Properties of Exponents

Zero as an Exponent

- any nonzero number raised to the Zero
power equals 1

Example)
$$x^0 = 1$$

$$\chi' = \chi$$

Sep 26-2:59 PM

Multiplying Monomials

- Rule: Multiply the coefficients.

For like bases, keep the , add

Example)
$$(2x^3)(4x^5) = \frac{8}{2} + \frac{3}{3} +$$

Sep 26-2:59 PM

Product to a Power

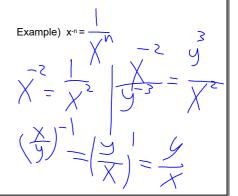
- $a^n \longrightarrow (monomial)^{exponent}$
- Rule: Raise coefficient to the exponent. Multiply outside exponent by all exponents inside the ()

Example)
$$(2x^3)^4 =$$

Sep 26-3:00 PM

Negative Exponents

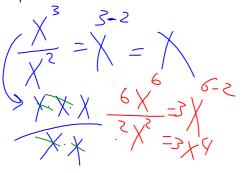
- Negative exponents must flip the base's position, so the negative exponent becomes
- It does not change the \sqrt{a} of the coefficient.



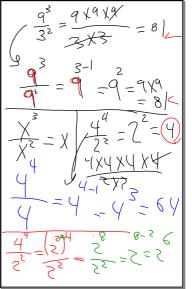
Sep 26-3:00 PM

Dividing Monomials

- Divide the coefficients. For like bases, keep the house, subtacte the exponents.
- Put answer where larger exponent was.
- You should never have a <u>Negative</u> exponent.



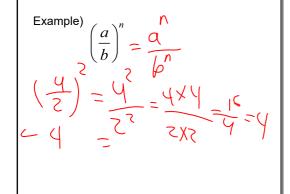
Sep 26-3:00 PM



Jan 28-12:45 PM

Quotient to a Power

- Fraction to an exponent
- raise the numerator to the exponent, raise the denominator to the exponent



Sep 26-3:00 PM



Jan 28-2:05 PM