

Name: _____ Period: _____

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HW 4-6: More Negative Exponents

Simplify the following expressions. Express all your answers with positive exponents.

1. $\frac{a^3}{a^{-2}}$

8. $(m^{-2})^{-6}$

2. $\frac{b^{-4}}{b^5}$

9. $\left(\frac{1}{a^{-2}}\right)^{-5}$

3. $\frac{c^{-6}}{c^{-2}}$

10. $3^{-1}w^0$

4. $d^{-4} \cdot d^7$

11. $\frac{3x^{-2}y}{xy}$

5. $e^{-2} \cdot e^{-5}$

12. $(-3x^{-1}y^2)^2$

6. $f^3 \cdot f^{-9}$

13. $\frac{b^{-3}b^{-6}}{b^{-9}}$

7. $(5^{-3})^{-2}$

14. $2b^3b^{-4}$

Simplify the following expressions. Express all your answers with positive exponents.

15. $(x^4)^{-9}$

23. $\left(\frac{2a}{9c}\right)^{-2}$

16. $(3m^4m^{-3})^2$

24. $\frac{(ab)^{-1}}{cd^{-2}}$

17. $3a^0b^{-2}$

25. $\frac{12de^2}{4d^{-1}e^{-4}}$

18. $\frac{fg^{-1}}{9h^{-2}}$

26. $\frac{3b}{-5c^{-1}}$

19. $\frac{4rs^{-2}}{-3t^{-2}}$

20. $c^3d^2e^{-1}$

21. $(-17.4b^{-15}y^4u^3)^0$

22. $\frac{35x^3y^9}{7x^{-2}y^7}$