**9.1 Simplifying Radical Expressions**

Objective 1: Convert between radical form and exponential form

Objective 2: Know the product property for radicals

Objective 3: Simplify radical expressions

Objective 4: Know the meaning of radical function, square root function, radical model, and square root model

Objective 5: Use a radical model to make an estimate or prediction

**9.2 Adding, Subtracting, and Multiplying Radical Expressions**

Objective 1: Add, subtract, and multiply radical expressions

Objective 2: Know the power property for radicals

Objective 3: Simplify the square of a radical expression with two terms

**9.3 Rationalizing Denominators and Simplifying Quotients of Radical Expressions**

Objective 1: Rationalize the denominator of a radical expression

Objective 2: Simplify a radical expression

Objective 3: Know the quotient property for radicals

**9.4 Graphing and Combining Square Root Functions**

Objective 1: Know the graphical significance of $a, h, $and $k$ for a square root function of the form $y=a\sqrt{x-h}+k$

Objective 2: Sketch the graphs of square root functions and identify the domain and range

Objective 3: Find the sum function, difference function, product function, and quotient function of two square root functions.

**9.5 Solving Radical Equations**

Objective 1: Solve radical equations

Objective 2: Find the x-intercepts of square root functions

Objective 3: Use a radical model to make predictions about the independent variable

**9.6 Modeling with Square Root Functions**

Objective 1: Find an equation of a square root curve that contains two given points

Objective 2: Find an equation of a square root model

Objective 3: Use a square root model to make estimates and predictions