

## Using the Quotient Rule in Complex Quotients Step by Step Lesson

Find the quotient.

$$\frac{16x^5}{4x^3}$$



**Explanation:**

**Step 1) Separate into numerical and variable factors:**

$$\frac{16x^5}{4x^3} = \left( \frac{16}{4} \right) \left( \frac{x^5}{x^3} \right)$$

**Step 2) Perform the quotient operation on each factor.**

$$\left( \frac{16}{4} \right) = 4 \quad \left( \frac{x^5}{x^3} \right) \text{ using the quotient rule } x^{5-3} = x^2$$

**Step 3) Combine the factors.**

$$4x^2$$

