Bell Work 1/20/2015

What are the 2 definitions for exponents

we developed last week?

$a^0 = 1$

$a^{-r} = \frac{1}{a^r}$ $\frac{1}{a^{-r}} = a^r$

Combining Like Terms	Product of Powers
$x+x+x=$	$x^r x^s =$

Power of Powers	Power of Products
$(x^r)^s =$	$(ab)^r =$

Quotient Powers	Powers of a Quotient
$\frac{x^r}{x^s} =$	$\left(\frac{a}{b}\right)^r =$

Back Cover

Definitions

Today we are going to be using our properties of exponents on practice problems.

We will be using the white boards.

Please make sure that you have a white board, dry-erase marker and something to erase with.

$(x^2)^4(3x^5)$

$x^{2 \cdot 4} \quad 3x^5$

$x^8 3x^5$

$3x^{13}$

$$\frac{5^{-2}}{5^{-3}} = 5^{-2+-3} = 5^{1}$$

$$6 \cdot 6^3 = 6^1 \cdot 6^3 = 6^{3+1} = 6^4$$

$$72m^{-21}m^{21}$$

$$m^{-21+21}$$

$$m^{0}$$

$$72 \cdot 1$$

$$72$$

$$\frac{1}{(3x)^{-2}} = \frac{1}{3^{-2}x^{-2}} = \boxed{3^2x^2}$$

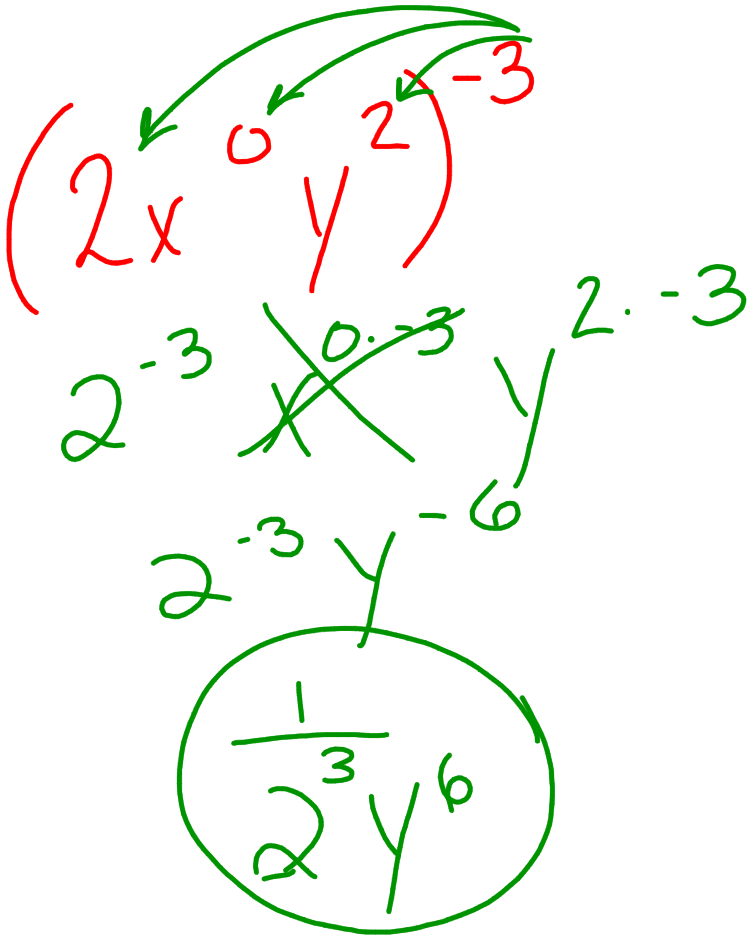
$$(6w^3w^4w^{-6})^0$$

$$= 1$$

$$\frac{2x^3}{(x^{-1})^3}$$

$$\frac{2x^3}{x^{-1\cdot 3}} = \frac{2x^3}{x^{-3}} = 2x^3x^3 = 2x^6$$

$$2x^{-5}y^{-3} = \frac{2}{x^5 y^3}$$


(2x^0 y^2)^-3
2^-3 x^0·-3 y^2·-3
2^-3 y^-6
1/2^3 y^6

$$\frac{4x^3y^2}{x^5y}$$

$$4x^{3-5}y^{2-1}$$

$$4x^{-2}y^1$$

$$\frac{4y}{x^2}$$