**12.4: Simplify Rational Expressions**

**Goals: \***Identify excluded values of rational expressions

**\***Simplify rational expressions by factoring using the GCF

**\***Simplify rational expressions by factoring into two binomials

**Rational expression:** an expression that can be written as a ratio of 2 polynomials, where the dominator is not 0

**Excluded values:** numbers that would make the rational expression undefined (the denominator = 0)

**Find excluded values for each rational expression:**

**Ex: **  **Ex:  Ex: **

**Ex:  Ex:  Ex:**

None None

**Ex:  Ex: **

(2*n* – 3)(*n* – 4) (*m* + 2)(*m* – 2)

**Simplest Form:** a rational expression is in simplest form when the numerator and denominator have no common factors other than 1

**Simplify each rational expression and state the excluded values.**

**Ex:  Ex:  Ex: **

**Ex:  Ex:  Ex: **

**Ex:  Ex: **

**Simplify by factoring into binomials and state excluded values:**

**Ex:  Ex: **

**Ex:  Ex: **

**Recognize Opposites:**

**Ex:  Ex: **

**Ex: **