

Exponents Worksheet 12

Simplify each expression. Write each answer with no negative exponents.

1. $\frac{-24a^{-2}b^{-6}c^7}{-6a^{-4}b^{-2}c^{-2}}$

2. $\frac{-2a^2b^{-3}c}{6a^{-2}b^3c^{-1}}$

3. $(-3a^2b^{-3})^0$

4. $(-3a^2b^{-3})$

5. $(m^2n^{-4})^2$

6. $\frac{24a^7b^{-3}c^{-5}}{8a^{-2}b^{-5}c}$

7. $\frac{8a^{-2}b^{-5}c^{-7}}{24a^2b^{-3}c^{-10}}$

8. $\frac{(a^2b^{-3})^2}{(a^{-3}b^2)^3}$

9. $\frac{(x^2y^{-3})^2}{(x^4y)^2}$

10. $x^3 \cdot x^6$

11. $(x^3)^6$

12. $\frac{x^3}{x^6}$

13. $\frac{x^6}{x^3}$

14. $\frac{x^{-3}}{x^{-6}}$

15. $\frac{x^{-6}}{x^{-3}}$

16. $\frac{x^{-6}}{x^3}$

17. $\frac{x^{-3}}{x^6}$

18. $(2xy)^0$

19. $(2xy)$

20. $(a^2b^3c^5)(a^3bc^2)$

21. $(3x^3)$

22. $(2x^2)^3$

23. $(-3xy)(2x^2y)$

24. $(-3a^3b)^2$

$$25. 2x^2y(3xy^2 - 2xy + 2y)$$

$$26. \frac{2a^2b}{6a^5b^3}$$

$$27. \frac{30a^{-2}b^7c}{15a^{-4}b^{-2}c^4}$$

$$28. (-2x)(3xy)$$

$$29. \frac{-2a^3b^2c^7}{6a^7bc^2}$$

$$30. \frac{-22a^{-2}b^{-7}c^5}{-11b^{-2}c^3}$$

$$31. (-5ab)$$

$$32. (3x^3y^2)^0$$

$$33. 5^{-2}$$

$$34. 3x(5x + 2xy - 6x^2)$$

$$35. (m^3n^2)^4$$

$$36. c^6 \cdot c \cdot c^2$$

$$37. \frac{m^6n^2}{m^2n^4}$$

$$38. \frac{m^{-2}n^4}{m^4n^{-3}}$$

$$39. (2x^3y^5)(-4xy^2)$$

$$40. \frac{24a^7b^{-2}c^3}{6a^{-2}b^4c^{-3}}$$

$$41. \frac{(a^3b^{-2})^2}{(a^2b^{-3})^3}$$

$$42. \frac{-6a^4b^{-3}c^2}{12a^{-1}b^7c^{-2}}$$