Name _____

Power of Quotient

Simplify the exponents. (Quotient of powers)

1) $\left(\frac{(2a^2b)^3}{(3cd)^2}\right)^2$ $\frac{64a^{12}b^6}{81c^4d^4}$	2) $\left(\frac{(3xy)^2}{(2z)^3}\right)^3$ $\frac{729x^6y^6}{512z^9}$	3) $\left(\frac{(4p^2q^3)^2}{(5rs)^3}\right)^2$ $\frac{256p^8q^{12}}{15625r^6s^6}$
4) $\left(\frac{(2ab)^3}{(cd^2)^2}\right)^3$ $\frac{512a^9b^9}{c^6d^{12}}$	5) $\left(\frac{(xy^2)^2}{(2z)^4}\right)^2$ $\frac{x^4y^8}{256z^8}$	6) $\left(\frac{(3mn)^3}{(2p)^2}\right)^3$ $\frac{19683m^9n^9}{64p^6}$
7) $\left(\frac{(4cd)^2}{(3ef)^3}\right)^3$ $\frac{256c^4d^4}{729e^6f^6}$	8) $\left(\frac{(2gh)^3}{(jk^2)^2}\right)^3$ $\frac{512g^9h^9}{j^6k^{12}}$	9) $\left(\frac{(xy^3)^2}{(2z)^3}\right)^2$ $\frac{x^4y^{12}}{64z^6}$
10) $\left(\frac{(5uv)^3}{(2w)^2}\right)^3$ $\frac{15625u^9v^9}{64w^6}$	11) $\left(\frac{(2a^2)^3}{(bc)^2}\right)^2$ $\frac{64a^{12}}{b^4c^4}$	12) $\left(\frac{(3xy)^2}{(2z)^4}\right)^3$ $\frac{729x^6y^6}{4096z^{12}}$