



Simplifying Fraction Exponent Expressions
(Division)

Name: _____

Date: _____ Score: _____

$$\frac{\left(\frac{4}{9}\right)^8 \cdot \left(\frac{4}{9}\right) \cdot \left(\frac{4}{9}\right)^{-10}}{\left(\frac{4}{9}\right)^7}$$

$$\frac{\left(\frac{4}{9}\right)^6 \cdot \left(\frac{4}{9}\right)^5 \cdot \left(\frac{4}{9}\right) \cdot \left(\frac{4}{9}\right)^{-3}}{\left(\frac{4}{9}\right)^8 \cdot \left(\frac{4}{9}\right)^{-3}}$$

$$\left(\frac{3}{8}\right)^{10} \cdot \left(\frac{3}{8}\right)^{-6} \cdot \left(\frac{3}{8}\right)^{-6}$$

$$\frac{\left(\frac{1}{6}\right)^{-4} \cdot \left(\frac{1}{6}\right)^{-7} \cdot \left(\frac{1}{6}\right)^{-1} \cdot \left(\frac{1}{6}\right)^5}{\left(\frac{1}{6}\right)^7 \cdot \left(\frac{1}{6}\right)^{-6}}$$

$$\frac{\left(\frac{2}{7}\right) \cdot \left(\frac{2}{7}\right)^{-5} \cdot \left(\frac{2}{7}\right)^9 \cdot \left(\frac{2}{7}\right)^7}{\left(\frac{2}{7}\right)^8 \cdot \left(\frac{2}{7}\right)^6}$$

$$\frac{\left(\frac{3}{8}\right)^{-8} \cdot \left(\frac{3}{8}\right)^7 \cdot \left(\frac{3}{8}\right)^{-4}}{\left(\frac{3}{8}\right)^{-8}}$$

$$\frac{\left(\frac{1}{9}\right)^{-7} \cdot \left(\frac{1}{9}\right)^4 \cdot \left(\frac{1}{9}\right)^5}{\left(\frac{1}{9}\right)^{-6}}$$

$$\left(\frac{4}{5}\right)^{-5} \cdot \left(\frac{4}{5}\right)^{-5} \cdot \left(\frac{4}{5}\right)^{-3}$$

$$\left(\frac{1}{2}\right)^2 \cdot \left(\frac{1}{2}\right)^9 \cdot \left(\frac{1}{2}\right)^{10}$$

$$\frac{\left(\frac{3}{7}\right)^5 \cdot \left(\frac{3}{7}\right)^4 \cdot \left(\frac{3}{7}\right)^{-8}}{\left(\frac{3}{7}\right)^6}$$

$$\frac{\left(\frac{1}{6}\right)^9 \cdot \left(\frac{1}{6}\right)^{-9} \cdot \left(\frac{1}{6}\right)^{-5}}{\left(\frac{1}{6}\right)^{-4}}$$

$$\left(\frac{2}{3}\right)^9 \cdot \left(\frac{2}{3}\right)^{-9} \cdot \left(\frac{2}{3}\right)$$

$$\frac{\left(\frac{1}{2}\right)^{-5} \cdot \left(\frac{1}{2}\right)^6 \cdot \left(\frac{1}{2}\right)^{-2} \cdot \left(\frac{1}{2}\right)^{-2}}{\left(\frac{1}{2}\right)^{-5} \cdot \left(\frac{1}{2}\right)}$$

$$\left(\frac{1}{6}\right)^{-6} \cdot \left(\frac{1}{6}\right)^{-4} \cdot \left(\frac{1}{6}\right)^4$$

$$\frac{\left(\frac{4}{5}\right)^{-4} \cdot \left(\frac{4}{5}\right)^8 \cdot \left(\frac{4}{5}\right)^{-5}}{\left(\frac{4}{5}\right)^6}$$



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$$\frac{\left(\frac{4}{9}\right)^8 \cdot \left(\frac{4}{9}\right) \cdot \left(\frac{4}{9}\right)^{-10}}{\left(\frac{4}{9}\right)^7}$$
$$\left(\frac{4}{9}\right)^{-8}$$

$$\frac{\left(\frac{4}{9}\right)^6 \cdot \left(\frac{4}{9}\right)^5 \cdot \left(\frac{4}{9}\right) \cdot \left(\frac{4}{9}\right)^{-3}}{\left(\frac{4}{9}\right)^8 \cdot \left(\frac{4}{9}\right)^{-3}}$$
$$\left(\frac{4}{9}\right)^4$$

$$\frac{\left(\frac{3}{8}\right)^{10} \cdot \left(\frac{3}{8}\right)^{-6} \cdot \left(\frac{3}{8}\right)^{-6}}{\left(\frac{3}{8}\right)^{-2}}$$

$$\frac{\left(\frac{1}{6}\right)^{-4} \cdot \left(\frac{1}{6}\right)^{-7} \cdot \left(\frac{1}{6}\right)^{-1} \cdot \left(\frac{1}{6}\right)^5}{\left(\frac{1}{6}\right)^7 \cdot \left(\frac{1}{6}\right)^{-6}}$$
$$\left(\frac{1}{6}\right)^{-8}$$

$$\frac{\left(\frac{2}{7}\right) \cdot \left(\frac{2}{7}\right)^{-5} \cdot \left(\frac{2}{7}\right)^9 \cdot \left(\frac{2}{7}\right)^7}{\left(\frac{2}{7}\right)^8 \cdot \left(\frac{2}{7}\right)^6}$$
$$\left(\frac{2}{7}\right)^{-2}$$

$$\frac{\left(\frac{3}{8}\right)^{-8} \cdot \left(\frac{3}{8}\right)^7 \cdot \left(\frac{3}{8}\right)^{-4}}{\left(\frac{3}{8}\right)^{-8}}$$
$$\left(\frac{3}{8}\right)^3$$

$$\frac{\left(\frac{1}{9}\right)^{-7} \cdot \left(\frac{1}{9}\right)^4 \cdot \left(\frac{1}{9}\right)^5}{\left(\frac{1}{9}\right)^{-6}}$$
$$\left(\frac{1}{9}\right)^8$$

$$\frac{\left(\frac{4}{5}\right)^{-5} \cdot \left(\frac{4}{5}\right)^{-5} \cdot \left(\frac{4}{5}\right)^{-3}}{\left(\frac{4}{5}\right)^{-13}}$$

$$\frac{\left(\frac{1}{2}\right)^2 \cdot \left(\frac{1}{2}\right)^9 \cdot \left(\frac{1}{2}\right)^{10}}{\left(\frac{1}{2}\right)^{21}}$$

$$\frac{\left(\frac{3}{7}\right)^5 \cdot \left(\frac{3}{7}\right)^4 \cdot \left(\frac{3}{7}\right)^{-8}}{\left(\frac{3}{7}\right)^6}$$
$$\left(\frac{3}{7}\right)^{-5}$$

$$\frac{\left(\frac{1}{6}\right)^9 \cdot \left(\frac{1}{6}\right)^{-9} \cdot \left(\frac{1}{6}\right)^{-5}}{\left(\frac{1}{6}\right)^{-4}}$$
$$\left(\frac{1}{6}\right)^{-1}$$

$$\frac{\left(\frac{2}{3}\right)^9 \cdot \left(\frac{2}{3}\right)^{-9} \cdot \left(\frac{2}{3}\right)}{\left(\frac{2}{3}\right)}$$

$$\frac{\left(\frac{1}{2}\right)^{-5} \cdot \left(\frac{1}{2}\right)^6 \cdot \left(\frac{1}{2}\right)^{-2} \cdot \left(\frac{1}{2}\right)^{-2}}{\left(\frac{1}{2}\right)^{-5} \cdot \left(\frac{1}{2}\right)}$$
$$\left(\frac{1}{2}\right)$$

$$\frac{\left(\frac{1}{6}\right)^{-6} \cdot \left(\frac{1}{6}\right)^{-4} \cdot \left(\frac{1}{6}\right)^4}{\left(\frac{1}{6}\right)^{-6}}$$

$$\frac{\left(\frac{4}{5}\right)^{-4} \cdot \left(\frac{4}{5}\right)^8 \cdot \left(\frac{4}{5}\right)^{-5}}{\left(\frac{4}{5}\right)^6}$$
$$\left(\frac{4}{5}\right)^{-7}$$