Name:_____ Hour: _____ Date: _____

NOTES: Section 11.5 Adding and Subtracting with Like Denominators.

Goals: #1 - I can add and subtract rational expressions with like denominators.

Homework: Section 11.5 Worksheet   😎 😬 😢

Warm Up:

1. Find the product of the rational expression and simplify.

    a. $\dfrac{4x}{3x^2} \cdot \dfrac{6x^3}{2x}$

    b. $\dfrac{x-1}{2x+2} \cdot \dfrac{4}{3x-3}$

2. Find the quotient of the rational expression and simplify.

    a. $\dfrac{3(2x+1)}{2x-8} \div \dfrac{8x+4}{3(x-4)}$

    b. $\dfrac{5x^2+14x-3}{5x^2-x} \div (4x+12)$

Exploration #1: Work with a partner and add the following fractions.

1. $\dfrac{3}{5} + \dfrac{1}{5}$

2. $\dfrac{2}{3} + \dfrac{2}{3}$

3. $\dfrac{1}{4} + \dfrac{3}{4}$

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Notes:

As with _____, to _____ or _____

rational expressions with _____ denominators, _____

their _____ and keep the common _____.

Example #1: Add the rational expression and simplify.

1. $\dfrac{5}{2x} + \dfrac{x-5}{2x}$

2. $\dfrac{2x}{x^2 + 2x + 1} + \dfrac{2}{x^2 + 2x + 1}$

You practice: Add the rational expression and simplify.

1. $\dfrac{x+2}{x} + \dfrac{3x-2}{x}$

2. $\dfrac{a^2 - 2}{a^2 - 25} + \dfrac{4a - 3}{a^2 - 25}$

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Example #2: Subtract the rational expression and simplify.

1. $\dfrac{x+2}{x^2+5} - \dfrac{3x+2}{x^2+5}$

2. $\dfrac{4x}{3x^2-x-2} - \dfrac{x-2}{3x^2-x-2}$

You practice: Subtract the rational expression and simplify.

1. $\dfrac{3x-4}{x-4} - \dfrac{2x}{x-4}$

2. $\dfrac{1-x}{2x^2-7x+5} - \dfrac{3-3x}{2x^2-7x+5}$