

## Using the Exponent Laws to Evaluate Expressions

Simplify using the exponent laws, then evaluate each expression for the given values. Leave your answer as an integer or a fraction (no decimal answers).

a.  $(x^{-3})(x)(x^4)$ , for  $x = 5$

b.  $(k^{-4})(k^{-2})(k^3)$ , for  $k = 4$

c.  $(u^{-1}v)(u^4v^{-1})$ , for  $u = 2, v = -3$

d.  $(m^3n^3)(m^{-5}n^{-2})$ , for  $m = -1, n = 3$

e.  $(y^{-5} \div y^{-7})$ , for  $y = 4$

f.  $(d^{-4} \div d^{-1})$ , for  $d = 6$

g.  $\frac{k^{-2}m^2}{km^{-1}}$ , for  $k = -2, m = 3$

h.  $(a^{-2}b) \div (a^{-5}b^{-3})$ , for  $a = 5, b = 2$

i.  $(u^{-7})^{-1}$ , for  $u = -1$

j.  $(3w^4)^{-2}$ , for  $w = -2$

k.  $(st^4)^{-2}$ , for  $s = 7, t = 3$

l.  $(a^{-2}b^3)^{-2}$ , for  $a = 3, b = -2$