



Pre-Algebra: Exponents #6 (page 1)

YOU MUST EXPAND to simplify. Look for patterns.

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3. $(4^4)^2 = 4^n$

3. _____

4. $(x^2)^6 = x^n$

4. _____

5. $(5^2)^3 = 5^n$

5. _____

Write the rule for raising a power to a power.

6. $(a^m)^n = a^{\text{_____}}?$



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7. $3^{-3} \cdot 3^7 = 3^n$ 7. _____

8. $x^{-4} \cdot x^0 = x^n$ 8. _____

9. $\frac{7^8}{7^6} = 7^n$ 9. _____

10. $\frac{10^3}{10^{10}} = 10^n$ 10. _____

11. $\frac{x^9}{x^5} = x^n$ 11. _____

12. $5^{-3} =$ _____ Do not leave your answer as a power.

13. $x^{-11} =$ _____ Write answer using a positive exponent.

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