


<b>Cornell Notes</b> 	<b>Topic/Objective: 3.0 Laws of Exponents</b>	<b>Name:</b>
		<b>Class/Period:</b>
		<b>Date:</b>

<b>Essential Question:</b>

Law of Exponents	Example
1. $x^0 =$	$(\text{☺})^0 =$  $\frac{x^7}{x^7} =$
2. $x^{-n} =$  $\frac{1}{x^{-n}} =$	$3x^{-2} =$  $\frac{1}{-3x^{-2}} =$
3. $x^m x^n =$	$x^2 y^3 x^8 y^{-1} =$
4. $\frac{x^m}{x^n} =$	$\frac{x^7 y^3}{x^3 y^{11}}$
5. $(x^m)^n$	$(x^2)^3$
6. $(xy)^n$	$(2xy^2)^3$

<b>Summary:</b>

$$7. \left( \frac{x}{y} \right)^{-n}$$

$$\left( \frac{4x^3}{2y^2} \right)^{-3}$$

$$8. x^{\frac{m}{n}}$$

$$x^{\frac{1}{2}}$$

$$4^{\frac{5}{2}}$$

$$9. \sqrt{\frac{x}{y}}$$

$$\sqrt[3]{\frac{-1}{125}}$$

**A note...  $-7^2$  vs.  $(-7)^2$**

**Summary:**