



Pre-Algebra: Exponents #4 (page 1)

Identify the base and the exponent.

a.) x^3

b.) 2^x

YOU MUST EXPAND to simplify. Look for patterns.ExpandRule

1. $2^1 \cdot 2^6 = 2^n$

1. _____

2. $2^2 \cdot 2^3 = 2^n$

2. _____

3. $2^4 \cdot 2^2 = 2^n$

3. _____

4. $7^0 \cdot 7^5 = 7^n$

4. _____

5. $\frac{2^8}{2^2} = 2^n$

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6. $\frac{6^7}{6^4} = 6^n$

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7. $\frac{6^4}{6^7} = 6^n$

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8. x^{-2} Write the power with a positive exponent. 8. _____

9. $x^{-2} \cdot x^3 = x^n$ 9. _____

10. $x^0 \cdot x^4 = x^n$ 10. _____

11. $\frac{x^8}{x^5} = x^n$ 11. _____

12. What is the rule for dividing a power by a power? _____

13. Write the rule for:

multiplying a power times a power.

dividing a power times a power.

$$a^m \cdot a^n = a^{\text{_____}}?$$

$$\frac{a^m}{a^n} = a^{\text{_____}}?$$

14. Show that $4^{-3} = \frac{1}{4^3}$. (Hint: Use a table if necessary)

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