

Name: _____

Date: _____

Aim: What are the Laws of Exponents (Day 3)?

D O N O W :

Write each expression as a single power raised to a positive exponent.

1.) $b^3 \cdot b^5$

2.) $n^{-1} \cdot n^{-4}$

3.) $(-2)^2 \cdot (-2)^5$

4.) $\frac{x^5}{x^4}$

5.) $\frac{n^5 n^6}{n^3}$

Evaluate the following using the order of operations.

6.) $(2^3)^2$

7.) $(n^5)^6$

Power of a Power

Complete the table below.

Power	Base	Expand	Product as a Power
7^2			
x^2			
w^2			
$(w^8)^2$			
$(y^3)^4$			
$(x^2)^5$			

Law 5: _____

Simplify each expression as a base to a single exponent.

1.)	2.)	3.)	4.)	5.)
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More Practice

Write each expression as a base to a single exponent.

a) $(x^3)^2$

b) $(a^4)^8$

c) $(x^{-4})^2$

d) $(2^2 \cdot 2^4)^3$

Simplify each expression as a base to a single positive exponent. Evaluate where possible.

e) $(a^3)^0$

f) $(19^3)^0$

g) $(x^{-4})^2$

h) $(k^{-2})^0$

i) $(h^3)^{-3}$

j) $(x^2)^8 \div (x^2)^4$

k) $(p^4 \div p^6)^3$

l) $(a^3 \cdot a^2 \cdot a^{-4})^2$



Summary of the laws:

$y^0 =$ _____

$y^{-5} =$ _____

$y^6 \cdot y^2 =$ _____

$y^9 \div y^3 =$ _____

$(y^6)^2 =$ _____