7-3.notebook March 10, 2014

Section 7-3 More Multiplication Properties of Exponents

Students will be able to:
-raise a power to a power
-raise a product to a power

What does 4^{3} really mean? Draw it out. $4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 = 4^{6}$ Rule for raising a power to a power? while 2^{4}

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Raising a Power to a Power

 $(a^m)^n = a^{mn}$

Example:

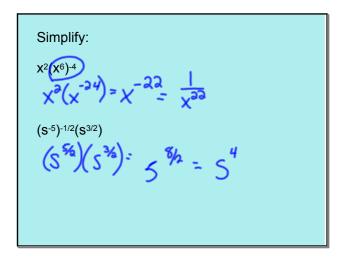
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Practice:

1.
$$(p^5)^4 = p^{20}$$

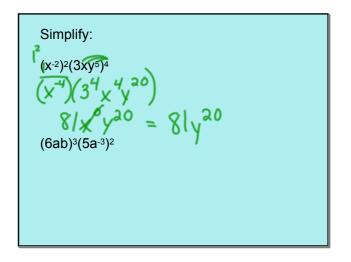
Why do you think this works?

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#35. Simplify, write answers in scientific notation.

(4 x 10²)⁵

4⁵ x /0¹⁰

1024 x 10¹³

1.024 x 10¹³

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Challenge. Use the fact that if $\underline{a^x = a^y}$, then x = y.

Hwk:
pg. 436 - 438
#12 - 40 (4th), 42 - 62 (evens),
66, 68, 70

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