

Algebra 1

Unit 7 Exponent Rules Worksheet #2

Simplify each expression below using exponent rules. Your final answer should not include any negative exponents. You MUST show work in order to receive credit.

1. $x^5 \cdot x^2$	2. $y^3 \cdot y \cdot y^4$	3. $b^4 \cdot b^{-4}$
4. $7x^3y^2 \cdot 5xy^9$	5. $a^{10} \cdot a^2 \cdot a^{-6}$	6. $(z^5)^5$
7. $(b^7)^2$	8. $(m^{-8})^{-3}$	9. $(x^2y^4m^3)^8$
10. $(3x^2)^4$	11. $(2ab)^5$	12. $(2x^3y)^6$
13. $(m^7)^4 \cdot m^3$	14. $p^2 \cdot (p^5)^2$	15. $\frac{x^5}{x^2}$
16. $\frac{c^4}{c^8}$	17. $\frac{5x^{-4}}{x^{-9}}$	18. $\frac{x^3 \cdot x^4}{x^2}$

19. $\left(\frac{6}{z^4}\right)^3$	20. $\left(\frac{a^3}{b^5}\right)^4$	21. $\left(\frac{3x^4}{y^6}\right)^5$
22. $\left(\frac{m^4}{5n^9}\right)^3$	23. $\left(\frac{3x^7}{2y^{12}}\right)^4$	24. $(8m)^0$
25. $5x^0y^5$	26. $2x^{-2}$	27. $5m^{-3}n^4$
28. $3x^{-2}y^{-5}$	29. $(x^{-2}y^2)^{-3}$	30. $(4x^4y^{-3})^{-2}$
31. $(f^{-3}g^5h^8)^{-3}$	32. $(x^2)^4 \cdot 3x^5$	33. $(3x^3)^2 \cdot (2x)^3$