Bellwork Tuesday, April 15, 2014

Simplify each. Make sure your answers have no exponents that are negative or zero. Reduce fractions...No Decimals

1. $(4P^5Q^{-3}R^2)^{-2}(2P^{-2}Q^6R^{-4})^3(P^{-3}Q^{-1}R)^{-4}$

$(4^{-2}P^{-10}Q^6R^{-4})(8P^{-6}Q^{18}R^{-12})(P^{12}Q^4R^{-4})$

$\frac{8Q^{28}}{4^2P^4R^{20}} = \frac{8Q^{28}}{16P^4R^{20}} = \frac{Q^{28}}{2P^4R^{20}}$

2. $(6C^5D^{-3})^2\left(\frac{C^{-2}D^4}{3C^5D^{-1}}\right)^3 \rightarrow \left(\frac{D^5}{3C^7}\right)^3$

$(36C^{10}D^{-6})\left(\frac{D^{15}}{27C^{21}}\right)$

$\frac{36D^9}{27C^{11}} = \frac{4D^9}{3C^{11}}$

3. $\left(\frac{w^3x^{-4}}{w^{-2}y^{-3}}\right)^{-1}\left(\frac{w^{-3}y^5}{x^{-5}w^7}\right)^{-3}$

$\left(\frac{w^5x^4}{y^{-3}}\right)^{-1} \cdot \left(\frac{y^5}{x^5w^{10}}\right)^{-3}$

$\left(\frac{w^{-5}x^4}{y^3}\right)\cdot\left(\frac{y^{-15}}{x^{15}w^{-30}}\right) = \frac{w^{25}}{x^{11}y^{18}}$