

Name: _____ Hour: _____ Date: _____

NOTES: Section 10.5 & 10.6 – Factoring $x^2 + bx + c$ and Factoring $ax^2 + bx + c$

Goals: #1 - I can factor trinomials in the form $x^2 + bx + c$



#2 - I can factor trinomials in the form $ax^2 + bx + c$

#3 - I can solve quadratic equations by factoring

Homework: Section 10.5-6 Worksheet

Notes:

To factor a _____, it will be the product of two _____.

We look for _____ numbers that multiply to _____ and add to _____.

$$ax^2 + bx + c$$

EXAMPLE: Factor the trinomial.

$$x^2 + 6x + 8$$

Name: _____ Hour: _____ Date: _____

Example #1: Factor the trinomial.

1. $x^2 - 5x + 6$

2. $x^2 - 11x - 12$

You practice: Factor the trinomial.

1. $x^2 + 17x - 18$

2. $x^2 + 2x - 8$

EXAMPLE: Factor the trinomial.

$$2x^2 + 11x + 5$$

Name: _____ Hour: _____ Date: _____

Example #2: Factor the trinomial.

1. $6x^2 - 19x + 15$

2. $6x^2 + 2x - 4$

You practice: Factor the trinomial.

1. $2x^2 + 5x + 2$

2. $6x^2 - 14x + 4$

Name: _____ Hour: _____ Date: _____

To solve a quadratic equation, we could _____ or use the _____.

Another way to solve a _____ equation, is by _____.

- First, we set the equation equal to _____.
- _____!
- Use the _____ to solve for the variable.

Example #3: Solve the quadratic equation by factoring.

1. $x^2 - 3x = 10$

2. $-3 = 2x^2 + 7x$

You practice: Solve the quadratic equation by factoring.

1. $-4 = x^2 - 5x$

2. $4x^2 + 7x = -3$