



Simplifying Fraction Exponent Expressions (Division)

Name: _____

Date: _____ Score: _____

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

$$\left(\frac{1}{3}\right)^4 \cdot \left(\frac{1}{3}\right)^7 \cdot \left(\frac{1}{3}\right)^5$$

$$\frac{\left(\frac{3}{5}\right)^{-6} \cdot \left(\frac{3}{5}\right)^{10} \cdot \left(\frac{3}{5}\right)^{11}}{\left(\frac{3}{5}\right)^2}$$

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

$$\frac{\left(\frac{2}{5}\right)^{-2} \cdot \left(\frac{2}{5}\right)^7 \cdot \left(\frac{2}{5}\right)^{-3}}{\left(\frac{2}{5}\right)^4}$$

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

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

$$\frac{\left(\frac{1}{6}\right)^{-9} \cdot \left(\frac{1}{6}\right)^4 \cdot \left(\frac{1}{6}\right)^{10} \cdot \left(\frac{1}{6}\right)^{-5}}{\left(\frac{1}{6}\right)^{-3} \cdot \left(\frac{1}{6}\right)^{-6}}$$

$$\frac{\left(\frac{1}{6}\right)^3 \cdot \left(\frac{1}{6}\right)^2 \cdot \left(\frac{1}{6}\right)^5 \cdot \left(\frac{1}{6}\right)^{-1}}{\left(\frac{1}{6}\right)^{-2} \cdot \left(\frac{1}{6}\right)^9}$$

$$\frac{\left(\frac{2}{5}\right)^{11} \cdot \left(\frac{2}{5}\right) \cdot \left(\frac{2}{5}\right)^{-4}}{\left(\frac{2}{5}\right)^{-5}}$$

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

$$\frac{\left(\frac{4}{7}\right)^{-4} \cdot \left(\frac{4}{7}\right)^2 \cdot \left(\frac{4}{7}\right)^{-2} \cdot \left(\frac{4}{7}\right)^{-8}}{\left(\frac{4}{7}\right)^9 \cdot \left(\frac{4}{7}\right)^{-1}}$$

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

$$\frac{\left(\frac{4}{7}\right)^{11} \cdot \left(\frac{4}{7}\right)^{-9} \cdot \left(\frac{4}{7}\right)^{10}}{\left(\frac{4}{7}\right)^{-6}}$$

$$\left(\frac{3}{8}\right)^{11} \cdot \left(\frac{3}{8}\right)^{-7} \cdot \left(\frac{3}{8}\right)^{-7}$$



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$$\frac{\left(\frac{1}{4}\right)^{10} \cdot \left(\frac{1}{4}\right)^4 \cdot \left(\frac{1}{4}\right)}{\left(\frac{1}{4}\right)^{15}}$$

$$\frac{\left(\frac{1}{3}\right)^4 \cdot \left(\frac{1}{3}\right)^7 \cdot \left(\frac{1}{3}\right)^5}{\left(\frac{1}{3}\right)^{16}}$$

$$\frac{\left(\frac{3}{5}\right)^{-6} \cdot \left(\frac{3}{5}\right)^{10} \cdot \left(\frac{3}{5}\right)^{11}}{\left(\frac{3}{5}\right)^2} = \left(\frac{3}{5}\right)^{13}$$

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

$$\frac{\left(\frac{2}{5}\right)^{-2} \cdot \left(\frac{2}{5}\right)^7 \cdot \left(\frac{2}{5}\right)^{-3}}{\left(\frac{2}{5}\right)^4} = \left(\frac{2}{5}\right)^{-2}$$

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

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

$$\frac{\left(\frac{1}{6}\right)^{-9} \cdot \left(\frac{1}{6}\right)^4 \cdot \left(\frac{1}{6}\right)^{10} \cdot \left(\frac{1}{6}\right)^{-5}}{\left(\frac{1}{6}\right)^{-3} \cdot \left(\frac{1}{6}\right)^{-6}} = \left(\frac{1}{6}\right)^9$$

$$\frac{\left(\frac{1}{6}\right)^3 \cdot \left(\frac{1}{6}\right)^2 \cdot \left(\frac{1}{6}\right)^5 \cdot \left(\frac{1}{6}\right)^{-1}}{\left(\frac{1}{6}\right)^{-2} \cdot \left(\frac{1}{6}\right)^9} = \left(\frac{1}{6}\right)^2$$

$$\frac{\left(\frac{2}{5}\right)^{11} \cdot \left(\frac{2}{5}\right) \cdot \left(\frac{2}{5}\right)^{-4}}{\left(\frac{2}{5}\right)^{-5}} = \left(\frac{2}{5}\right)^{13}$$

$$\frac{\left(\frac{2}{3}\right)^2 \cdot \left(\frac{2}{3}\right)^{-9} \cdot \left(\frac{2}{3}\right)}{\left(\frac{2}{3}\right)^{10}} = \left(\frac{2}{3}\right)^{-16}$$

$$\frac{\left(\frac{4}{7}\right)^{-4} \cdot \left(\frac{4}{7}\right)^2 \cdot \left(\frac{4}{7}\right)^{-2} \cdot \left(\frac{4}{7}\right)^{-8}}{\left(\frac{4}{7}\right)^9 \cdot \left(\frac{4}{7}\right)^{-1}} = \left(\frac{4}{7}\right)^{-20}$$

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

$$\frac{\left(\frac{4}{7}\right)^{11} \cdot \left(\frac{4}{7}\right)^{-9} \cdot \left(\frac{4}{7}\right)^{10}}{\left(\frac{4}{7}\right)^{-6}} = \left(\frac{4}{7}\right)^{18}$$

$$\frac{\left(\frac{3}{8}\right)^{11} \cdot \left(\frac{3}{8}\right)^{-7} \cdot \left(\frac{3}{8}\right)^{-7}}{\left(\frac{3}{8}\right)^{-3}} = \left(\frac{3}{8}\right)^{-3}$$