

Name _____

Homework # _____

Laws of Exponents

Use the laws of exponents to perform each indicated operation.

1. $10^{-2} \cdot 10^5$

8. $x^{-5} \cdot x$

2. $3^{-4} \cdot 3^{-2}$

9. $m^2 \div m^7$

3. $10^{-3} \div 10^{-5}$

10. $t^{-6} \div t^2$

4. $3^4 \div 3^0$

11. $(a^{-4})^3$

5. $(4^{-1})^2$

12. $(x^{-2})^0$

6. $(3^{-3})^{-2}$

13. $7x^0 - (6x)^0$

7. $a^0 \cdot a^4$

14. $y^{n+2} \cdot y^{n+1}$

$$15. \frac{x^{k+2}}{x^k}$$

$$18. \frac{(x^3y)^3}{xy^3}$$

$$16. \frac{y^4 \cdot y^3}{(y^2)^3}$$

$$19. 4a^0 + 4^{-1}$$

$$17. \frac{y^{4c}}{y^c}$$

$$20. (9a^{-1})(3a)^{-2}$$