10.4-10.7 Study Guide
Quiz Study Guide

10.4: Use Square Roots to Solve Quadratic Equations:

- Be able to solve a quadratic equation using square roots

Solve the following quadratic equations.

Ex: $4x^2 - 400 = 0$

Ex: $3z^2 - 18 = -18$

Ex: $3x^2 - 35 = 45 - 2x^2$

Ex: $11\left(\dfrac{w-7}{2}\right)^2 - 20 = 101$

10.6: Solve Quadratic Equations by the Quadratic Formula:

- Be able to solve quadratic equations by using the quadratic formula

Solve:

Ex: $x^2 + 5x - 104 = 0$

Ex: $4t^2 - 3t = 5 - 3t^2$

Ex: $x^2 - 8x = -16$ **Ex:** $(x + 13)^2 = 25$

10.7: Interpret the Discriminant:

-   Be able to identify the value of the discriminant and use it to determine the number of
    solutions to a quadratic equation.

Identify the value of the discriminant then tell whether the equation has *two solutions, one solution*, or *no solution*.

Ex: $x^2 + x + 1 = 0$ **Ex:** $-2x^2 + 8x - 4 = 0$

Ex: $-3g^2 - 4g = \dfrac{4}{3}$ **Ex:** $10 = x^2 - 5x$