

Name: _____

Date: _____

Properties of Integer Exponents Homework

Use the properties of exponents to write an equivalent expression

1. $\frac{8^{12}}{8^9} =$

2. $6^{-5} =$

3. $2^{-7} =$

4. $7^6 \cdot 7^4 =$

5. $(-7) \cdot (-7) \cdot (-7) =$

6. $(3^3)^2 =$

Find the value of each power. You may use a multiplication chart but do not use a calculator.

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

8. $256^0 =$

9. $\frac{4^4}{4^6} =$

10. $8^{-2} =$

11. $10^{-2} =$

12. $(2^2)^{-3} =$

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Simplify Properties of Integer Exponents Homework

Simplify each expression

1. $(2^2)^3 - (10 - 6)^3 + 4^{-3} =$

2. $(5 - 2)^4 \cdot 3^{-8} + (5 + 2)^0 =$

3. $\frac{(3+1)^6}{(7-3)^3} =$

4. $\frac{(6-1)^4}{(3+2)^3} =$

5. $(10 - 6)^3 \cdot 4^2 + (10 + 2)^2 =$

6. $\frac{(12-5)^7}{(3+4)^4} =$

Find the missing exponent

7. $(b^2)^{\square} = b^{-6}$

8. $x^{\square} \cdot x^6 = x^9$

9. $\frac{y^{25}}{y^?} = y^5$