

## Simplifying Algebraic Expressions Involving Exponents

Simplify. Express each answer with positive exponents.

$$a^6(a^4)$$

$$\frac{b^4}{b^{-2}}$$

$$(c^4)^3$$

$$(d^{-4})(d^7)$$

$$\frac{e^{-5}}{e^{-3}}$$

$$(f^7)^{-2}$$

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

Evaluate the expression  $\frac{(x^{2n+1})(x^{3n-1})}{x^{2n-5}}$  for  $x = -3$  and  $n = 2$  by

Simplifying, then substituting.

Substituting, then simplifying.

Simplify.

$$\frac{(27a^{-3}b^{12})^{\frac{1}{3}}}{(16a^{-8}b^{12})^{\frac{1}{2}}}$$

$$\left(\frac{\sqrt[5]{x^8}}{\sqrt{x^3}}\right)^3$$