Name _____

Exponents (Power of a quotient)

By Using the law Power of a quotient, write each expression in a single exponent. $\frac{x^m}{y^m} = \left(\frac{x}{y}\right)^m$

1) $\frac{(15)^3}{(3)^3}$ 5^3	2) $\frac{(24)^2}{(8)^2}$ 3^2	3) $\frac{(-9)^{-4}}{(3)^{-4}}$ $(-3)^{-4}$
4) $\frac{(48)^5}{(6)^5}$ 8^5	5) $\frac{(27)^{-3}}{(-3)^{-3}}$ $(-9)^{-3}$	6) $\frac{(-24)^{-2}}{(-12)^{-2}}$ 2^{-2}
7) $\left(\frac{4}{9}\right)^4 \div \left(\frac{12}{24}\right)^4$ $\left(\frac{8}{9}\right)^4$	8) $\left(\frac{3}{18}\right)^6 \div \left(\frac{6}{15}\right)^6$ $\left(\frac{5}{12}\right)^6$	9) $\left(\frac{-4}{9}\right)^{-2} \div \left(\frac{18}{24}\right)^{-2}$ $\left(\frac{-16}{27}\right)^{-2}$
10) $\left(\frac{15}{25}\right)^{-3} \div \left(\frac{-10}{15}\right)^{-3}$ $\left(\frac{-9}{10}\right)^{-3}$	11) $\left(\frac{-18}{30}\right)^5 \div \left(\frac{-9}{12}\right)^5$ $\left(\frac{4}{5}\right)^5$	12) $\left(\frac{4}{9}\right)^3 \div \left(\frac{8}{15}\right)^3$ $\left(\frac{8}{15}\right)^3$