

Laws of Exponents Worksheets

Simplify. Write your answer using only positive exponents.

$$x^{\frac{1}{3}} \times x^{\frac{1}{3}} =$$

$$2x^2 \div \frac{1}{2}x^{\frac{1}{2}} =$$

$$x^{\frac{1}{2}} \times x^{\frac{2}{3}} =$$

$$\frac{3}{4}x^{\frac{1}{2}} \div \frac{1}{2}x^{-\frac{1}{4}} =$$

$$\left(\frac{x^4}{x^{10}}\right)^{\frac{1}{2}} =$$

$$-\frac{1}{4}x^{\frac{3}{4}} \div -2x^{-\frac{1}{4}} =$$

$$\left(\frac{x^6}{y^2}\right)^{\frac{1}{2}} =$$

$$\left(\frac{x^6}{y^2}\right)^{\frac{1}{2}} =$$

$$\frac{7}{8}x^{\frac{1}{2}} \div \frac{1}{2}x^{-\frac{3}{2}} =$$

$$\left(\frac{\frac{6}{x^7}}{\frac{2}{x^7}}\right)^2 =$$

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Simplify. Write your answer using only positive exponents.

$$x^{\frac{1}{3}} \times x^{\frac{1}{3}} = x^{\frac{2}{3}}$$

$$2x^2 \div \frac{1}{2}x^{\frac{1}{2}} = 4x^{\frac{3}{2}}$$

$$x^{\frac{1}{2}} \times x^{\frac{2}{3}} = x^{\frac{7}{6}}$$

$$\frac{3}{4}x^{\frac{1}{2}} \div \frac{1}{2}x^{-\frac{1}{4}} = \frac{3}{2}x^{\frac{3}{4}}$$

$$\left(\frac{x^4}{x^{10}}\right)^{\frac{1}{2}} = \frac{1}{x^3}$$

$$-\frac{1}{4}x^{\frac{3}{4}} \div -2x^{-\frac{1}{4}} = \frac{x}{8}$$

$$\left(\frac{x^6}{y^2}\right)^{\frac{1}{2}} = \frac{x^3}{y}$$

$$\left(\frac{x^6}{y^2}\right)^{\frac{1}{2}} = \frac{x^3}{y}$$

$$\frac{7}{8}x^{\frac{1}{2}} \div \frac{1}{2}x^{-\frac{3}{2}} = \frac{7}{4}x^2$$

$$\left(\frac{x^{\frac{6}{7}}}{x^{\frac{2}{7}}}\right)^2 = x^{\frac{8}{7}}$$