



## Simplifying Fraction Exponent Expressions (Division)

Name: \_\_\_\_\_

Date: \_\_\_\_\_ Score: \_\_\_\_\_

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

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

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

$$\frac{\left(\frac{2}{7}\right)^6 \cdot \left(\frac{2}{7}\right)^{-5} \cdot \left(\frac{2}{7}\right)^{-7} \cdot \left(\frac{2}{7}\right)^3}{\left(\frac{2}{7}\right)^{-4} \cdot \left(\frac{2}{7}\right)^{-2}}$$

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

$$\frac{\left(\frac{4}{9}\right)^{10} \cdot \left(\frac{4}{9}\right)^{11} \cdot \left(\frac{4}{9}\right)^{-5} \cdot \left(\frac{4}{9}\right)^{-4}}{\left(\frac{4}{9}\right)^{-1} \cdot \left(\frac{4}{9}\right)^{-8}}$$

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

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

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

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

$$\frac{\left(\frac{2}{9}\right)^{-10} \cdot \left(\frac{2}{9}\right)^2 \cdot \left(\frac{2}{9}\right)^{-5} \cdot \left(\frac{2}{9}\right)^4}{\left(\frac{2}{9}\right)^6 \cdot \left(\frac{2}{9}\right)^{-10}}$$

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

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

$$\left(\frac{3}{8}\right)^6 \cdot \left(\frac{3}{8}\right)^{-1} \cdot \left(\frac{3}{8}\right)$$

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



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

$$\frac{\left(\frac{1}{7}\right)^{-4} \cdot \left(\frac{1}{7}\right)^9 \cdot \left(\frac{1}{7}\right)^{-4} \cdot \left(\frac{1}{7}\right)^{-2}}{\left(\frac{1}{7}\right)^{-10} \cdot \left(\frac{1}{7}\right)^{-4}}$$
$$\left(\frac{1}{7}\right)^{13}$$

$$\frac{\left(\frac{1}{2}\right)^{10} \cdot \left(\frac{1}{2}\right) \cdot \left(\frac{1}{2}\right)^6}{\left(\frac{1}{2}\right)^{-2}}$$
$$\left(\frac{1}{2}\right)^{19}$$

$$\frac{\left(\frac{2}{7}\right)^6 \cdot \left(\frac{2}{7}\right)^{-5} \cdot \left(\frac{2}{7}\right)^{-7} \cdot \left(\frac{2}{7}\right)^3}{\left(\frac{2}{7}\right)^{-4} \cdot \left(\frac{2}{7}\right)^{-2}}$$
$$\left(\frac{2}{7}\right)^3$$

$$\frac{\left(\frac{4}{5}\right)^2 \cdot \left(\frac{4}{5}\right)^{-2} \cdot \left(\frac{4}{5}\right)^9 \cdot \left(\frac{4}{5}\right)^9}{\left(\frac{4}{5}\right)^{-10} \cdot \left(\frac{4}{5}\right)^4}$$
$$\left(\frac{4}{5}\right)^{24}$$

$$\frac{\left(\frac{4}{9}\right)^{10} \cdot \left(\frac{4}{9}\right)^{11} \cdot \left(\frac{4}{9}\right)^{-5} \cdot \left(\frac{4}{9}\right)^{-4}}{\left(\frac{4}{9}\right)^{-1} \cdot \left(\frac{4}{9}\right)^{-8}}$$
$$\left(\frac{4}{9}\right)^{21}$$

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

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

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

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

$$\frac{\left(\frac{2}{9}\right)^{-10} \cdot \left(\frac{2}{9}\right)^2 \cdot \left(\frac{2}{9}\right)^{-5} \cdot \left(\frac{2}{9}\right)^4}{\left(\frac{2}{9}\right)^6 \cdot \left(\frac{2}{9}\right)^{-10}}$$
$$\left(\frac{2}{9}\right)^{-5}$$

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

$$\frac{\left(\frac{1}{3}\right)^{-7} \cdot \left(\frac{1}{3}\right)^{-10} \cdot \left(\frac{1}{3}\right)^{-9}}{\left(\frac{1}{3}\right)^{-10}}$$
$$\left(\frac{1}{3}\right)^{-16}$$

$$\frac{\left(\frac{3}{8}\right)^6 \cdot \left(\frac{3}{8}\right)^{-1} \cdot \left(\frac{3}{8}\right)}{\left(\frac{3}{8}\right)^6}$$
$$\left(\frac{3}{8}\right)^6$$

$$\frac{\left(\frac{1}{3}\right) \cdot \left(\frac{1}{3}\right)^7 \cdot \left(\frac{1}{3}\right)^5}{\left(\frac{1}{3}\right)^9}$$
$$\left(\frac{1}{3}\right)^4$$