Nov. 29- bell ringer

$$(5x^2y)^3(-6xy^3)^2$$

Section 7-2, part 1

Learning target:
You can divide monomials.

1) $\frac{x^5}{x^2} =$

Rule 1 - Dividing monomials

$$\frac{x^m}{x^n} = x^{m-n}$$

Examples

$$\frac{x^{12}}{x^8} =$$

$$\frac{x^3}{x^3} =$$

$$\frac{x^3}{x^3} =$$

Rule 2: Zero Power Rule

Any nonzero number to the zero power is 1.

Examples

$12^0 =$ ____ $\left(\frac{1}{3}\right)^0 =$ ____

$(-16)^0 =$ ____ $(x^5y^3)^0 =$ ____

$$\frac{x^3}{x^5} =$$

$$\frac{x^3}{y^5} =$$

Rule 3: Negative Exponents

$$x^{-n} = \frac{1}{x^n}$$

Examples: $x^{-3} =$

$5^{-2} =$

Simplify

1) 4^{-1}

2) $(3^{-1})^3$

3) $m^{-5} n^0$

4) $\frac{n^8}{n^5}$

5) $\frac{y^2}{x^3}$

6) $\frac{30x^4y^7}{-6x^{13}y^2}$

7) $\frac{7x^3z^5}{4z^{15}}$

8) $\frac{8x^3y^9z^5}{64x^8y^2z^{-3}}$.

9) $\dfrac{-36x^{5}y^{-2}z^{9}}{24x^{7}y^{3}z^{7}}$

10) $\dfrac{(-x)^{3}y^{3}}{x^{3}y^{6}}$

11) $\frac{(a^7b^2)^2}{(a^{-2}b)^{-2}}$

12) $\dfrac{(5x^{-1}y)^3}{(y^2)^3}$

Assignment

WS 7-2

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