



## Simplificando os expoentes de fração (divisão)

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

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

$$\frac{\left(\frac{3}{7}\right)^{-6} \cdot \left(\frac{3}{7}\right)^{-5} \cdot \left(\frac{3}{7}\right)^{-7} \cdot \left(\frac{3}{7}\right)^{-2}}{\left(\frac{3}{7}\right)^{11} \cdot \left(\frac{3}{7}\right)^8}$$

$$\frac{\left(\frac{1}{3}\right)^{-5} \cdot \left(\frac{1}{3}\right)^{-2} \cdot \left(\frac{1}{3}\right)^7}{\left(\frac{1}{3}\right)^5}$$

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

$$\frac{\left(\frac{2}{7}\right)^4 \cdot \left(\frac{2}{7}\right)^8 \cdot \left(\frac{2}{7}\right)^{-10} \cdot \left(\frac{2}{7}\right)^{-10}}{\left(\frac{2}{7}\right)^{-7} \cdot \left(\frac{2}{7}\right)^5}$$

$$\frac{\left(\frac{1}{8}\right)^{10} \cdot \left(\frac{1}{8}\right)^{-6} \cdot \left(\frac{1}{8}\right)^{-2} \cdot \left(\frac{1}{8}\right)^3}{\left(\frac{1}{8}\right)^{-3} \cdot \left(\frac{1}{8}\right)^9}$$

$$\left(\frac{2}{7}\right)^3 \cdot \left(\frac{2}{7}\right)^{-10} \cdot \left(\frac{2}{7}\right)^5$$

$$\frac{\left(\frac{1}{6}\right)^{-7} \cdot \left(\frac{1}{6}\right)^{10} \cdot \left(\frac{1}{6}\right)^2}{\left(\frac{1}{6}\right)^3}$$

$$\frac{\left(\frac{1}{3}\right) \cdot \left(\frac{1}{3}\right)^{-4} \cdot \left(\frac{1}{3}\right)^{11} \cdot \left(\frac{1}{3}\right)^2}{\left(\frac{1}{3}\right)^9 \cdot \left(\frac{1}{3}\right)^9}$$

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

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

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

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

$$\frac{\left(\frac{1}{8}\right)^{-5} \cdot \left(\frac{1}{8}\right)^2 \cdot \left(\frac{1}{8}\right)^{10} \cdot \left(\frac{1}{8}\right)^{-6}}{\left(\frac{1}{8}\right)^{-8} \cdot \left(\frac{1}{8}\right)^{11}}$$

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

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



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$$\frac{\left(\frac{3}{7}\right)^{-6} \cdot \left(\frac{3}{7}\right)^{-5} \cdot \left(\frac{3}{7}\right)^{-7} \cdot \left(\frac{3}{7}\right)^{-2}}{\left(\frac{3}{7}\right)^{11} \cdot \left(\frac{3}{7}\right)^8} \left(\frac{3}{7}\right)^{-39}$$

$$\frac{\left(\frac{1}{3}\right)^{-5} \cdot \left(\frac{1}{3}\right)^{-2} \cdot \left(\frac{1}{3}\right)^7}{\left(\frac{1}{3}\right)^5} \left(\frac{1}{3}\right)^{-5}$$

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

$$\frac{\left(\frac{2}{7}\right)^4 \cdot \left(\frac{2}{7}\right)^8 \cdot \left(\frac{2}{7}\right)^{-10} \cdot \left(\frac{2}{7}\right)^{-10}}{\left(\frac{2}{7}\right)^{-7} \cdot \left(\frac{2}{7}\right)^5} \left(\frac{2}{7}\right)^{-6}$$

$$\frac{\left(\frac{1}{8}\right)^{10} \cdot \left(\frac{1}{8}\right)^{-6} \cdot \left(\frac{1}{8}\right)^{-2} \cdot \left(\frac{1}{8}\right)^3}{\left(\frac{1}{8}\right)^{-3} \cdot \left(\frac{1}{8}\right)^9} \left(\frac{1}{8}\right)^{-1}$$

$$\frac{\left(\frac{2}{7}\right)^3 \cdot \left(\frac{2}{7}\right)^{-10} \cdot \left(\frac{2}{7}\right)^5}{\left(\frac{2}{7}\right)^{-2}}$$

$$\frac{\left(\frac{1}{6}\right)^{-7} \cdot \left(\frac{1}{6}\right)^{10} \cdot \left(\frac{1}{6}\right)^2}{\left(\frac{1}{6}\right)^3} \left(\frac{1}{6}\right)^2$$

$$\frac{\left(\frac{1}{3}\right) \cdot \left(\frac{1}{3}\right)^{-4} \cdot \left(\frac{1}{3}\right)^{11} \cdot \left(\frac{1}{3}\right)^2}{\left(\frac{1}{3}\right)^9 \cdot \left(\frac{1}{3}\right)^9} \left(\frac{1}{3}\right)^{-8}$$

$$\frac{\left(\frac{3}{5}\right)^{-4} \cdot \left(\frac{3}{5}\right)^{-5} \cdot \left(\frac{3}{5}\right)^{-10} \cdot \left(\frac{3}{5}\right)^5}{\left(\frac{3}{5}\right)^9 \cdot \left(\frac{3}{5}\right)^{-1}} \left(\frac{3}{5}\right)^{-22}$$

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

$$\frac{\left(\frac{1}{5}\right)^9 \cdot \left(\frac{1}{5}\right)^2 \cdot \left(\frac{1}{5}\right)^8}{\left(\frac{1}{5}\right)^2} \left(\frac{1}{5}\right)^{17}$$

$$\frac{\left(\frac{1}{3}\right)^{-8} \cdot \left(\frac{1}{3}\right)^{-7} \cdot \left(\frac{1}{3}\right)^3}{\left(\frac{1}{3}\right)^{-2}} \left(\frac{1}{3}\right)^{-10}$$

$$\frac{\left(\frac{1}{8}\right)^{-5} \cdot \left(\frac{1}{8}\right)^2 \cdot \left(\frac{1}{8}\right)^{10} \cdot \left(\frac{1}{8}\right)^{-6}}{\left(\frac{1}{8}\right)^{-8} \cdot \left(\frac{1}{8}\right)^{11}} \left(\frac{1}{8}\right)^{-2}$$

$$\frac{\left(\frac{1}{3}\right)^{-2} \cdot \left(\frac{1}{3}\right)^{-9} \cdot \left(\frac{1}{3}\right)^{-9} \cdot \left(\frac{1}{3}\right)^{-8}}{\left(\frac{1}{3}\right)^{-8} \cdot \left(\frac{1}{3}\right)^2} \left(\frac{1}{3}\right)^{-22}$$

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