

Notes 10

Name \_\_\_\_\_

Solving Quadratic Equations by Completing the Square (10.5)

Prior Knowledge: Factor.

A)  $x^2 - 10x + 25$

B)  $x^2 + 16x + 64$

Prior Knowledge: Solve for  $x$ .

C)  $x - 5 = \pm\sqrt{48}$

D)  $x + 7 = \pm\sqrt{81}$

Key Terms: Get to know these terms extremely well!!!

- Completing the Square –

Coefficient of  $x^2$  IS 1: Solve the equation by completing the square.

1)  $x^2 - 6x + 4 = 0$

2)  $x^2 + 8x - 18 = 0$

3)

4)

**Coefficient of  $x^2$  IS NOT 1:** Solve the equation by completing the square.

5)  $6x^2 - 72x = 60$

6)  $3x^2 - 30x + 18 = 0$

**Solving Quadratic Equations:** Solve the quadratic equation using factoring, square roots, or completing the square.

7)  $x^2 - 8x = 2x - 15$

8)  $4(x+8)^2 = 144$

9)  $x^2 - 12x = -20$

10)  $x^2 - 4x - 8 = 0$