8.EE.1 Know and apply the properties of integer exponents to generate equivalent numerical expressions.

The Rule	Why it Works	Example
When MULTIPLYING with LIKE BASES, you keep the base and add the exponents	$x^4 \cdot x^2 = x \cdot x \cdot x \cdot x \cdot x \cdot x = x^6$ $x^4 \cdot x^2 = x^6$	$x^{4+2} = x^6$
When DIVIDING with LIKE BASES, you keep the base and SUBTRACT the exponents	$\frac{a^6}{a^3} = \frac{\cancel{a \cdot a \cdot a} \cdot a \cdot a \cdot a}{\cancel{a \cdot a \cdot a}} = \frac{a \cdot a \cdot a}{1} = a^3$	$a^{6-3} = a^3$
When RAISING A POWER TO A POWER, you MULTIPLY the exponents	$(b^2)^3 = (b \cdot b) \cdot (b \cdot b) \cdot (b \cdot b) = b^6$	$b^{2 \cdot 3} = b^6$
When you have a NEGATIVE exponent, you make it a fraction, flip it, and make the exponent POSITIVE.	$c^{-4} = \frac{1}{c^4}$	$\frac{a^{-2}}{b^3} = \frac{1}{a^2 b^3}$
When you have ZERO as an exponent, the answer is 1! ALWAYS	$a^0 = 1$	$7,201^0 = 1$
Reminder: When it doubt, write it out ☺		