable, to solve problems.
- 5. Linear Equations in One Variable Quick Check
- 6. Use Equations to Solve Problems
  - In this section, you will use linear equations, each written in one variable, to solve problems.
- 7. Use Equations to Solve Problems Quick Check
- 8. Solving Multi-Step Problems
  - In this section, you will use units to guide the solution of multi-step problems.
- 9. Solving Multi-Step Problems Quick Check
- 10.Accurate Answers
  - In this section, you will choose a level of accuracy appropriate to the limitations on a measurement when reporting quantities.
- 11. Accurate Answers Quick Check
- 12.Isolating a Variable
  - In this section, you will solve equations with numbers used to multiply variables represented by letters for a specified quantity.
- 13.Isolating a Variable Quick Check
- 14.Units in Formulas
  - In this section, you will choose and interpret units consistently in formulas.
- 15.Units in Formulas Quick Check
- 16.Solving Linear Equations Apply
- 17. Solving Linear Equations Online Practice
- 18. Solving Linear Equations Review
- 19. Solving Linear Equations Sample Work
- 20.Solving Linear Equations Unit Test

# 4. Functions

- 1. Functions Introduction
- 2. Identifying Functions
  - In this section, you will identify whether a relation is a function by determining if each value from one set matches each value in another set in

such a way that each element of the domain pairs with exactly one element of the range.

- 3. Identifying Functions Quick Check
- 4. Function Representations
  - In this section, you will use the standard way of writing a function and a table that has pairs of values, that are put into and are calculated from a function, to represent a function and identify the graph of the function.
- 5. Functions Representations Quick Check
- 6. Graphs of Functions
  - In this section, you will relate the domain of a function to its graph and, where applicable, to the measurable or countable relationship it describes.
- 7. Graphs of Functions Quick Check
- 8. Evaluating and Interpreting Functions
  - In this section, you will use a standard way of writing a function, evaluate functions for values put in their domains, and interpret statements that use the standard way of writing the function with regards to a situation.
- 9. Evaluating and Interpreting Functions Quick Check
- 10.Sequences
  - In this section, you will describe sequences as functions, sometimes using previous terms to define the current terms, whose domain is the set of whole numbers.
- 11.Sequences Quick Check
- 12. Relationships Between Quantities
  - In this section, you will use an expression where one variable is defined in terms of the other, a process using the previous term to define the current term, and steps for calculation to describe a relationship between two quantities.
- 13. Relationships Between Quantities Quick Check
- 14.Rate of Change from an Equation
  - In this section, you will calculate and interpret the average rate of change of a function presented symbolically over a specified interval.
- 15.Rate of Change from an Equation Quick Check
- 16.Rate of Change from a Table
  - In this section, you will calculate and interpret the average rate of change of a function presented as a table over a specified interval.
- 17.Rate of Change from a Table Quick Check
- 18.Rate of Change from a Graph
  - In this section, you will estimate the rate of change from a graph.
- 19.Rate of Change from a Graph Quick Check
- 20.Functions Apply
- 21 Functions Portfolio
- 22. Functions Review Online Practice
- 23. Functions Review
- 24.Functions Sample Work
- 25.Functions Unit Test

# 5. Graphing Linear Equations

- 1. Graphing Linear Equations Introduction
  - In this unit, you will learn how to graph linear equations, identify their x- and y-intercepts, and interpret key features of graphs in terms of their quantities.
- 2. Graphs of Linear Equations
  - In this section, you will graph linear equations with labels and scales and describe the graph as the set of all its plotted solutions.

- 3. Graphs of Linear Equations Quick Check
- 4. Key Features of Linear Graphs
  - In this section, you will interpret key features of graphs in terms of the quantities, for a function that models a linear relationship between two quantities.
- 5. Key Features of Linear Graphs Quick Check
- 6. Linear Functions
  - In this section, you will sketch the graph showing key features, given a verbal description of the relationship between two quantities that can be modeled with a linear function.
- 7. Linear Functions Quick Check
- 8. Graphs and Their Intercepts
  - In this section, you will graph linear functions and show intercepts.
- 9. Graphs and Their Intercepts Quick Check
- 10.Interpreting Linear Functions
  - In this section, you will interpret the terms that describe a linear function with regards to a situation.
- 11.Interpreting Linear Functions Quick Check
- 12. Graphing Linear Equations Apply
- 13. Graphing Linear Equations Online Practice
- 14. Graphing Linear Equations Review
- 15. Graphing Linear Equations Sample Work
- 16.Graphing Linear Equations Test

#### 6. Writing Linear Functions

- 1. Writing Linear Functions Introduction
- 2. Linear Equations in Two Variables
  - In this section, you will create linear equations in two or more variables to represent relationships between quantities.
- 3. Linear Equations in Two Variables Quick Check
- 4. Modeling with Linear Equations
  - In this section, you will represent, in a modeling situation, linear equations that have limits. You will interpret solutions as being possible or not possible.
- 5. Modeling with Linear Equations Quick Check
- 6. Linear Functions from a Graph
  - In this section, you will construct linear functions given a graph.
- 7. Linear Functions from a Graph Quick Check
- 8. Linear Functions from a Description
  - In this section, you will construct linear functions given a description of a relationship.
- 9. Linear Functions from a Description Quick Check
- 10.Linear Functions from a Table
  - In this section, you will construct linear functions given two pairs of values that are put into and calculated by the function, a table, or an arithmetic sequence.
- 11.Linear Functions from a Table Quick Check
- 12.Writing Linear Functions Apply
- 13. Writing Linear Functions Online Practice
- 14.Writing Linear Functions Review
- 15.Writing Linear Functions Sample Work
- 16.Writing Linear Functions Unit Test

#### 7. Linear Inequalities

1. Linear Inequalities Introduction

- In this unit, you will learn to write, manipulate, solve, and interpret linear inequalities as they appear in math and in real life. First, you will complete five lessons, then you will apply what you learned to solve a problem. At the end, you will take a quiz.
- 2. Linear Inequalities in One Variable
  - In this section, you will create linear inequalities in one variable.
- 3. Linear Inequalities in One Variable Quick Check
- 4. Solving Linear Inequalities
  - In this section, you will solve linear inequalities in one variable.
- 5. Solving Linear Inequalities Quick Check
- 6. Using Linear Inequalities
  - In this section, you will use linear inequalities in one variable to solve problems.
- 7. Using Linear Inequalities Quick Check
- 8. Graphs of Linear Inequalities
  - In this section, you will graph the solutions to a linear inequality in two variables.
- 9. Graphs of Linear Inequalities Quick Check
- 10.Modeling with Linear Inequalities
  - In this section, you will represent, in a modeling situation, linear inequalities that are limited and interpret the solutions as possible or not possible.
- 11. Modeling with Linear Inequalities Quick Check
- 12.Linear Inequalities Apply
- 13.Linear Inequalities Review Online Practice
- 14.Linear Inequalities Review
- 15.Linear Inequalities Sample Work
- 16.Linear Inequalities Unit Test

## 8. Linear Systems

- 1. Linear Systems Introduction
- 2. Solving Systems by Graphing
  - In this section, you will approximate the solutions of where the graphs of two equations intersect.
- 3. Solving Systems by Graphing Quick Check
- 4. Interpreting Solutions of Systems
  - In this section, you will use the x-coordinate of the point where two functions intersect to show that the point of intersection is where one function equals the other.
- 5. Interpreting Solutions of Systems Quick Check
- 6. Solving Systems with Substitution
  - In this section, you will solve a pair of linear equations in two variables using substitution.
- 7. Solving Systems With Substitution Quick Check
- 8. Manipulating Systems of Equations
  - In this section, you will demonstrate that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions.
- 9. Manipulating Systems of Equations Quick Check
- 10.Modeling with Systems of Equations
  - In this section, you will represent, in a modeling context, systems of linear equations that are limited and interpret the solutions as possible or not possible.
- 11.Modeling With Systems of Equations Quick Check

- 12. Solving Systems with Elimination
  - In this section, you will solve a pair of linear equations in two variables using elimination.
- 13.Solving Systems with Elimination Quick Check
- 14.Graphs of Systems of Inequalities
  - In this section, you will graph the solution set to a system of linear inequalities in two variables.
- 15.Graphs of Systems of Inequalities Quick Check
- 16.Modeling with Systems of Inequalities
  - In this section, you will represent, in a modeling context, systems of linear inequalities that are limited and interpret the solutions as possible or not possible.
- 17. Modeling With Systems of Inequalities Quick Check
- 18.Linear Systems Apply
- 19.Linear Systems Online Practice
- 20.Linear Systems Review
- 21.Linear Systems Sample Work
- 22.Linear Systems Test
- 9. Exploring More Functions
  - 1. Exploring More Functions Introduction
    - In this unit, you will be learning about graphing absolute value, step, square root, and cube root functions; the effect on the graph of replacing a function, f(x), by f(x)+k, f(x+k), f(kx), and kf(x) for specific values of k; interpreting parameters given context; and sketching a graph from a verbal description of the relationship of two quantities. First, you will complete nine lessons. Then, you will apply what you learned to solve a problem. Lastly, you will take a quiz.
  - 2. Absolute Value Functions
    - In this section, you will sketch a graph showing key features and interpret key features in terms of the quantities. Your sketch will be based on a verbal description of the relationship between two quantities that can be modeled with a function that is based on more than one equation, called a piecewisedefined (absolute value) function.
  - 3. Absolute Value Functions Quick Check
  - 4. Step Functions
    - In this section, you will sketch a graph showing key features and interpret key features in terms of the quantities. Your sketch will be based on a verbal description of the relationship between two quantities that can be modeled with a function that is based on more than one equation, called a piecewisedefined (step) function.
  - 5. Step Functions Quick Check
  - 6. Graphs of Piecewise Functions
    - In this section, you will graph functions that are based on more than one equation (piecewise-defined functions), including step functions and absolute value functions.
  - 7. Graphs of Piecewise Functions Quick Check
  - 8. Graph Transformations
    - In this section, you will experiment and identify the effect on the graph of certain changes in the formula of a function.
  - 9. Graph Transformations Quick Check
  - 10.Determining Transformations
    - In this section, you will determine the value of k by interpreting graphs.

- 11.Determining Transformations Quick Check
- 12.Square Root Functions
  - In this section, you will sketch a graph showing key features and interpret key features in terms of the quantities, given a verbal description of the relationship between two quantities that can be modeled with a square root function.
- 13.Square Root Functions Quick Check
- 14. Graphs of Square Root Functions
  - In this section, you will graph square root functions.
- 15.Graphs of Square Root Functions Quick Check
- 16.Cube Root Functions
  - In this section, you will sketch the graph showing key features and interpret key features in terms of the quantities, given a verbal description of the relationship between two quantities that can be modeled with a cube root function.
- 17.Cube Root Functions Quick Check
- 18.Graphs of Cube Root Functions
  - In this section, you will graph cube root functions.
- 19. Graphs of Cube Root Functions Quick Check
- 20.Exploring More Functions Apply
- 21.Exploring More Functions Portfolio
- 22. Exploring More Functions Online Practice
- 23. Exploring More Functions Review
- 24.Exploring More Functions Sample Work
- 25.Exploring More Functions Unit Test

#### 10.Semester Review and Test

- 1. Algebra 1 A Semester Online Practice
- 2. Algebra 1 A Semester Review
- 3. Algebra 1 A Semester Exam

## Semester B Summary:

In this course, the student will gain a foundational understanding of polynomials, quadratic equations, exponentials, modeling with equations and statistical concepts. The student will use their knowledge of real number operations, expressions, equations, inequalities, and functions to solve operations with polynomials, quadratic equations, exponential functions and will represent those solutions graphically. In addition, the student will explore inferential and descriptive statistical concepts such as graphing, analyzing and interpret bivariate data, plots, histograms, calculating and comparing mean and standard deviation, data distribution, association and trends. Throughout the course, problem solving, critical thinking, and real-world application of mathematical concepts will be required.

## Semester B Outline

#### 1. Course Introduction

- 1. Course Overview
- 2. Student Course Introduction Quick Check

#### 2. Polynomials

1. Polynomials Introduction

- In this unit, you will learn about using operations on certain types of polynomials. You will also see the connection between simplification and factoring and how these apply to polynomials.
- 2. Adding and Subtracting Polynomials
  - In this section, you will add and subtract expressions that consist of at least two algebraic terms.
- 3. Adding and Subtracting Polynomials Quick Check
- 4. Multiplying Polynomials
  - In this section, you will multiply expressions that consist of at least two algebraic terms.
- 5. Multiplying Polynomials Quick Check
- 6. Operations with Polynomials
  - In this section, you will describe expressions that consist of at least two algebraic terms as a system that is closed under the operations of addition, subtraction, and multiplication. That is, such expressions result in similar expressions when they undergo these operations.
- 7. Operations with Polynomials Quick Check
- 8. Factoring Quadratic Expressions
  - In this section, you will factor an expression in which the variable with the largest exponent is 2, and this variable is multiplied by 1.
- 9. Factoring Quadratic Expressions Quick Check
- 10. More Factoring Quadratic Expressions
  - In this section, you will factor an expression in which the variable with the largest exponent is 2, and this variable is not multiplied by 1.
- 11. More Factoring Quadratic Expressions Quick Check
- 12. Writing Equivalent Expressions
  - In this section, you will use the structure of special cases of expressions in which the variable with the largest exponent is 2 to rewrite an equivalent expression.
- 13.Writing Equivalent Expressions Quick Check
- 14. Polynomials Apply
- 15. Polynomials Online Practice
- 16.Polynomials Review
- 17.Polynomials Sample Work
- 18. Polynomials Unit Test

## 3. Solving Quadratics

- 1. Solving Quadratics Introduction
  - In this unit, you will learn how to apply factoring to solve quadratic equations. You will also see how this logic is used to interpret quadratic inequalities.
- 2. Quadratic Equations in One Variable
  - In this section, you will create quadratic equations (equations in which the variable with the largest exponent is 2) that only have one variable.
- 3. Quadratic Equations in One Variable Quick Check
- 4. Problem Solving with Quadratics
  - In this section, you will use quadratic equations in one variable to solve problems.
- 5. Problem Solving with Quadratics Quick Check
- 6. Solving Quadratics by Factoring
  - In this section, you will solve a quadratic equation by factoring.
- 7. Solve Quadratics by Factoring Quick Check
- 8. Solving Quadratics Algebraically

- In this section, you will solve a quadratic equation in one variable that is most efficiently solved by inspection or taking the square root.
- 9. Solving Quadratics Algebraically Quick Check
- 10.Completing the Square
  - In this section, you will solve a quadratic equation with the variable x by completing the square to transform the equation into the form  $(x-p)^2=q$ .
- 11.Completing the Square Quick Check
- 12. The Quadratic Formula
  - In this section, you will derive the quadratic formula. You will also solve a quadratic equation in one variable that is most efficiently solved by using the quadratic formula.
- 13. The Quadratic Formula Quick Check
- 14. Choosing the Best Method
  - In this section, you will determine how to construct an argument that works to justify a solution method involving a simple quadratic equation.
- 15. Choosing the Best Method Quick Check
- 16.Quadratic Inequalities in One Variable
  - In this section, you will create quadratic inequalities in one variable.
- 17. Quadratic Inequalities in One Variable Quick Check
- 18. Problems with Quadratic Inequalities
  - In this section, you will use quadratic inequalities in one variable to solve problems.
- 19. Problems with Quadratic Inequalities Quick Check
- 20.Solving Quadratics Apply
- 21. Solving Quadratics Online Practice
- 22.Solving Quadratics Review
- 23.Solving Quadratics Sample Work
- 24.Solving Quadratics Unit Test

## 4. Graphing Quadratics

- 1. Graphing Quadratics Introduction
  - In this unit, you will learn how to graph quadratic equations, identify their zeros, and identify and interpret key features of graphs in terms of the quantities. First you will complete eight lessons. Then you will apply what you learned to solve a problem. Lastly you will take a quiz.
- 2. Using Zeros to Create Graphs
  - In this section, you will use the zeros of an expression that consists of at least two algebraic terms to construct a rough graph of the function defined by the expression when you are able to factor it in a suitable way. Zeros are values of the variable that result in the value of the expression equaling zero.
- 3. Using Zeros to Create Graphs Quick Check
- 4. Factor to Analyze Graphs
  - In this section, you will use the process of factoring in a quadratic function to show zeros, extreme values, and symmetry of the graph.
- 5. Factor to Analyze Graphs Quick Check
- 6. Complete the Square to Analyze Graphs
  - In this section, you will use the process known as completing the square in a quadratic function to show zeros, extreme values, and symmetry of the graph.
- 7. Complete the Square to Analyze Graphs Quick Check
- 8. Quadratic Functions

- In this section, you will sketch the graph showing key features when you are given a verbal description of the relationship between two quantities that can be modeled with a quadratic function.
- 9. Quadratic Functions Quick Check
- 10.Vertex Form of Quadratic Functions
  - In this section, you will graph quadratic functions and show intercepts and maximum and minimum points of the function. You will do this by using the vertex form of the function, which quickly identifies its minimum and maximum points.
- 11.Vertex Form of Quadratic Functions Quick Check
- 12.Graphs of Quadratic Equations
  - In this section, you will graph quadratic equations on coordinate axes with labels and scales.
- 13.Graphs of Quadratic Equations Quick Check
- 14.Key Features of Quadratic Graphs
  - In this section, you will interpret key features of graphs, in terms of the quantities, for a function that models a quadratic relationship between two quantities.
- 15.Key Features of Quadratic Graphs Quick Check
- 16.Quadratic Equations in Two Variables
  - In this section, you will create quadratic equations in two or more variables to represent relationships between quantities.
- 17. Quadratic Equations in Two Variables Quick Check
- 18. Graphing Quadratics Apply
- 19. Graphing Quadratics Online Practice
- 20.Graphing Quadratics Review
- 21.Graphing Quadratics Sample Work
- 22.Graphing Quadratics Test

# 5. Exponentials

- 1. Exponentials Introduction
- 2. Properties of Exponents
  - In this section, you will use the properties of exponents to transform expressions for exponential functions.
- 3. Properties of Exponents Quick Check
- 4. Key Features of Exponential Graphs
  - In this section, you will interpret key features of graphs, in terms of the quantities, for a function (with domains in the whole numbers) that models an exponential relationship between two quantities.
- 5. Key Features of Exponential Graphs Quick Check
- 6. Exponential Functions
  - In this section, you will sketch a graph showing key features when given a verbal description of the relationship between two quantities that can be modeled with an exponential function (with domains in the integers).
- 7. Exponential Functions Quick Check
- 8. Interpreting Exponential Functions
  - In this section, you will interpret the terms that describe an exponential function with respect to a situation.
- 9. Interpreting Exponential Functions Quick Check
- 10.Exponential Equations in Two Variables
  - In this section, you will create exponential equations in two or more variables to represent relationships between quantities.
- 11.Exponential Equations in Two Variables Quick Check

- 12. Graphs of Exponential Equations
  - In this section, you will graph exponential equations on coordinate axes with labels and scales.
- 13.Graphs of Exponential Equations Quick Check
- 14.Exponentials Apply
- 15.Exponentials Online Practice
- 16.Exponentials Review
- 17.Exponentials Sample Work
- 18.Exponentials Unit Test

## 6. Mathematical Models

- 1. Mathematical Models Introduction
- 2. Comparing Function Representations
  - In this section, you will compare properties of two functions each represented in a different way.
- 3. Comparing Function Representations Quick Check
- 4. Examining Linear Growth
  - In this section, you will prove that linear functions grow by equal differences over equal intervals and explain how a specific linear function's growth relates to this proof.
- 5. Examining Linear Growth Quick Check
- 6. Examining Exponential Growth
  - In this section, you will prove that exponential functions grow by equal factors over equal intervals and explain how a specific exponential function's growth relates to this proof.
- 7. Examining Exponential Growth Quick Check
- 8. Using Linear and Exponential Models
  - In this section, you will distinguish between situations that can be modeled with linear and exponential growth.
- 9. Using Linear and Exponential Models Quick Check
- 10.Comparing Growth Models
  - In this section, you will use graphs and tables to estimate the value of an exponential function when it exceeds a given function, such as a linear or quadratic function, that consists of at least two algebraic terms.
- 11.Comparing Growth Models Quick Check
- 12.Mathematical Models Apply
- 13.Mathematical Models Portfolio
- 14. Mathematical Models Online Practice
- 15.Mathematical Models Review
- 16.Mathematical Models Sample Work
- 17. Mathematical Models Unit Test

## 7. Analyzing Bivariate Data

- 1. Analyzing Bivariate Data Introduction
  - In this unit, you will learn strategies for analyzing the relationship between two variables and how to recognize linear and non-linear relationships. First, you will complete eleven lessons. Then, you will apply what you learned to solve a problem. Lastly, you will take a quiz.
- 2. Interpreting Graphs and Data Displays
  - In this section, you will choose and interpret the scale and the origin in graphs and data displays.
- 3. Interpreting Graphs and Data Displays Quick Check
- 4. Descriptive Modeling

- In this section, you will define appropriate quantities for the purpose of descriptive modeling.
- 5. Descriptive Modeling Quick Check
- 6. Scatter Plots: Linear Data
  - In this section, you will represent linear data on two measurable or countable variables on a scatter plot and describe how the variables are related.
- 7. Scatter Plots: Linear Data Quick Check
- 8. Interpreting Slope and Intercepts
  - In this section, you will interpret the slope and intercept of a linear model with respect to the data.
- 9. Interpreting Slope and Intercepts Quick Check
- 10.Scatter Plots: Quadratic Data
  - In this section, you will represent quadratic data on two measurable or countable variables on a scatter plot and describe how the variables are related.
- 11.Scatter Plots: Quadratic Data Quick Check
- 12.Scatter Plots: Exponential Data
  - In this section, you will represent exponential data (with domains in the whole numbers) on two measurable or countable variables on a scatter plot and describe how the variables are related.
- 13.Scatter Plots: Exponential Data Quick Check
- 14. Finding a Linear Regression Equation
  - In this section, you will fit a linear function to a data set.
- 15. Finding a Linear Regression Equation Quick Check
- 16.Using a Linear Regression Equation
  - In this section, you will use a fitted linear function to solve problems with respect to the data.
- 17.Using a Linear Regression Equation Quick Check
- 18.Residuals
  - In this section, you will informally assess the fit of a function by plotting and analyzing the vertical distances between the fitted line and the plotted y-values.
- 19.Residuals Quick Check
- 20.Correlation Coefficient
  - In this section, you will use technology to compute a number that describes how well a fitted line fits the data. You will also interpret this number.
- 21.Correlation Coefficient Quick Check
- 22.Correlation and Causation
  - In this section, you will distinguish between two different types of relationships between data.
- 23.Correlation and Causation Quick Check
- 24. Analyzing Bivariate Data Apply
- 25. Analyzing Bivariate Data Portfolio
- 26. Analyzing Bivariate Data Online Practice
- 27. Analyzing Bivariate Data Review
- 28.Analyzing Bivariate Data Sample Work
- 29. Analyzing Bivariate Data Unit Test

# 8. Descriptive Statistics

- 1. Descriptive Statistics Introduction
  - In this section, you will distinguish between two different types of relationships between data.
- 2. Dot Plots and Histograms

- In this section, you will represent data with two methods to display frequency distributions.
- 3. Dot Plots and Histograms Quick Check
- 4. Box Plots
  - In this section, you will represent the distribution of data with box plots.
- 5. Box Plots Quick Check
- 6. Mean and Standard Deviation
  - In this section, you will compare the mean and the standard deviation of two or more data sets.
- 7. Mean and Standard Deviation Quick Check
- 8. Median and IQR
  - In this section, you will compare the middle value and middle part of the range of two or more data sets.
- 9. Median and IQR Quick Check
- 10.Center and Spread
  - In this section, you will determine and describe the appropriate numerical analysis that should be used to compare the center and spread of two or more data sets.
- 11.Center and Spread Quick Check
- 12.Comparing Data Distributions
  - In this section, you will interpret differences in shape, center, and spread with respect to the data sets, accounting for data points that differ significantly from others.
- 13.Comparing Data Distributions Quick Check
- 14.Two-Way Frequency Tables
  - In this section, you will summarize data in categories for two categories in two-way frequency tables.
- 15.Two-Way Frequency Tables Quick Check
- 16.Relative Frequency
  - In this section, you will interpret relative frequencies in two-way frequency tables in the conditions surrounding the data.
- 17. Relative Frequency Quick Check
- 18.Data Associations and Trends
  - In this section, you will recognize possible associations and trends for data in categories in two-way frequency tables.
- 19.Data Associations and Trends Quick Check
- 20.Descriptive Statistics Apply
- 21. Descriptive Statistics Review Online Practice
- 22. Descriptive Statistics Review
- 23. Descriptive Statistics Sample Work
- 24 Descriptive Statistics Unit Test

# 9. Semester Review and Test

- 1. Algebra 1 Semester B Review Online Practice
- 2. Semester Review
- 3. Algebra 1 Semester B Semester Exam