

Name: _____ Hour: _____ Date: _____

NOTES: Section 10.7 – Factoring Special Products

Goals: #1 - I can factor the difference of two square binomials



#2 - I can solve quadratic equations by factoring

Homework: Section 10.7 Worksheet

Warm Up:

1. Factor the trinomial.

a. $x^2 - x - 20$

b. $8y^2 - 26y + 15$

2. Solve the equation by factoring.

a. $x^2 - 17x + 30 = 0$

b. $6x^2 + 19x - 10 = -20$

Exploration #1: Multiply the binomials.

1. $(x - 3)(x + 3)$

2. $(4x - 5)(4x + 5)$

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Similar to our special product patterns, there are special _____ patterns.

- _____:

$$a^2 - b^2 =$$

Example:

Example #1: Factor the expression.

1. $x^2 - 4$

2. $9q^2 - 64$

You practice: Factor the expression.

1. $m^2 - 9$

2. $4p^2 - 25$

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Example #2: Factor the expression.

1. $50 - 98x^2$

2. $2x^2 - 32$

You practice: Factor the expression.

1. $18x^2 - 128$

2. $1000 - 10m^2$

Example #3: Solve the equation by factoring.

1. $x^2 - 36 = 0$

2. $2x^2 - 32 = 0$

You practice: Solve the equation by factoring.

1. $25x^2 - 4 = 0$

2. $3x^2 - 27 = 0$