

Name	Rule	Example
<b>Power of Product</b>	$(xy)^a = x^a y^a$	1. $(6xy)^2 = 36x^2y^2$
<b>Power of Quotient</b>	$\left(\frac{x}{y}\right)^a = \frac{x^a}{y^a}, y \neq 0$	1. $\left(\frac{6x}{y}\right)^2 = \left(\frac{36x^2}{y^2}\right)$
<b>Fractional Exponent</b>	$x^{\frac{a}{b}} = \left(\sqrt[b]{x}\right)^a \text{ or } \left(\sqrt[b]{x}\right)^a$	1. $8^{\frac{2}{3}} = \left(\sqrt[3]{8}\right)^2 = 2^2 = 4$
<b>Zero Exponent</b>	$X^0 = 1$	1. $101^0 = 1$