



Simplificando os expoentes de fração (divisão)

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

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

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

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

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

$$\frac{\left(\frac{4}{9}\right)^{-6} \cdot \left(\frac{4}{9}\right)^{-5} \cdot \left(\frac{4}{9}\right)^{10} \cdot \left(\frac{4}{9}\right)^6}{\left(\frac{4}{9}\right)^8 \cdot \left(\frac{4}{9}\right)^2}$$

$$\frac{\left(\frac{1}{3}\right)^{-3} \cdot \left(\frac{1}{3}\right)^{11} \cdot \left(\frac{1}{3}\right)^6}{\left(\frac{1}{3}\right)^{-1}}$$

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

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

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

$$\frac{\left(\frac{1}{2}\right)^{-2} \cdot \left(\frac{1}{2}\right)^{-6} \cdot \left(\frac{1}{2}\right)^{-7} \cdot \left(\frac{1}{2}\right)^4}{\left(\frac{1}{2}\right)^6 \cdot \left(\frac{1}{2}\right)^{-9}}$$

$$\frac{\left(\frac{1}{2}\right)^{11} \cdot \left(\frac{1}{2}\right)^4 \cdot \left(\frac{1}{2}\right)^7 \cdot \left(\frac{1}{2}\right)^6}{\left(\frac{1}{2}\right)^4 \cdot \left(\frac{1}{2}\right)^3}$$

$$\frac{\left(\frac{2}{7}\right)^6 \cdot \left(\frac{2}{7}\right)^3 \cdot \left(\frac{2}{7}\right)^{-9} \cdot \left(\frac{2}{7}\right)^{-1}}{\left(\frac{2}{7}\right)^{-8} \cdot \left(\frac{2}{7}\right)^8}$$

$$\left(\frac{1}{7}\right)^7 \cdot \left(\frac{1}{7}\right)^{11} \cdot \left(\frac{1}{7}\right)^{-10}$$

$$\frac{\left(\frac{2}{9}\right)^8 \cdot \left(\frac{2}{9}\right)^{11} \cdot \left(\frac{2}{9}\right)^{-4} \cdot \left(\frac{2}{9}\right)^{10}}{\left(\frac{2}{9}\right)^9 \cdot \left(\frac{2}{9}\right)^4}$$

$$\frac{\left(\frac{1}{2}\right)^4 \cdot \left(\frac{1}{2}\right)^{-5} \cdot \left(\frac{1}{2}\right)^9}{\left(\frac{1}{2}\right)^{-10}}$$

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



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$$\frac{\left(\frac{1}{2}\right)^{-7} \cdot \left(\frac{1}{2}\right)^{-7} \cdot \left(\frac{1}{2}\right)^{-10}}{\left(\frac{1}{2}\right)^{-24}}$$

$$\frac{\left(\frac{4}{9}\right)^9 \cdot \left(\frac{4}{9}\right)^{-7} \cdot \left(\frac{4}{9}\right)^{10}}{\left(\frac{4}{9}\right)^{12}}$$

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

$$\frac{\left(\frac{4}{9}\right)^{-6} \cdot \left(\frac{4}{9}\right)^{-5} \cdot \left(\frac{4}{9}\right)^{10} \cdot \left(\frac{4}{9}\right)^6}{\left(\frac{4}{9}\right)^8 \cdot \left(\frac{4}{9}\right)^2} \left(\frac{4}{9}\right)^{-5}$$

$$\frac{\left(\frac{1}{3}\right)^{-3} \cdot \left(\frac{1}{3}\right)^{11} \cdot \left(\frac{1}{3}\right)^6}{\left(\frac{1}{3}\right)^{-1}} \left(\frac{1}{3}\right)^{15}$$

$$\frac{\left(\frac{1}{7}\right)^4 \cdot \left(\frac{1}{7}\right)^4 \cdot \left(\frac{1}{7}\right)^{-7} \cdot \left(\frac{1}{7}\right)^7}{\left(\frac{1}{7}\right) \cdot \left(\frac{1}{7}\right)^{-7}} \left(\frac{1}{7}\right)^{14}$$

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

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

$$\frac{\left(\frac{1}{2}\right)^{-2} \cdot \left(\frac{1}{2}\right)^{-6} \cdot \left(\frac{1}{2}\right)^{-7} \cdot \left(\frac{1}{2}\right)^4}{\left(\frac{1}{2}\right)^6 \cdot \left(\frac{1}{2}\right)^{-9}} \left(\frac{1}{2}\right)^{-8}$$

$$\frac{\left(\frac{1}{2}\right)^{11} \cdot \left(\frac{1}{2}\right)^4 \cdot \left(\frac{1}{2}\right)^7 \cdot \left(\frac{1}{2}\right)^6}{\left(\frac{1}{2}\right)^4 \cdot \left(\frac{1}{2}\right)^3} \left(\frac{1}{2}\right)^{21}$$

$$\frac{\left(\frac{2}{7}\right)^6 \cdot \left(\frac{2}{7}\right)^3 \cdot \left(\frac{2}{7}\right)^{-9} \cdot \left(\frac{2}{7}\right)^{-1}}{\left(\frac{2}{7}\right)^{-8} \cdot \left(\frac{2}{7}\right)^8} \left(\frac{2}{7}\right)^{-1}$$

$$\frac{\left(\frac{1}{7}\right)^7 \cdot \left(\frac{1}{7}\right)^{11} \cdot \left(\frac{1}{7}\right)^{-10}}{\left(\frac{1}{7}\right)^8}$$

$$\frac{\left(\frac{2}{9}\right)^8 \cdot \left(\frac{2}{9}\right)^{11} \cdot \left(\frac{2}{9}\right)^{-4} \cdot \left(\frac{2}{9}\right)^{10}}{\left(\frac{2}{9}\right)^9 \cdot \left(\frac{2}{9}\right)^4} \left(\frac{2}{9}\right)^{12}$$

$$\frac{\left(\frac{1}{2}\right)^4 \cdot \left(\frac{1}{2}\right)^{-5} \cdot \left(\frac{1}{2}\right)^9}{\left(\frac{1}{2}\right)^{-10}} \left(\frac{1}{2}\right)^{18}$$

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