Algebra 1.5 7.2 **Multiplying and Dividing Rational Expressions**

* Multiply rational expressions.
* Divide rational expressions.
* Convert units of measurement using dimensional analysis.

**To multiply rational expressions**

1. \_\_\_\_\_\_\_\_\_\_\_\_ each numerator and denominator completely.

2. \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ any numerator factor with any matching denominator factor.

3. \_\_\_\_\_\_\_\_\_\_\_\_\_ numerator by numerator and denominator by denominator.

4. \_\_\_\_\_\_\_\_\_\_ as needed.

**Example 1:**  Multiply

**Example 2a:**  Multiply

**Example 2b:**  Multiply

**Example 2c:**  Multiply

**To divide rational expressions:**

**1.** Write an \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ statement with the reciprocal of the divisor.

**2.** \_\_\_\_\_\_\_\_\_\_\_\_ each numerator and denominator completely. (Steps 1 and 2 are interchangeable.)

**3.** \_\_\_\_\_\_\_\_\_\_\_\_ out any numerator factor with any matching denominator factor.

**4.** \_\_\_\_\_\_\_\_\_\_\_\_ numerator by numerator and denominator by denominator.

**5.** \_\_\_\_\_\_\_\_\_\_\_\_\_ as needed.

**Example 3:** Divide



**Example 4:** Divide

**Using Dimensional Analysis to Convert Between Units of Measurement**

To convert units using dimensional analysis, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the given measurement by conversion factors so that the undesired units \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_, leaving the desired units.

**Example 5a:** Convert 300 ounces to pounds

**Example 5a:** Convert 17 yards to inches.

**Example 5c:** Convert 25 miles per hour to feet per second.

**Homework:** Pg 506 #8-68 by 4s