Adding/Subtracting Rationals Rational Student: Date:

1. Warm Up: Simplify the following rational expressions by adding/subtracting.

a. $\frac{1}{7} + \frac{3}{7}$

b. $\frac{2}{5} + \frac{3}{10}$

c. $\frac{1}{x+2} + \frac{2}{x+2}$

d. $\frac{2}{x+2} + \frac{2}{x^2-4}$

2. Why do fractions have to have common denominators to add/subtract together?

3. Simplify then state the asymptote(s) $\frac{2}{x+3} - \frac{5}{x^2+7x+12}$

You Try: Simplify by adding/subtracting, then state the asymptotes of the result.

4. $\frac{4x}{x+5} - \frac{x-3}{2x-7}$

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

6. $\frac{x^2-2x+3}{x^2+7x+12} - \frac{x^2-4x-5}{x^2+7x+12}$

Adding/Subtracting Rationals HW Home Worker:
Date:

Simplify the following by adding/subtracting, factoring if possible. State the asymptotes.

1. $\frac{6}{x-5} - \frac{x+2}{x-5}$

2. $\frac{x^2+3x-2}{(x+5)(x-2)} + \frac{4x+12}{(x+5)(x-2)}$

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

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

5. Create your own problem for adding/subtracting rational expressions and then simplify it.