

Practice

1. Write as a power with a positive exponent.

a) $5^7 \cdot 5^4 \cdot 5^{-7} =$

b) $\frac{11^2}{11^{-3}} =$

c) $(3^2 \cdot 3^2)^{-2} =$

d) $\left(\frac{8^2}{8^3}\right)^{-4} =$

2. Evaluate.

a) $(7^{-2})^{-1} =$

b) $5^3 \cdot (5^{-2})^2 =$

c) $\left(\frac{4^{-3} \cdot 4^{-1}}{4^{-2}}\right)^2 =$

*Each answer should
be an integer or a
fraction.*

3. Write as a power with a positive exponent.

a) $5^{\frac{3}{4}} \cdot 5^{-\frac{1}{4}} =$

b) $(7^{-0.5} \cdot 7^{2.5})^{-2} =$

c) $\frac{3^{\frac{2}{3}}}{3^{\frac{4}{3}}} =$

d) $\left(\frac{2^{-1.75}}{2^{-0.25}}\right)^3 =$

4. Click the expression that equals 1.

a) $x \cdot x^{-1}$

b) $(a \cdot a^{-1})^3$

c) $\frac{y}{y^{-1}}$

d) $\frac{\left(\frac{1}{x^2}\right)^{-2}}{x^{-1}}$

Remember, $x^0 = 1$

5. Write this expression with positive exponents: $\frac{a}{b^{-1}} =$ _____

6. Simplify. Write an expression with positive exponents where necessary.

a) $3y \cdot y^{-2} \cdot y^4 =$

b) $(4x^3 \cdot 3x^{-4})^2 =$

c) $\frac{25b^3}{10b^{-2}} =$

d) $\frac{(7a^{-3})^2}{a^{-4}} =$

7. Simplify. Write an expression with positive exponents where necessary.

a) $x^{-\frac{1}{2}} \cdot x^{-3} =$

b) $\frac{16a^{\frac{1}{3}}}{24a^{-1}} =$