

Name \_\_\_\_\_

# Power of Quotient

Simplify the exponents. (Fractional Exponent)

1) $\left(\frac{2x^{1/2}}{3y^2}\right)^2$ $\frac{4x}{9y^4}$	2) $\left(\frac{5a^{3/2}b}{2cd^2}\right)^3$ $\frac{125a^{9/2}b^3}{8c^3d^6}$	3) $\left(\frac{3p^2}{q^{-1/2}}\right)^4$ $81p^8q^2$
4) $\left(\frac{4m^{3/2}n^2}{5p}\right)^2$ $\frac{16m^3n^4}{25p^2}$	5) $\left(\frac{2x^{1/3}y^3}{3z}\right)^3$ $\frac{8x}{27yz^3}$	6) $\left(\frac{ab^2}{3cd^{-1/2}}\right)^2$ $\frac{a^2b^4}{9c^2d}$
7) $\left(\frac{3pq^2}{2r^{-1/3}s}\right)^4$ $\frac{81p^4q^8}{16rs^{4/3}}$	8) $\left(\frac{2xy^2}{3z^{1/2}}\right)^3$ $\frac{8x^3y^6}{27z^{3/2}}$	9) $\left(\frac{5a^{3/2}}{b^{-1}}\right)^2$ $25a^3b^2$
10) $\left(\frac{3uv}{2w^{1/4}}\right)^3$ $\frac{27u^3v^3}{8w^{3/4}}$	11) $\left(\frac{4x^{1/5}}{y}\right)^2$ $\frac{16x^{2/5}}{y^2}$	12) $\left(\frac{2mn^2}{3p^{1/3}q}\right)^3$ $\frac{8m^9n^6}{27p^{1/3}q^3}$