

# CHAPTER 3

## Linear Functions

# Linear Functions

## 3.1 Rate of Change and Slope

### Content Objective:

Students will find rates of change from tables.  
Students will find the slope of the line

## 3.2 Direct Variation

### Content Objective:

Students will write and graph an equation of a direct variation

## 3.3 Slope-Intercept Form

### Content Objective:

Students will write linear equations using slope-intercept form.  
Students will graph linear equations in slope-intercept form.

## 3.4 Point-Slope Form

### Content Objective:

Students will write and graph linear equations using point-slope form.

## 3.5 Standard Form

### Content Objective:

Students will graph linear equations using intercepts.  
Students will write equations in Standard Form.

## 3.6 Slope of Parallel and Perpendicular Lines

### Content Objective:

Students will determine whether lines are parallel, perpendicular, or neither.  
Students will determine if the graphs of two lines are parallel or perpendicular without graphing the lines.

## 3.7 Graphing Absolute Value Functions

### Content Objective:

Students will graph an absolute value function.  
Students will translate the graph of an absolute value function.

# CHAPTER 4

**Systems of Equations**

**and**

**Inequalities**

# **Systems of Equations and Inequalities**

## **4.1 Solving System by Graphing**

### **Content Objective:**

Students will solve a system of linear equations by graphing.

## **4.2 Solving System Using Substitution**

### **Content Objective:**

Students will solve system of equations using substitution.

## **4.3 Solving System Using Elimination**

### **Content Objective:**

Students will solve a system by subtracting or adding to eliminate a variable.

## **4.4 Applications of Linear Systems**

### **Content Objective:**

Students will choose the best method for solving a system of linear equation.

## **4.5 Linear Inequalities**

### **Content Objective:**

Students will Graph linear inequalities in two variables

Students will use linear inequalities when modeling real-world situations.

## **4.6 System of Linear Inequalities**

### **Content Objective:**

Students will solve systems of linear inequalities by graphing.

Students will model rea-world situations using system of linear inequalities.

# CHAPTER 5

Exponential

And

Radical Functions

# Exponential and Radical Functions

## 5.1 Zero and Negative Exponent

### Content Objective:

Students will simplify expressions involving zero and negative exponents

## 5.2 Exponential Functions

### Content Objective:

Students will evaluate and graph exponential functions.

Students will graph and exponential model with a vertical shift.

## 5.3 Comparing Linear and Exponential Functions

### Content Objective:

Students will compare properties of linear and exponential functions.

Students will investigate rates of change

## 5.4 Exponential Growth and Decay

### Content Objective:

Students will model exponential growth and decay functions.

## 5.5 Solving Exponential Equations

**Content Objective:** Students will solve exponential equations.

## 5.6 Geometric Sequences

### Content Objective:

Students will write and use recursive and explicit formulas for geometric sequences.

## 5.7 Combining Functions

### Content Objective:

Students will add, subtract, multiply, and divide linear and exponential functions

## 5.8 Simplifying Radicals

### Content Objective:

Students will simplify radicals involving products and quotients

## 5.9 Radical and Piecewise Functions

### Content Objective:

Students will understand properties of radical and piecewise functions