



Murtoeksponenttien yksinkertaistaminen
(kertolasku)

Nimi: _____

Päivämäärä: _____ Pisteet: _____

$$\left(\frac{4}{7}\right)^{-6} \cdot \left(\frac{4}{7}\right)^{-10} \cdot \left(\frac{4}{7}\right)^{-9} \cdot \left(\frac{4}{7}\right)$$

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

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

$$\left(\frac{1}{4}\right)^6 \cdot \left(\frac{1}{4}\right)$$

$$\left(\frac{2}{5}\right)^3 \cdot \left(\frac{2}{5}\right)^4 \cdot \left(\frac{2}{5}\right)^7 \cdot \left(\frac{2}{5}\right)^{-5}$$

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

$$\left(\frac{3}{5}\right)^8 \cdot \left(\frac{3}{5}\right)^{-8} \cdot \left(\frac{3}{5}\right)^{-10}$$

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

$$\left(\frac{1}{7}\right)^4 \cdot \left(\frac{1}{7}\right)^{-3} \cdot \left(\frac{1}{7}\right)^9$$

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

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

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

$$\left(\frac{4}{5}\right)^{-1} \cdot \left(\frac{4}{5}\right)^{-6} \cdot \left(\frac{4}{5}\right)^{-4}$$

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

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



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$$\left(\frac{4}{7}\right)^{-6} \cdot \left(\frac{4}{7}\right)^{-10} \cdot \left(\frac{4}{7}\right)^{-9} \cdot \left(\frac{4}{7}\right)$$
$$\left(\frac{4}{7}\right)^{-24}$$

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

$$\left(\frac{2}{3}\right)^3 \cdot \left(\frac{2}{3}\right)^4 \cdot \left(\frac{2}{3}\right)^4 \cdot \left(\frac{2}{3}\right)^7$$
$$\left(\frac{2}{3}\right)^{18}$$

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

$$\left(\frac{2}{5}\right)^3 \cdot \left(\frac{2}{5}\right)^4 \cdot \left(\frac{2}{5}\right)^7 \cdot \left(\frac{2}{5}\right)^{-5}$$
$$\left(\frac{2}{5}\right)^9$$

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

$$\left(\frac{3}{5}\right)^8 \cdot \left(\frac{3}{5}\right)^{-8} \cdot \left(\frac{3}{5}\right)^{-10}$$
$$\left(\frac{3}{5}\right)^{-10}$$

$$\left(\frac{2}{7}\right)^{-9} \cdot \left(\frac{2}{7}\right)^{-9}$$
$$\left(\frac{2}{7}\right)^{-18}$$

$$\left(\frac{1}{7}\right)^4 \cdot \left(\frac{1}{7}\right)^{-3} \cdot \left(\frac{1}{7}\right)^9$$
$$\left(\frac{1}{7}\right)^{10}$$

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

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

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

$$\left(\frac{4}{5}\right)^{-1} \cdot \left(\frac{4}{5}\right)^{-6} \cdot \left(\frac{4}{5}\right)^{-4}$$
$$\left(\frac{4}{5}\right)^{-11}$$

$$\left(\frac{1}{5}\right)^{-3} \cdot \left(\frac{1}{5}\right)^{-2} \cdot \left(\frac{1}{5}\right)^2 \cdot \left(\frac{1}{5}\right)^{-7}$$
$$\left(\frac{1}{5}\right)^{-10}$$

$$\left(\frac{1}{3}\right)^{11} \cdot \left(\frac{1}{3}\right)^{-7} \cdot \left(\frac{1}{3}\right)^4 \cdot \left(\frac{1}{3}\right)^6$$
$$\left(\frac{1}{3}\right)^{14}$$