

Name _____

Power of Quotient

Simplify the exponents. (Multiple Variables)

1) $\left(\frac{4a^3b^2c}{5d^2e}\right)^2$ $\frac{16a^6b^4c^2}{25d^4e^2}$	2) $\left(\frac{2x^{1/2}y^3}{3z}\right)^3$ $\frac{27}{125a^3b^{12}}$	3) $\left(\frac{4ab^2}{c^2d}\right)^2$ $\frac{16a^2b^4}{c^4d^2}$
4) $\left(\frac{3ab^2}{2cd}\right)^2$ $\frac{9a^2b^4}{4c^2d^2}$	5) $\left(\frac{4xy^2z}{5uv^2}\right)^3$ $\frac{64x^3y^6z^3}{125u^3v^6}$	6) $\left(\frac{2p^3q}{3rst^2}\right)^4$ $\frac{16p^{12}q^4}{81r^4s^4t^8}$
7) $\left(\frac{5a^2b^3}{2cd^2}\right)^2$ $\frac{25a^4b^6}{4c^2d^4}$	8) $\left(\frac{2x^{1/2}y^3}{3z^2}\right)^3$ $\frac{8x^{3/2}y^9}{27z^6}$	9) $\left(\frac{4ab^2c}{5def^2}\right)^2$ $\frac{16a^2b^4c^2}{25d^2e^2f^4}$
10) $\left(\frac{3pq^2}{2r^3w}\right)^4$ $\frac{81p^4q^8}{16r^{12}s^4}$	11) $\left(\frac{5a^3b^2}{2cd}\right)^2$ $\frac{25a^6b^4}{4c^2d^2}$	12) $\left(\frac{4ab^2}{5cde}\right)^3$ $\frac{64a^3b^6}{125c^3d^3e^3}$