



Vereinfachen von Bruchexponenten (Division)

Name: _____

Datum: _____ Ergebnis: _____

$$\frac{\left(\frac{4}{9}\right)^9 \cdot \left(\frac{4}{9}\right)^{-7} \cdot \left(\frac{4}{9}\right)^4}{\left(\frac{4}{9}\right)^{11}}$$

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

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

$$\frac{\left(\frac{2}{5}\right)^{-1} \cdot \left(\frac{2}{5}\right)^{-4} \cdot \left(\frac{2}{5}\right)}{\left(\frac{2}{5}\right)^{-7}}$$

$$\frac{\left(\frac{4}{9}\right)^{-10} \cdot \left(\frac{4}{9}\right)^{11} \cdot \left(\frac{4}{9}\right)^2}{\left(\frac{4}{9}\right)^7}$$

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

$$\frac{\left(\frac{3}{5}\right)^{-1} \cdot \left(\frac{3}{5}\right)^3 \cdot \left(\frac{3}{5}\right)^{-4} \cdot \left(\frac{3}{5}\right)^{-10}}{\left(\frac{3}{5}\right)^5 \cdot \left(\frac{3}{5}\right)^{-7}}$$

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

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

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

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

$$\frac{\left(\frac{1}{7}\right)^{10} \cdot \left(\frac{1}{7}\right)^5 \cdot \left(\frac{1}{7}\right)^{10} \cdot \left(\frac{1}{7}\right)^{-9}}{\left(\frac{1}{7}\right) \cdot \left(\frac{1}{7}\right)^8}$$

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

$$\frac{\left(\frac{2}{9}\right)^{-7} \cdot \left(\frac{2}{9}\right)^{10} \cdot \left(\frac{2}{9}\right)^{-1} \cdot \left(\frac{2}{9}\right)^8}{\left(\frac{2}{9}\right)^{-3} \cdot \left(\frac{2}{9}\right)^{-2}}$$

$$\frac{\left(\frac{3}{5}\right)^6 \cdot \left(\frac{3}{5}\right)^9 \cdot \left(\frac{3}{5}\right)^3}{\left(\frac{3}{5}\right)^{10}}$$



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$$\frac{\left(\frac{4}{9}\right)^9 \cdot \left(\frac{4}{9}\right)^{-7} \cdot \left(\frac{4}{9}\right)^4}{\left(\frac{4}{9}\right)^{11}}$$

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

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

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

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

$$\frac{\left(\frac{2}{5}\right)^{-1} \cdot \left(\frac{2}{5}\right)^{-4} \cdot \left(\frac{2}{5}\right)}{\left(\frac{2}{5}\right)^{-7}}$$

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

$$\frac{\left(\frac{4}{9}\right)^{-10} \cdot \left(\frac{4}{9}\right)^{11} \cdot \left(\frac{4}{9}\right)^2}{\left(\frac{4}{9}\right)^7}$$

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

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

$$\frac{\left(\frac{3}{5}\right)^{-1} \cdot \left(\frac{3}{5}\right)^3 \cdot \left(\frac{3}{5}\right)^{-4} \cdot \left(\frac{3}{5}\right)^{-10}}{\left(\frac{3}{5}\right)^5 \cdot \left(\frac{3}{5}\right)^{-7}}$$

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

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

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

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

$$\left(\frac{1}{3}\right)^{-18}$$

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

$$\frac{\left(\frac{2}{3}\right)^5 \cdot \left(\frac{2}{3}\right)^2 \cdot \left(\frac{2}{3}\right)^4}{\left(\frac{2}{3}\right)^{11}}$$

$$\frac{\left(\frac{1}{7}\right)^{10} \cdot \left(\frac{1}{7}\right)^5 \cdot \left(\frac{1}{7}\right)^{10} \cdot \left(\frac{1}{7}\right)^{-9}}{\left(\frac{1}{7}\right) \cdot \left(\frac{1}{7}\right)^8}$$

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

$$\frac{\left(\frac{3}{7}\right)^{-6} \cdot \left(\frac{3}{7}\right)^{-1} \cdot \left(\frac{3}{7}\right)^{-9}}{\left(\frac{3}{7}\right)^{-16}}$$

$$\frac{\left(\frac{2}{9}\right)^{-7} \cdot \left(\frac{2}{9}\right)^{10} \cdot \left(\frac{2}{9}\right)^{-1} \cdot \left(\frac{2}{9}\right)^8}{\left(\frac{2}{9}\right)^{-3} \cdot \left(\frac{2}{9}\right)^{-2}}$$

$$\left(\frac{2}{9}\right)^{15}$$

$$\frac{\left(\frac{3}{5}\right)^6 \cdot \left(\frac{3}{5}\right)^9 \cdot \left(\frac{3}{5}\right)^3}{\left(\frac{3}{5}\right)^{10}}$$

$$\left(\frac{3}{5}\right)^8$$