

LESSON 8.1 Assignment

8

Name _____ Date _____

There Must Be a Rational Explanation
Adding and Subtracting Rational Expressions

1. Consider the rational expressions $\frac{3y}{4}$, $\frac{x}{3}$, and $\frac{5y}{6}$.
- a. Rewrite each expression such that they all have a common denominator.

b. Calculate $\frac{3y}{4} - \frac{x}{3} + \frac{5y}{6}$. List any restrictions on the variables.

2. Consider the rational expressions $\frac{2}{2x-4}$ and $\frac{5}{x^2-4}$.
- a. Rewrite each expression such that they have a common denominator.

b. Calculate $\frac{2}{2x-4} - \frac{5}{x^2-4}$. List any restrictions on the variable.

8

LESSON 8.1 Assignment

page 2

3. Consider the rational expressions $\frac{60 - 3x}{x^2 + x - 20}$ and $\frac{3x + 9}{x + 3}$.
- a. Rewrite each expression such that they have a common denominator.
- b. Calculate $\frac{60 - 3x}{x^2 + x - 20} + \frac{3x + 9}{x + 3}$. List any restrictions on the variable.
4. Calculate $\frac{2}{2x^2 + 7x + 3} - \frac{x}{x^2 - 2x - 15} + 1$. List any restrictions on the variable.