

Dividing Monomials

Simplify. Assume that no denominator is equal to zero.

1. $\frac{6^5}{6^4}$ **6^1 or 6**

2. $\frac{9^{12}}{9^8}$ **9^4 or 6561**

3. $\frac{x^4}{x^2}$ **x^2**

4. $\frac{r^3s^2}{r^3s^4}$ **$\frac{1}{s^2}$**

5. $\frac{m}{m^3}$ **$\frac{1}{m^2}$**

6. $\frac{9d^7}{3d^6}$ **$3d$**

7. $\frac{12n^5}{36n}$ **$\frac{n^4}{3}$**

8. $\frac{w^4u^3}{w^4u}$ **u^2**

9. $\frac{a^3b^5}{ab^2}$ **a^2b^3**

10. $\frac{m^7n^2}{m^3n^2}$ **m^4**

11. $\frac{-21w^5u^2}{7w^4u^5}$ **$-\frac{3w}{u^3}$**

12. $\frac{32x^3y^2z^5}{-8xyz^2}$ **$-4x^2yz^3$**

13. $\left(\frac{4p^7}{7s^2}\right)^2$ **$\frac{16p^{14}}{49s^4}$**

14. 4^{-4} **$\frac{1}{256}$**

15. 8^{-2} **$\frac{1}{64}$**

16. $\left(\frac{5}{3}\right)^{-2}$ **$\frac{9}{25}$**

17. $\left(\frac{9}{11}\right)^{-1}$ **$\frac{11}{9}$**

18. $\frac{h^3}{h^{-6}}$ **h^9**

19. $k^0(k^4)(k^{-6})$ **$\frac{1}{k^2}$**

20. $k^{-1}(\ell^{-6})(m^3)$ **$\frac{m^3}{k\ell^6}$**

21. $\frac{f^{-7}}{f^4}$ **$\frac{1}{f^{11}}$**

22. $\left(\frac{16p^5q^2}{2p^3q^3}\right)^0$ **1**

23. $\frac{f^{-5}g^4}{h^{-2}}$ **$\frac{g^4h^2}{f^5}$**

24. $\frac{15x^5y^{-9}}{5xy^{-11}}$ **$3x^5y^2$**

25. $\frac{-15w^0u^{-1}}{5u^3}$ **$-\frac{3}{u^4}$**

26. $\frac{48x^6y^7z^5}{-6xy^5z^6}$ **$-\frac{8x^5y^2}{z}$**