

Name: _____

Period: _____

Date: _____

Exponent Rules

Directions Simplify. Write your answer in exponential notation and with only positive exponents.

1. $3a^5 \cdot 2a^7$

6. $\frac{64g^3}{8g}$

2. $(-2x^4)(4x^{-2})$

7. $(r^5)^2$

3. $7y^{10} \cdot 3y^6$

8. $(3x^4)^5$

4. $\frac{10t^4}{5t^2}$

9. $(5a^2b^3c^4)^7$

5. $\frac{12p^5}{4p^{-2}}$

10. a^0

$$11. (4s)^0$$

Challenge Questions:

$$16. \frac{(4a^2b^2)^3}{a^2b^3}$$

$$12. x^3 \cdot x^{-3}$$

$$17. \frac{20x^4y^2z^3}{5x^2y^5z^3}$$

$$13. y^{-2}$$

$$14. a^2b^{-3}$$

$$15. \frac{4c^2}{2c^5}$$