

PROPERTIES OF EXPONENTS

Simplify each expression. Use only positive exponents.

1. $(3a^2)(4a^6)$

2. $(-4x^2)(-2x^{-2})$

3. $(4x^3y^5)^2$

4. $(2x^{-5}y^4)^3$

5. $\frac{8a^5}{2a^2}$

6. $\frac{6x^7y^5}{3x^{-1}}$

7. $\frac{(4x^2)^0}{2xy^5}$

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

9. $(-6m^2n^2)(3mn)$

10. $(3x^4y^5)^{-3}$

11. $\frac{(2r^{-1}s^2t^0)^{-2}}{2rs}$

12. $x^5(2x)^3$

13. $\frac{x^4x^{-2}}{x^{-5}}$

14. $\frac{(12x^2y^6)^2}{8x^4y^7}$

15. $(4p^2q)(p^2q^3)$

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

17. $(p^2)^{-2}$

18. $\frac{-15x^4}{3x}$

19. $\frac{r^2s^3t^4}{r^2s^4t^{-4}}$

20. $\frac{xy^2}{2} \cdot \frac{6x}{y^2}$

21. $(s^2t)^3(st)$

22. $(3x^{-3}y^{-2})^{-2}$

23. $(h^4k^5)^0$

24. $\frac{s^2t^3}{r} \cdot \frac{sr^3}{t}$