



## Simplificando os expoentes de fração (divisão)

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

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

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

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

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

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

$$\left(\frac{3}{8}\right)^{-5} \cdot \left(\frac{3}{8}\right)^{-7} \cdot \left(\frac{3}{8}\right)^{11}$$

$$\frac{\left(\frac{1}{8}\right)^4 \cdot \left(\frac{1}{8}\right)^2 \cdot \left(\frac{1}{8}\right)^{-6}}{\left(\frac{1}{8}\right)^{10}}$$

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

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

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

$$\frac{\left(\frac{1}{3}\right)^{-1} \cdot \left(\frac{1}{3}\right)^3 \cdot \left(\frac{1}{3}\right)^{11} \cdot \left(\frac{1}{3}\right)^{-8}}{\left(\frac{1}{3}\right)^8 \cdot \left(\frac{1}{3}\right)^5}$$

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

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

$$\frac{\left(\frac{3}{5}\right)^4 \cdot \left(\frac{3}{5}\right)^{11} \cdot \left(\frac{3}{5}\right)^{10}}{\left(\frac{3}{5}\right)^{-9}}$$

$$\frac{\left(\frac{1}{5}\right)^8 \cdot \left(\frac{1}{5}\right)^{-5} \cdot \left(\frac{1}{5}\right)^{-5}}{\left(\frac{1}{5}\right)^{-8}}$$

$$\frac{\left(\frac{1}{3}\right)^{11} \cdot \left(\frac{1}{3}\right)^5 \cdot \left(\frac{1}{3}\right)^{-5} \cdot \left(\frac{1}{3}\right)^{10}}{\left(\frac{1}{3}\right)^{-2} \cdot \left(\frac{1}{3}\right)^{10}}$$



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$$\frac{\left(\frac{1}{7}\right)^7 \cdot \left(\frac{1}{7}\right)^{-7} \cdot \left(\frac{1}{7}\right)^{-10} \cdot \left(\frac{1}{7}\right)^{-2}}{\left(\frac{1}{7}\right)^7 \cdot \left(\frac{1}{7}\right)^{-6}} \quad \left(\frac{1}{7}\right)^{-13}$$

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

$$\frac{\left(\frac{1}{5}\right)^{-1} \cdot \left(\frac{1}{5}\right)^{-9} \cdot \left(\frac{1}{5}\right)^2 \cdot \left(\frac{1}{5}\right)^{-8}}{\left(\frac{1}{5}\right)^3 \cdot \left(\frac{1}{5}\right)^{-4}} \quad \left(\frac{1}{5}\right)^{-15}$$

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

$$\left(\frac{3}{8}\right)^{-5} \cdot \left(\frac{3}{8}\right)^{-7} \cdot \left(\frac{3}{8}\right)^{11} \quad \left(\frac{3}{8}\right)^{-1}$$

$$\frac{\left(\frac{1}{8}\right)^4 \cdot \left(\frac{1}{8}\right)^2 \cdot \left(\frac{1}{8}\right)^{-6}}{\left(\frac{1}{8}\right)^{10}} \quad \left(\frac{1}{8}\right)^{-10}$$

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

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

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

$$\frac{\left(\frac{1}{3}\right)^{-1} \cdot \left(\frac{1}{3}\right)^3 \cdot \left(\frac{1}{3}\right)^{11} \cdot \left(\frac{1}{3}\right)^{-8}}{\left(\frac{1}{3}\right)^8 \cdot \left(\frac{1}{3}\right)^5} \quad \left(\frac{1}{3}\right)^{-8}$$

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

$$\frac{\left(\frac{1}{3}\right)^{10} \cdot \left(\frac{1}{3}\right)^{-5} \cdot \left(\frac{1}{3}\right)^6}{\left(\frac{1}{3}\right)^{-1}} \quad \left(\frac{1}{3}\right)^{12}$$

$$\frac{\left(\frac{3}{5}\right)^4 \cdot \left(\frac{3}{5}\right)^{11} \cdot \left(\frac{3}{5}\right)^{10}}{\left(\frac{3}{5}\right)^{-9}} \quad \left(\frac{3}{5}\right)^{34}$$

$$\frac{\left(\frac{1}{5}\right)^8 \cdot \left(\frac{1}{5}\right)^{-5} \cdot \left(\frac{1}{5}\right)^{-5}}{\left(\frac{1}{5}\right)^{-8}} \quad \left(\frac{1}{5}\right)^6$$

$$\frac{\left(\frac{1}{3}\right)^{11} \cdot \left(\frac{1}{3}\right)^5 \cdot \left(\frac{1}{3}\right)^{-5} \cdot \left(\frac{1}{3}\right)^{10}}{\left(\frac{1}{3}\right)^{-2} \cdot \left(\frac{1}{3}\right)^{10}} \quad \left(\frac{1}{3}\right)^{13}$$