



## Pre-Algebra: Exponents #8 (page 1)

**Expand the following expressions, and then simplify. Leave the answer in exponential form with positive exponents.**

1.  $(x^2)^{-4} =$  \_\_\_\_\_

1. \_\_\_\_\_

2.  $\frac{x^3}{x^{-3}} =$  \_\_\_\_\_

2. \_\_\_\_\_

3.  $\frac{30x^6}{45x^3} =$  \_\_\_\_\_

3. \_\_\_\_\_

4.  $\frac{18a^{-4}}{54a^2} =$  \_\_\_\_\_

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Pre-Algebra: Exponents #8 (page 2)

**Expand and Evaluate each expression when  $y = 4$  and  $x = 2$**

5.  $\frac{y^2}{x^{-4}} =$  \_\_\_\_\_

5. \_\_\_\_\_

**Rewrite each expression to show the rules for exponents**

6.  $\frac{14x^2y^5}{49x^4y^3}$

6. \_\_\_\_\_

**Find the value of N in each equation**

7.  $\frac{x^6}{x^N} = x^5$

7. \_\_\_\_\_

8.  $(x^{-N})^2 = x^8$

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