Module 2 – Rational Expressions
Lesson 3 – Addition and Subtraction of Rational Expressions
Homework 1

Name _____

Find all solutions for each section. Show all work.

Add and subtract the following rational expressions then simplify.

1. $\dfrac{4}{x^2-5x+4} - \dfrac{5x}{x^2-5x+4} + \dfrac{x^2}{(x-4)(x-1)}$

2. $\dfrac{x-10}{x^2-4x+3} + \dfrac{x+2}{x^2-9}$

3. $\dfrac{x-1}{x+5} - \dfrac{2x+1}{x^2+7x+10}$

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

5. $\dfrac{5y+7}{y^2-49} - \dfrac{2}{y+7}$

6. $\dfrac{x-6}{x^2+7x+6} - \dfrac{x-1}{x^2+12x+36}$

7. $\dfrac{3}{x-5} + \dfrac{x+8}{x^2-25}$

8. $\dfrac{1}{x+3} - \dfrac{x-2}{x^2-9} + \dfrac{x+5}{x^2+6x+9}$

9. $\dfrac{x+2}{x^2+8x+15} + \dfrac{x+5}{x^2+6x+5} - \dfrac{x-3}{x^2+7x+10}$

10. $\dfrac{5}{x^2-2x-15} + \dfrac{2}{x^2-x-12}$