

Practice 8-4

More Multiplication Properties of Exponents

Simplify each expression.

1. $(4a^5)^2$

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

3. $(5^2)^2$

4. $(x^5)^2$

5. $2^7 \cdot (2^3)^2$

6. $d^2 \cdot (d^4)^4$

7. $c^4 \cdot (c^6)^2$

8. $(z^{-4})^{-3}$

9. $(a^2b)^4$

10. $(d^2)^{-4}$

11. $(b^{-3})^6$

12. $(y^5)^3$

13. $(s^2)^8$

14. $(x^4y)^3$

15. $d^5 \cdot (d^2)^4$

Simplify. Write each answer in scientific notation.

16. $10^{-9} \cdot (2 \times 10^2)^2$

17. $(3 \times 10^{-6})^3$

18. $10^4 \cdot (4 \times 10^6)^3$

19. $(7 \times 10^7)^2$

20. $10^{-3} \cdot (2 \times 10^3)^5$

21. $(6 \times 10^5)^3$

22. $(5 \times 10^5)^4$

23. $(2 \times 10^{-3})^3$

24. $(5 \times 10^2)^{-3}$

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