

16.2 – Laws of Exponents II

$$\frac{a^m}{a^n} = a^{m-n}$$

$$\left(\frac{a}{b}\right)^m = \frac{a^m}{b^m}, b \neq 0$$

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Evaluate the following.

1. $\frac{(4)^3}{(4)^2} =$

2. $\frac{8^9}{8^3 \cdot 8^5} =$

Simplify the following.

3. $\frac{m^7}{m^4} =$

4. $\frac{x^5}{x^3} =$

5. $\left(\frac{r^3}{s^2}\right)^4 =$

6. $\frac{4^y}{4^6} =$

Use the laws of exponents to solve the following equation.

7. $\frac{3^x}{3^2} = 3^8$