



*Section 7-2 : Part 1*  
**Practice Masters Level B**

**8.2** *Laws of Exponents: Dividing Monomials*

**Simplify each expression. Assume that the conditions of the Quotient-of-Powers Property are met.**

- |   |   |  |
|---|---|--|
| 1. $\left(\frac{c}{d}\right)^5$ _____             | 2. $\left(\frac{g^2}{f^5}\right)^3$ _____         | 3. $\left(\frac{7y}{2x^3}\right)^2$ _____        |
| 4. $\left(\frac{2a^4}{3b^7}\right)^4$ _____       | 5. $\left(\frac{14uv^2}{7u^3v^2}\right)^6$ _____  | 6. $\left(\frac{-gh^4}{g^3h}\right)^7$ _____     |
| 7. $\left(\frac{9w^4}{q^6}\right)^2$ _____        | 8. $\left(\frac{5m^4}{n^7}\right)^{2p}$ _____     | 9. $\left(\frac{g^3f^6}{2f^3}\right)^4$ _____    |
| 10. $\left(\frac{2t^3}{5v^2}\right)^3$ _____      | 11. $\left(\frac{7x^2y}{28x^5y^3}\right)^2$ _____ | 12. $\left(\frac{3z^2y}{xyz}\right)^{3v}$ _____  |
| 13. $\left(\frac{-3uv^3}{9u^2v^5}\right)^3$ _____ | 14. $\left(\frac{(xy)^4}{x^3y^2}\right)^7$ _____  | 15. $\left(\frac{k^4p^5}{g^2}\right)^{2f}$ _____ |

**Evaluate each quotient given  $a = 3$ ,  $b = -4$ , and  $c = 6$ .**

- |                                    |                                       |   |
|------------------------------------|---------------------------------------|---|
| 16. $\frac{b^5}{b^2}$ _____        | 17. $\frac{a^2bc^4}{ab^3c^5}$ _____   | 18. $\frac{b^4c}{b^5c^3}$ _____         |
| 19. $\frac{b^ac^2}{ab^4c}$ _____   | 20. $\frac{2abc}{4a^2b}$ _____        | 21. $\frac{(abc)^4}{a^3b^5c^2}$ _____   |
| 22. $\frac{c^{2a}b^2}{c^6b}$ _____ | 23. $\frac{c^2(2ab)^3}{c^3a^2}$ _____ | 24. $\left(\frac{ab}{c}\right)^3$ _____ |

**Find each quotient. Assume that the conditions of the Quotient-of-Powers Property are met.**

- |  |   |                                       |
|--|---|---------------------------------------|
| 25. $\frac{65b^4}{13b^2}$ _____                                | 26. $\frac{-13xy^3}{169x^2y^8}$ _____                   | 27. $\frac{-m^4n^7}{-3m^7n^5}$ _____  |
| 28. $\frac{6a^5b^2c}{3a^4b^9c^3}$ _____                        | 29. $\frac{-5z^{11}}{25y^3}$ _____                      | 30. $\frac{x^5yz^6}{x^2y^7z^2}$ _____ |
| 31. $\frac{-5.04w^{12}(u^3v)^4}{0.56(w^5u)^{11}v^7}$ _____     | 32. $\frac{144m^3(np)^5q}{-4m(n^3p^2)^7q^2}$ _____      |                                       |
| 33. $\frac{256(x^4y^3z^7)^2v^{11}}{-1024(xy^3z^2v^5)^2}$ _____ | 34. $\frac{535g^2h^7(f^7p)^4}{107(g^5hf^2)^5p^3}$ _____ |                                       |

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