Exponent Laws 1

Multiplying Exponents (Product Law)

Expression	Repeated Multiplication	Power Form
$2^3 \times 2^2$		
$4^6 \times 4^2$		
$(-3)^2 \times (-3)^5$		

Compare the exponents of the expression with the exponents of the power form.

Do you see a pattern???

Example 1 - Product Law

Write each as a single power and then evaluate.

a) $5^3 \times 5^3$

b) $3^2 \times 3^7$

c) $(-2) \times (-2)^4$

Dividing Exponents (Quotient Law)

Expression	Repeated Multiplication	Power Form
$2^6 \div 2^2$		
$3^5 \div 3^3$		
$(-5)^9 \div (-5)^6$		

Compare the exponents of the expression with the exponents of the power form.

Do you see a pattern???

Example 2 - Quotient Law

Write each as a single power and then evaluate.

a) $5^8 \div 5^4$

b) $7^5 \div 7$

c) $(-3)^9 \div (-3)^7$

STOP   Complete the following: **Practice - Exponents 1**
Check your solutions using the key provided.