

Name _____

Power of Quotient

Simplify the exponents.

1) $\left(\frac{2x^5}{4x^2}\right)^2$ $\frac{x^6}{4}$	2) $\left(\frac{3a^5}{5a^6b^4}\right)^3$ $\frac{27}{125a^3b^{12}}$	3) $\left(\frac{5b^3}{9b}\right)^2$ $\frac{25b^4}{81}$
4) $\left(\frac{6y^5z^6}{8y^2z^4}\right)^3$ $\frac{27y^9z^6}{64}$	5) $\left(\frac{8bc^4}{6b^3c^2}\right)^3$ $\frac{64c^6}{27b^6}$	6) $\left(\frac{ab}{6a^2b^4}\right)^3$ $\frac{1}{216a^3b^9}$
7) $\left(\frac{5a}{9a^4}\right)^3$ $\frac{125}{729a^9}$	8) $\left(\frac{5z^6w^4}{6zw^3}\right)^2$ $\frac{25z^{10}w^2}{36}$	9) $\left(\frac{3a^3}{ab^{-5}}\right)^2$ $9a^6b^{10}$
10) $\left(\frac{3vw^5}{5w^2}\right)^2$ $\frac{9v^2w^6}{25}$	11) $\left(\frac{4x^2}{x^5y}\right)^3$ $\frac{64}{x^9y^2}$	12) $\left(\frac{2mn}{m^2n^2}\right)^3$ $\frac{8}{m^3n^3}$