



## Simplificando os expoentes de fração (divisão)

Nome: \_\_\_\_\_

Encontro: Data: \_\_\_\_\_ Pontuação: \_\_\_\_\_

$$\frac{\left(\frac{3}{7}\right)^9 \cdot \left(\frac{3}{7}\right)^{-8} \cdot \left(\frac{3}{7}\right) \cdot \left(\frac{3}{7}\right)^2}{\left(\frac{3}{7}\right)^{-3} \cdot \left(\frac{3}{7}\right)^4}$$

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

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

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

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

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

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

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

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

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

$$\left(\frac{3}{8}\right)^7 \cdot \left(\frac{3}{8}\right)^{-2} \cdot \left(\frac{3}{8}\right)^3$$

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

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

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

$$\frac{\left(\frac{2}{5}\right)^4 \cdot \left(\frac{2}{5}\right)^{-6} \cdot \left(\frac{2}{5}\right)^{-7}}{\left(\frac{2}{5}\right)^8}$$



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$$\frac{\left(\frac{3}{7}\right)^9 \cdot \left(\frac{3}{7}\right)^{-8} \cdot \left(\frac{3}{7}\right) \cdot \left(\frac{3}{7}\right)^2}{\left(\frac{3}{7}\right)^{-3} \cdot \left(\frac{3}{7}\right)^4}$$
$$\left(\frac{3}{7}\right)^3$$

$$\frac{\left(\frac{2}{7}\right)^{-7} \cdot \left(\frac{2}{7}\right)^9 \cdot \left(\frac{2}{7}\right)^{-4} \cdot \left(\frac{2}{7}\right)^9}{\left(\frac{2}{7}\right)^{-1} \cdot \left(\frac{2}{7}\right)^{-10}}$$
$$\left(\frac{2}{7}\right)^{18}$$

$$\frac{\left(\frac{4}{7}\right)^{10} \cdot \left(\frac{4}{7}\right)^9 \cdot \left(\frac{4}{7}\right)^{10}}{\left(\frac{4}{7}\right)^3}$$
$$\left(\frac{4}{7}\right)^{26}$$

$$\left(\frac{1}{8}\right)^{-9} \cdot \left(\frac{1}{8}\right)^{-6} \cdot \left(\frac{1}{8}\right)^{-1}$$
$$\left(\frac{1}{8}\right)^{-16}$$

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

$$\frac{\left(\frac{1}{2}\right)^2 \cdot \left(\frac{1}{2}\right)^8 \cdot \left(\frac{1}{2}\right)^2}{\left(\frac{1}{2}\right)^{-3}}$$
$$\left(\frac{1}{2}\right)^{15}$$

$$\left(\frac{2}{9}\right)^8 \cdot \left(\frac{2}{9}\right)^6 \cdot \left(\frac{2}{9}\right)^{-2}$$
$$\left(\frac{2}{9}\right)^{12}$$

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

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

$$\left(\frac{1}{4}\right)^9 \cdot \left(\frac{1}{4}\right) \cdot \left(\frac{1}{4}\right)^{-10}$$
$$\left(\frac{1}{4}\right)^0$$

$$\left(\frac{3}{8}\right)^7 \cdot \left(\frac{3}{8}\right)^{-2} \cdot \left(\frac{3}{8}\right)^3$$
$$\left(\frac{3}{8}\right)^8$$

$$\frac{\left(\frac{2}{9}\right)^{-10} \cdot \left(\frac{2}{9}\right)^{-3} \cdot \left(\frac{2}{9}\right)^2 \cdot \left(\frac{2}{9}\right)^{-8}}{\left(\frac{2}{9}\right)^{-4} \cdot \left(\frac{2}{9}\right)^{-3}}$$
$$\left(\frac{2}{9}\right)^{-12}$$

$$\frac{\left(\frac{4}{5}\right)^{-10} \cdot \left(\frac{4}{5}\right)^{-9} \cdot \left(\frac{4}{5}\right)^{-10}}{\left(\frac{4}{5}\right)^{11}}$$
$$\left(\frac{4}{5}\right)^{-40}$$

$$\frac{\left(\frac{4}{9}\right)^{-7} \cdot \left(\frac{4}{9}\right)^{-10} \cdot \left(\frac{4}{9}\right)^{-10}}{\left(\frac{4}{9}\right)^8}$$
$$\left(\frac{4}{9}\right)^{-35}$$

$$\frac{\left(\frac{2}{5}\right)^4 \cdot \left(\frac{2}{5}\right)^{-6} \cdot \left(\frac{2}{5}\right)^{-7}}{\left(\frac{2}{5}\right)^8}$$
$$\left(\frac{2}{5}\right)^{-17}$$