



Simplifying Fraction Exponent Expressions (Division)

Name: _____

Date: _____ Score: _____

$$\left(\frac{3}{7}\right)^{-2} \cdot \left(\frac{3}{7}\right)^{-2} \cdot \left(\frac{3}{7}\right)^{-6}$$

$$\frac{\left(\frac{1}{5}\right)^4 \cdot \left(\frac{1}{5}\right)^4 \cdot \left(\frac{1}{5}\right)^{-2} \cdot \left(\frac{1}{5}\right)^{-8}}{\left(\frac{1}{5}\right)^{10} \cdot \left(\frac{1}{5}\right)^{-3}}$$

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

$$\left(\frac{1}{3}\right)^{10} \cdot \left(\frac{1}{3}\right)^{-10} \cdot \left(\frac{1}{3}\right)^{-6}$$

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

$$\left(\frac{1}{5}\right)^9 \cdot \left(\frac{1}{5}\right)^{-3} \cdot \left(\frac{1}{5}\right)^{-4}$$

$$\frac{\left(\frac{1}{4}\right)^{-2} \cdot \left(\frac{1}{4}\right)^7 \cdot \left(\frac{1}{4}\right)^2 \cdot \left(\frac{1}{4}\right)^{-3}}{\left(\frac{1}{4}\right)^{-7} \cdot \left(\frac{1}{4}\right)^4}$$

$$\frac{\left(\frac{1}{9}\right)^8 \cdot \left(\frac{1}{9}\right)^4 \cdot \left(\frac{1}{9}\right)^{-1} \cdot \left(\frac{1}{9}\right)^8}{\left(\frac{1}{9}\right) \cdot \left(\frac{1}{9}\right)^{11}}$$

$$\frac{\left(\frac{1}{2}\right)^{-3} \cdot \left(\frac{1}{2}\right)^5 \cdot \left(\frac{1}{2}\right)^7 \cdot \left(\frac{1}{2}\right)^2}{\left(\frac{1}{2}\right)^{-9} \cdot \left(\frac{1}{2}\right)^{10}}$$

$$\frac{\left(\frac{1}{4}\right)^7 \cdot \left(\frac{1}{4}\right)^{-2} \cdot \left(\frac{1}{4}\right)^{-5} \cdot \left(\frac{1}{4}\right)^{-5}}{\left(\frac{1}{4}\right)^6 \cdot \left(\frac{1}{4}\right)^{-2}}$$

$$\frac{\left(\frac{4}{7}\right)^{-10} \cdot \left(\frac{4}{7}\right)^6 \cdot \left(\frac{4}{7}\right)^{-1} \cdot \left(\frac{4}{7}\right)^{-9}}{\left(\frac{4}{7}\right)^{-9} \cdot \left(\frac{4}{7}\right)^{-3}}$$

$$\left(\frac{2}{5}\right)^2 \cdot \left(\frac{2}{5}\right)^{-5} \cdot \left(\frac{2}{5}\right)^{-3}$$

$$\frac{\left(\frac{1}{9}\right) \cdot \left(\frac{1}{9}\right)^5 \cdot \left(\frac{1}{9}\right)^{-3}}{\left(\frac{1}{9}\right)^{-6}}$$

$$\frac{\left(\frac{1}{8}\right)^2 \cdot \left(\frac{1}{8}\right)^{10} \cdot \left(\frac{1}{8}\right)^{10}}{\left(\frac{1}{8}\right)^8}$$

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



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$$\frac{\left(\frac{3}{7}\right)^{-2} \cdot \left(\frac{3}{7}\right)^{-2} \cdot \left(\frac{3}{7}\right)^{-6}}{\left(\frac{3}{7}\right)^{-10}}$$

$$\frac{\left(\frac{1}{5}\right)^4 \cdot \left(\frac{1}{5}\right)^4 \cdot \left(\frac{1}{5}\right)^{-2} \cdot \left(\frac{1}{5}\right)^{-8}}{\left(\frac{1}{5}\right)^{10} \cdot \left(\frac{1}{5}\right)^{-3}} \cdot \left(\frac{1}{5}\right)^{-9}$$

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

$$\frac{\left(\frac{1}{3}\right)^{10} \cdot \left(\frac{1}{3}\right)^{-10} \cdot \left(\frac{1}{3}\right)^{-6}}{\left(\frac{1}{3}\right)^{-6}}$$

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

$$\frac{\left(\frac{1}{5}\right)^9 \cdot \left(\frac{1}{5}\right)^{-3} \cdot \left(\frac{1}{5}\right)^{-4}}{\left(\frac{1}{5}\right)^2}$$

$$\frac{\left(\frac{1}{4}\right)^{-2} \cdot \left(\frac{1}{4}\right)^7 \cdot \left(\frac{1}{4}\right)^2 \cdot \left(\frac{1}{4}\right)^{-3}}{\left(\frac{1}{4}\right)^{-7} \cdot \left(\frac{1}{4}\right)^4} \cdot \left(\frac{1}{4}\right)^7$$

$$\frac{\left(\frac{1}{9}\right)^8 \cdot \left(\frac{1}{9}\right)^4 \cdot \left(\frac{1}{9}\right)^{-1} \cdot \left(\frac{1}{9}\right)^8}{\left(\frac{1}{9}\right) \cdot \left(\frac{1}{9}\right)^{11}} \cdot \left(\frac{1}{9}\right)^7$$

$$\frac{\left(\frac{1}{2}\right)^{-3} \cdot \left(\frac{1}{2}\right)^5 \cdot \left(\frac{1}{2}\right)^7 \cdot \left(\frac{1}{2}\right)^2}{\left(\frac{1}{2}\right)^{-9} \cdot \left(\frac{1}{2}\right)^{10}} \cdot \left(\frac{1}{2}\right)^{10}$$

$$\frac{\left(\frac{1}{4}\right)^7 \cdot \left(\frac{1}{4}\right)^{-2} \cdot \left(\frac{1}{4}\right)^{-5} \cdot \left(\frac{1}{4}\right)^{-5}}{\left(\frac{1}{4}\right)^6 \cdot \left(\frac{1}{4}\right)^{-2}} \cdot \left(\frac{1}{4}\right)^{-9}$$

$$\frac{\left(\frac{4}{7}\right)^{-10} \cdot \left(\frac{4}{7}\right)^6 \cdot \left(\frac{4}{7}\right)^{-1} \cdot \left(\frac{4}{7}\right)^{-9}}{\left(\frac{4}{7}\right)^{-9} \cdot \left(\frac{4}{7}\right)^{-3}} \cdot \left(\frac{4}{7}\right)^{-2}$$

$$\frac{\left(\frac{2}{5}\right)^2 \cdot \left(\frac{2}{5}\right)^{-5} \cdot \left(\frac{2}{5}\right)^{-3}}{\left(\frac{2}{5}\right)^{-6}}$$

$$\frac{\left(\frac{1}{9}\right) \cdot \left(\frac{1}{9}\right)^5 \cdot \left(\frac{1}{9}\right)^{-3}}{\left(\frac{1}{9}\right)^{-6}} \cdot \left(\frac{1}{9}\right)^9$$

$$\frac{\left(\frac{1}{8}\right)^2 \cdot \left(\frac{1}{8}\right)^{10} \cdot \left(\frac{1}{8}\right)^{10}}{\left(\frac{1}{8}\right)^8} \cdot \left(\frac{1}{8}\right)^{14}$$

$$\frac{\left(\frac{3}{8}\right)^{-5} \cdot \left(\frac{3}{8}\right)^{-6} \cdot \left(\frac{3}{8}\right)^{-7}}{\left(\frac{3}{8}\right)^{-18}}$$