**Mathematics 30-2**

**4.4 Adding and Subtracting Rational Expressions**

The last couple of days we have been working with multiplying and dividing rational expressions. Just like rational numbers, you do NOT need a common denominator.

Recall these steps for adding and subtracting rational numbers.

1. Determine the lowest common denominator (LCD) for the rational numbers.
2. Express each rational number as an equivalent rational number with the LCD as the denominator.
3. Combine the rational numbers by adding/subtracting the numerators.
4. Reduce the final answer to lowest terms, if possible.

**Note:** The above process is also true for rational expressions.

**Example 1:** Simplify.

1.  b) 

**Example 2:** Simplify.

1.  b) 

**Example 3:** Simplify. Express answers in lowest terms and state all nonpermissible values.

1.  b) 

c)  d) 

e)  f) 

g) 