

Power of a Quotient Property

$$\left(\frac{a}{b}\right)^m = \frac{a^m}{b^m}$$

When taking a fraction to a power, take the numerator (top) to the power and the denominator (bottom) to the power.

Examples

1. $\left(\frac{2}{3}\right)^4 = \frac{2^4}{3^4} = \frac{16}{81}$

2. $\left(\frac{x}{y}\right)^2 = \frac{x^2}{y^2}$

3. $\left(-\frac{n}{3}\right)^3 = \frac{(-n)^3}{3^3} = \frac{-n^3}{27}$

Try These

1. $\left(\frac{5}{2}\right)^2$

1. _____

2. $\left(-\frac{3}{7}\right)^2$

2. _____

3. $\left(-\frac{x}{y}\right)^6$

3. _____

4. $\left(\frac{4}{n}\right)^3$

4. _____

5. $\left(-\frac{3}{b}\right)^3$

5. _____

6. $\left(\frac{m}{5}\right)^3$

6. _____