

Exponential Functions – Practice Quiz

Rewrite each expression as a single power, with a positive exponent.

$$5^{-4}$$

$$\frac{1}{2^{-4}}$$

$$(-9^4)^{-1}$$

$$[(7^{-3})^{-2}]^{-2}$$

$$\frac{(5^3)^{-2}}{5^{-6}}$$

$$(3^{-2}(3^3))^{-2}$$

$$8^{\frac{2}{3}}\left(8^{\frac{1}{3}}\right)$$

$$9^{-\frac{1}{5}}\frac{2}{9^{\frac{2}{3}}}$$

$$10^{-\frac{4}{5}}\left(10^{\frac{1}{15}}\right) \div 10^{\frac{2}{3}}$$

$$y^{10}(y^4)^{-3}$$

$$\frac{w^4(w^{-3})}{(w^{-2})^{-1}}$$

$$\frac{(b^{-7})^{-2}}{b(b^{-5})b^9}$$

Simplify. Express answers with positive exponents.

$$\frac{m^2n^2}{(m^3n^{-2})^2}$$

$$\left(\frac{(ab)^{-1}}{a^2b^{-3}}\right)^{-2}$$

$$\frac{p^{-5}(r^3)^2}{(p^2r)^2(p^{-1})^{-2}}$$

$$\left(\frac{(x^3y)^{-1}(x^4y^3)}{(x^2y^{-3})^{-2}}\right)^{-1}$$