

Simplifying Fraction Exponent Expressions (Division)

Name: _____

Date: _____ Score: _____

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

$$\frac{\left(\frac{3}{5}\right) \cdot \left(\frac{3}{5}\right)^2 \cdot \left(\frac{3}{5}\right)^{11}}{\left(\frac{3}{5}\right)^9}$$

$$\frac{\left(\frac{1}{7}\right)^7 \cdot \left(\frac{1}{7}\right)^8 \cdot \left(\frac{1}{7}\right)^7}{\left(\frac{1}{7}\right)^2}$$

$$\frac{\left(\frac{1}{6}\right)^6 \cdot \left(\frac{1}{6}\right)^2 \cdot \left(\frac{1}{6}\right)^5 \cdot \left(\frac{1}{6}\right)^{11}}{\left(\frac{1}{6}\right)^{10} \cdot \left(\frac{1}{6}\right)^{-2}}$$

$$\frac{\left(\frac{4}{7}\right)^{11} \cdot \left(\frac{4}{7}\right)^{-7} \cdot \left(\frac{4}{7}\right)^{-2} \cdot \left(\frac{4}{7}\right)^{-9}}{\left(\frac{4}{7}\right)^4 \cdot \left(\frac{4}{7}\right)^8}$$

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

$$\frac{\left(\frac{1}{3}\right)^{11} \cdot \left(\frac{1}{3}\right)^{-8} \cdot \left(\frac{1}{3}\right)^{-4}}{\left(\frac{1}{3}\right)^3}$$

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

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

$$\frac{\left(\frac{2}{5}\right)^{-6} \cdot \left(\frac{2}{5}\right) \cdot \left(\frac{2}{5}\right)^{-7}}{\left(\frac{2}{5}\right)^{-3}}$$

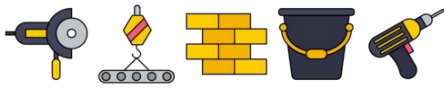
$$\frac{\left(\frac{4}{9}\right)^{-2} \cdot \left(\frac{4}{9}\right)^9 \cdot \left(\frac{4}{9}\right)^7 \cdot \left(\frac{4}{9}\right)^{-3}}{\left(\frac{4}{9}\right)^{-7} \cdot \left(\frac{4}{9}\right)^3}$$

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

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

$$\left(\frac{3}{7}\right)^8 \cdot \left(\frac{3}{7}\right)^{-9} \cdot \left(\frac{3}{7}\right)^{-9}$$

$$\frac{\left(\frac{4}{5}\right)^{11} \cdot \left(\frac{4}{5}\right)^{11} \cdot \left(\frac{4}{5}\right)^{-5} \cdot \left(\frac{4}{5}\right)^8}{\left(\frac{4}{5}\right)^{-6} \cdot \left(\frac{4}{5}\right)^{-4}}$$



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

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

$$\frac{\left(\frac{3}{5}\right) \cdot \left(\frac{3}{5}\right)^2 \cdot \left(\frac{3}{5}\right)^{11}}{\left(\frac{3}{5}\right)^9}$$

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

$$\frac{\left(\frac{1}{7}\right)^7 \cdot \left(\frac{1}{7}\right)^8 \cdot \left(\frac{1}{7}\right)^7}{\left(\frac{1}{7}\right)^2}$$

$$\left(\frac{1}{7}\right)^{20}$$

$$\frac{\left(\frac{1}{6}\right)^6 \cdot \left(\frac{1}{6}\right)^2 \cdot \left(\frac{1}{6}\right)^5 \cdot \left(\frac{1}{6}\right)^{11}}{\left(\frac{1}{6}\right)^{10} \cdot \left(\frac{1}{6}\right)^{-2}}$$

$$\left(\frac{1}{6}\right)^{16}$$

$$\frac{\left(\frac{4}{7}\right)^{11} \cdot \left(\frac{4}{7}\right)^{-7} \cdot \left(\frac{4}{7}\right)^{-2} \cdot \left(\frac{4}{7}\right)^{-9}}{\left(\frac{4}{7}\right)^4 \cdot \left(\frac{4}{7}\right)^8}$$

$$\left(\frac{4}{7}\right)^{-19}$$

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

$$\frac{\left(\frac{1}{3}\right)^{11} \cdot \left(\frac{1}{3}\right)^{-8} \cdot \left(\frac{1}{3}\right)^{-4}}{\left(\frac{1}{3}\right)^3}$$

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

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

$$\left(\frac{3}{5}\right)^{36}$$

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

$$\left(\frac{1}{2}\right)^{18}$$

$$\frac{\left(\frac{2}{5}\right)^{-6} \cdot \left(\frac{2}{5}\right) \cdot \left(\frac{2}{5}\right)^{-7}}{\left(\frac{2}{5}\right)^{-3}}$$

$$\left(\frac{2}{5}\right)^{-9}$$

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

$$\left(\frac{4}{9}\right)^{15}$$

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

$$\left(\frac{1}{5}\right)^{14}$$

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

$$\left(\frac{1}{7}\right)^{11}$$

$$\frac{\left(\frac{3}{7}\right)^8 \cdot \left(\frac{3}{7}\right)^{-9} \cdot \left(\frac{3}{7}\right)^{-9}}{\left(\frac{3}{7}\right)^{-10}}$$

$$\frac{\left(\frac{4}{5}\right)^{11} \cdot \left(\frac{4}{5}\right)^{11} \cdot \left(\frac{4}{5}\right)^{-5} \cdot \left(\frac{4}{5}\right)^8}{\left(\frac{4}{5}\right)^{-6} \cdot \left(\frac{4}{5}\right)^{-4}}$$

$$\left(\frac{4}{5}\right)^{35}$$