

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.

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|--------------------------|------------------------------------|---------------------------------|
| 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. $\frac{x^3 \cdot x^4}{x^2}$ |

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|---------------------------------------|---|---------------------------------------|
| 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. $(3x^3)^2 \cdot (2x)^3$ |