



Vereinfachen von Bruchexponenten (Division)

Name: _____

Datum: _____ Ergebnis: _____

$$\frac{\left(\frac{2}{9}\right)^{-5} \cdot \left(\frac{2}{9}\right)^{-5} \cdot \left(\frac{2}{9}\right)^{11}}{\left(\frac{2}{9}\right)^6}$$

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

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

$$\frac{\left(\frac{3}{5}\right)^{-5} \cdot \left(\frac{3}{5}\right)^{-6} \cdot \left(\frac{3}{5}\right)^{-10} \cdot \left(\frac{3}{5}\right)^6}{\left(\frac{3}{5}\right)^{-7} \cdot \left(\frac{3}{5}\right)^6}$$

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

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

$$\frac{\left(\frac{3}{7}\right)^{-8} \cdot \left(\frac{3}{7}\right)^{-8} \cdot \left(\frac{3}{7}\right)^3 \cdot \left(\frac{3}{7}\right)^4}{\left(\frac{3}{7}\right)^{-5} \cdot \left(\frac{3}{7}\right)}$$

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

$$\frac{\left(\frac{1}{2}\right)^{-2} \cdot \left(\frac{1}{2}\right)^5 \cdot \left(\frac{1}{2}\right)^{11}}{\left(\frac{1}{2}\right)^{-7}}$$

$$\frac{\left(\frac{4}{7}\right)^{-9} \cdot \left(\frac{4}{7}\right)^{-5} \cdot \left(\frac{4}{7}\right)^9 \cdot \left(\frac{4}{7}\right)^{-10}}{\left(\frac{4}{7}\right)^{-8} \cdot \left(\frac{4}{7}\right)^8}$$

$$\frac{\left(\frac{3}{5}\right)^9 \cdot \left(\frac{3}{5}\right)^{11} \cdot \left(\frac{3}{5}\right)^5 \cdot \left(\frac{3}{5}\right)^{-10}}{\left(\frac{3}{5}\right)^{-7} \cdot \left(\frac{3}{5}\right)^6}$$

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

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

$$\frac{\left(\frac{1}{3}\right)^{-5} \cdot \left(\frac{1}{3}\right)^8 \cdot \left(\frac{1}{3}\right)^{-7}}{\left(\frac{1}{3}\right)^9}$$

$$\frac{\left(\frac{1}{7}\right)^{11} \cdot \left(\frac{1}{7}\right)^8 \cdot \left(\frac{1}{7}\right)^5}{\left(\frac{1}{7}\right)^{-4}}$$



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$$\frac{\left(\frac{2}{9}\right)^{-5} \cdot \left(\frac{2}{9}\right)^{-5} \cdot \left(\frac{2}{9}\right)^{11}}{\left(\frac{2}{9}\right)^6}$$

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

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

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

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

$$\left(\frac{2}{9}\right)^{26}$$

$$\frac{\left(\frac{3}{5}\right)^{-5} \cdot \left(\frac{3}{5}\right)^{-6} \cdot \left(\frac{3}{5}\right)^{-10} \cdot \left(\frac{3}{5}\right)^6}{\left(\frac{3}{5}\right)^{-7} \cdot \left(\frac{3}{5}\right)^6}$$

$$\left(\frac{3}{5}\right)^{-14}$$

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

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

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

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

$$\frac{\left(\frac{3}{7}\right)^{-8} \cdot \left(\frac{3}{7}\right)^{-8} \cdot \left(\frac{3}{7}\right)^3 \cdot \left(\frac{3}{7}\right)^4}{\left(\frac{3}{7}\right)^{-5} \cdot \left(\frac{3}{7}\right)}$$

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

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

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

$$\frac{\left(\frac{1}{2}\right)^{-2} \cdot \left(\frac{1}{2}\right)^5 \cdot \left(\frac{1}{2}\right)^{11}}{\left(\frac{1}{2}\right)^{-7}}$$

$$\left(\frac{1}{2}\right)^{21}$$

$$\frac{\left(\frac{4}{7}\right)^{-9} \cdot \left(\frac{4}{7}\right)^{-5} \cdot \left(\frac{4}{7}\right)^9 \cdot \left(\frac{4}{7}\right)^{-10}}{\left(\frac{4}{7}\right)^{-8} \cdot \left(\frac{4}{7}\right)^8}$$

$$\left(\frac{4}{7}\right)^{-15}$$

$$\frac{\left(\frac{3}{5}\right)^9 \cdot \left(\frac{3}{5}\right)^{11} \cdot \left(\frac{3}{5}\right)^5 \cdot \left(\frac{3}{5}\right)^{-10}}{\left(\frac{3}{5}\right)^{-7} \cdot \left(\frac{3}{5}\right)^6}$$

$$\left(\frac{3}{5}\right)^{16}$$

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

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

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

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

$$\frac{\left(\frac{1}{3}\right)^{-5} \cdot \left(\frac{1}{3}\right)^8 \cdot \left(\frac{1}{3}\right)^{-7}}{\left(\frac{1}{3}\right)^9}$$

$$\left(\frac{1}{3}\right)^{-13}$$

$$\frac{\left(\frac{1}{7}\right)^{11} \cdot \left(\frac{1}{7}\right)^8 \cdot \left(\frac{1}{7}\right)^5}{\left(\frac{1}{7}\right)^{-4}}$$

$$\left(\frac{1}{7}\right)^{28}$$