Algebra 2 Name_____

© 2015 Kuta Software LLC. All rights reserved.

EXTRA CREDIT CHALLENGE

Date_____ Period____

Simplify. Your answer should contain only positive exponents with no fractional exponents in the denominator.

1) $\dfrac{\left(p^{\frac{1}{2}}r^{\frac{3}{2}}\right)^{-1} \cdot rp^{\frac{3}{2}}q^{\frac{3}{2}}}{\left(p^{-\frac{1}{2}}q^{-1}\right)^{2}}$

2) $\dfrac{x^{\frac{1}{2}}y^{\frac{3}{2}}z^{-\frac{3}{2}}}{x^{\frac{1}{2}}y^{0}z^{-\frac{5}{3}} \cdot x^{-2}y^{\frac{1}{3}}z^{2} \cdot \left(x^{\frac{3}{2}}y^{-\frac{2}{3}}z^{-\frac{1}{3}}\right)^{\frac{1}{3}}}$

3) $\dfrac{\left(m^{0}p^{2}q^{\frac{1}{3}}\right)^{-\frac{1}{2}}}{m^{\frac{3}{4}}q^{\frac{1}{2}} \cdot m^{-\frac{5}{3}}p^{2}q^{0}}$

Simplify. Your answer should contain only positive exponents.

4) $\dfrac{2a^{2}b^{-4}c^{4}}{\left(ca^{3}\right)^{-4} \cdot a^{-4}c^{4} \cdot -ba^{-1}c^{4}}$

5) $\dfrac{\left(m^{2}p^{2}q^{4} \cdot \left(2p^{3}q^{-4}\right)^{2}\right)^{4}}{\left(-2m^{2}p^{-3}q^{2}\right)^{2}}$

6) $\dfrac{\left(-2p^{-2}q^{-3}\right)^{3}}{-m^{3}p^{-3}q^{3} \cdot mp^{2}}$

© 2015 Kuta Software LLC. All rights reserved. Made with Infinite Algebra 2.