

### Exponent Practice

Using the Laws of Exponents, simplify the following expressions.

$\left(\frac{3}{x}\right)^3$ $\frac{27}{x^3}$	$(a^3b^4)^5$ $a^{15}b^{20}$	$(-2x^3)^2$ $4x^6$	$x^4 \cdot 4x^2 \cdot 2x$ $8x^7$
$(-x^2)(2x^4)^3$ $-8x^{14}$	$5a^4 \cdot a^{-3}$ $5a$	$2x^2 \cdot 3y^3 \cdot x^4$ $6x^6y^3$	$6x^4 \cdot 2xy \cdot 3y^3$ $36x^5y^4$
$(-x^4)(-x)^2(-x)$ $x^7$	$\frac{x^5}{x^3}$ $x^2$	$\frac{a^5b^7}{a^4}$ $ab^7$	$\frac{12x^4y^4}{3x^2y}$ $4x^2y^3$
$\left(\frac{4a^5}{2a^3}\right)^{-3}$ $(2a^2)^{-3}$ $\frac{1}{8a^6}$	$(3x^2y)^{-2}(6x^4y^5)$ $\frac{6x^4y^5}{9x^4y^2}$ $\frac{2y^3}{3}$	$\frac{(2a^3b^2)^3}{(2a^2b)^2}$ $\frac{8a^9b^6}{4a^4b^2}$ $2a^5b^4$	$\left(\frac{8x^4y^2}{10x^8y^4}\right)^{-2}$ $\frac{25x^8y^4}{16}$