**Lesson 22 Notes: Division of Rational Numbers**

**What is a Reciprocal?**

Two numbers whose product is 1 are called reciprocals of each other.

**Example A:** Find the reciprocal of 

**Example B:** Find the reciprocal of 

**Example C:** Find the reciprocal of 

**Example D:** Find the reciprocal of 

**Division of Rational Numbers**

The “rule” for dividing rational numbers:

**Example:** Find the quotient 

**Directions:** Find the quotient of each of the examples below. Show work. Reduce all answers. Write answer as improper fraction AND mixed number

**Example A:**  ** = \_\_\_\_\_\_

**Example B:**  ** = \_\_\_\_\_\_

**Example C:**  **= \_\_\_\_\_\_

**Example D:**  ** = \_\_\_\_\_\_

**Example E:** ** = \_\_\_\_\_\_

**Number Properties for Rational Numbers**

Let’s take a look at Number Properties for Rational Numbers – Fractions!

1. Closure for Addition of Fractions
2. Closure for Multiplication of Fractions
3. Identity for Addition of Fractions
4. Identity for Multiplication of Fractions
5. Commutative Property for Addition of Fractions
6. Associative Property for Addition of Fractions
7. Commutative Property for Multiplication of Fractions
8. Associative Property for Multiplication of Fractions
9. Distributive Property of Multiplication over Addition

10. Inverse Property for Addition of Fractions

11. Inverse for Multiplication of Fractions