Coreq Support for Section 5.3

Topic 1: Evaluating Logarithmic Expressions

Recall from section 5.2 that the expression $\log_b x$ is the exponent to which b must be raised to in order to get x.

Topic 2: Solving Quadratic Equations by Factoring and by Using the Square Root Property

Topic 3: Solving Rational Equations

Recall from section 1.1 that a rational equation is an equation consisting of one or more rational expressions with any other expressions of the equation being polynomials. Here are some examples of rational equations.

$$\frac{1}{x} = 7 \qquad \frac{2}{x-5} = -3 \qquad x^{-1} = \frac{1}{4}$$

To solve a rational equation multiply both sides of the equation by the LCD. Remember to check for extraneous solutions.

Topic 4: Solving Radical Equations of the Form $\sqrt[n]{x} = c$

To solve a radical equation of the form $\sqrt[n]{x} = c$ raise each side of the equation to the appropriate power to eliminate the radical. When the index of the radical is even, be sure to check for extraneous solutions.