

THE LAWS OF EXPONENTS

1	Product of Powers	$a^m \times a^n = a^{m+n}$	$2^2 \times 2^3 = 2^{2+3} = 2^5$
	If I'm multiplying and my basis are the same, I can add the exponents		
2	Quotient of Powers	$a^m \div a^n = a^{m-n}$	$2^3 \div 2^2 = 2^{3-2} = 2^1$
	If I'm dividing and my basis are the same, I can subtract the exponents (big number first)		
3	Power of a Power	$(a^m)^n = a^{m \times n}$	$(2^2)^3 = 2^{2 \times 3} = 2^6$
	When brackets are involved, we MULTIPLY		
4	Power of a Product	$(a \times t)^m = a^m \times t^m$	$(2 \times 3)^2 = 2^2 \times 3^2$
	Distribute the exponent to everything inside the brackets		
5	Power of a Quotient	$\left(\frac{a}{t}\right)^m = \frac{a^m}{t^m}$	$\left(\frac{2}{3}\right)^2 = \left(\frac{2^2}{3^2}\right)$
	Distribute the exponent to everything inside the brackets		
6	Identity Exponent	$x^1 = x$	$2^1 = 2$
	We don't write to the power of one, it's always there (but invisible)		
7	Zero Exponent	$x^0 = 1$	$2^0 = 1$
	Anything to the power of zero is equal to one		