

Working with Exponents

Simplify:

RULES:

1. $(-2x^2y^3)(-3xy^2)$

2. $\frac{9x^8y^4}{3xy^3}$

3. $(3x^2y^4)^3$

4. $\frac{x^5}{x^5}$

5. True or False: $(2x)^0 = 2x^0$

6. $\frac{x^6}{x^8}$

7. $\frac{16x^6y^7}{(-2x^3y^2)^3}$

8. $(5x^{-5})(2x^2)^2$

9. $\frac{1}{x^{-5}}$

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

11. $\left(\frac{x^3}{2y}\right)^2$

12. $\left(\frac{x^3}{2y}\right)^{-2}$

13. $(y^n)(y^{3+n})$

Simplify and express using only positive exponents:

14. $(2y^{-2})^4$

15. $\frac{16x^{-3}}{(2x^5)^2}$

16. $\frac{3x^{-6}}{6x^{-5}}$

17. $\frac{(r^{-2}t^3)^{-2}}{r^3t^5}$