**Math 9 – Unit 2: Algebra One**  Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Lesson #5: Dividing Monomials**  Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Learning Goal**: We are learning to divide by monomials.

We’ve added, subtracted, multiplied, and even raised monomials to powers. All that is left is dividing by monomials. First, let’s develop a rule with numbers.

Simplify 

This leads to our 4th exponent law. When dividing, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the exponents. Time to put it into practice!

a)  b)  c)  d) 

The final step is to divide a monomial into a polynomial, such as  . However, first let’s look back at adding fractions so we can see an integral step that we will need to use:



**Keep in mind when doing the following questions that the denominator gets applied to all the terms in the numerator.**

a)  b) 

c)  d) 

e) 



**Success Criteria**:

* I can divide like variables by subtracting their exponents
* I can understand the difference between dividing coefficients and dividing variables
* I can divide the monomial into each term of a polynomial separately
* I can recognize that when you divide two identical monomials, the result is one.