Laws of Exponents – Formula Sheet:

Zero Exponent Rule:	$$a^0 = 1$$
Exponent of 1 Rule:	$$a^1 = a$$
Product Rule:	$$a^m * a^n = a^{m+n}$$
Quotient Rule:	$$\frac{a^m}{a^n} = a^{m-n}$$
Power Rule:	$$(a^m)^n = a^{mn}$$ $$a^{m^n} = a^{(m^n)}$$
Negative Exponent Rule:	$$a^{-m} = \frac{1}{a^m}$$ $$\left(\frac{a}{b}\right)^{-m} = \left(\frac{b}{a}\right)^m$$ $$\frac{a^{-n}}{b^{-m}} = \frac{b^m}{a^n}$$
Rational Exponent Rule:	$$a^{m/n} = \sqrt[n]{a^m}$$ $$a^{1/n} = \sqrt[n]{a}$$
Power of a Product Rule:	$$(ab)^m = a^m b^m$$
Power of a Fraction Rule:	$$\left(\frac{a}{b}\right)^m = \frac{a^m}{b^m}$$