

Using the Quotient Rule Step by Step Lesson

Find the final value of each quotient below.

a) $\frac{4^4}{4^2}$

b) $\frac{3^5}{3^{-2}}$



Explanation:

In both problems the exponents have the same bases. The Quotient Rule tells us that if each exponent has the same base, we can subtract the power in the denominator from the power in the numerator to find the quotient.

$$\text{a) } \frac{4^4}{4^2} = 4^{4-2} = 4^2$$

$$\text{b) } \frac{3^5}{3^{-2}} = 3^{5--2} = 3^7$$

