

T3-14 Worksheet

Number _____ Name _____ Period _____

Simplify each expression. Your final answer should be all positive exponents.

1. $a^6 \cdot a^3$

2. $(x^5)^2$

3. $(4a^2b^3)^5$

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

5. $(2^3x^2)^5$

6. $(x^4y^7)^{-3}$

7. $\frac{x^{11}y^{10}}{x^{-3}y^{-1}}$

8. $-3x^{-4}y^0$

9. $\frac{5x^3y^9}{20x^2y^{-2}}$

10. $(10x^5y^3)^{-3}$

11. $\frac{x^{-1}y}{xy^{-2}}$

12. $(4x^2y^5)^{-2}$

13. $\frac{2x^2y}{6xy^{-1}}$

14. $\frac{xy^9}{3y^{-2}} \cdot \frac{-7y}{21x^5}$

15. $\frac{12xy}{7x^4} \cdot \frac{7x^5y^2}{4y}$