



Murtoeksponenttien yksinkertaistaminen  
(kertolasku)

Nimi: \_\_\_\_\_

Päivämäärä: \_\_\_\_\_ Pisteet: \_\_\_\_\_

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

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

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

$$\left(\frac{4}{5}\right)^3 \cdot \left(\frac{4}{5}\right)^{-9} \cdot \left(\frac{4}{5}\right)^6 \cdot \left(\frac{4}{5}\right)^{11}$$

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

$$\left(\frac{1}{8}\right)^{-3} \cdot \left(\frac{1}{8}\right)^2 \cdot \left(\frac{1}{8}\right)^5$$

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

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

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

$$\left(\frac{1}{2}\right)^{-7} \cdot \left(\frac{1}{2}\right)^{-10} \cdot \left(\frac{1}{2}\right) \cdot \left(\frac{1}{2}\right)^4$$

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

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

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

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

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



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(kertolasku)

Nimi: \_\_\_\_\_

Päivämäärä: \_\_\_\_\_ Pisteet: \_\_\_\_\_

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

$$\left(\frac{4}{9}\right)^3 \cdot \left(\frac{4}{9}\right)^4 \cdot \left(\frac{4}{9}\right)^9$$
$$\left(\frac{4}{9}\right)^{16}$$

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

$$\left(\frac{4}{5}\right)^3 \cdot \left(\frac{4}{5}\right)^{-9} \cdot \left(\frac{4}{5}\right)^6 \cdot \left(\frac{4}{5}\right)^{11}$$
$$\left(\frac{4}{5}\right)^{11}$$

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

$$\left(\frac{1}{8}\right)^{-3} \cdot \left(\frac{1}{8}\right)^2 \cdot \left(\frac{1}{8}\right)^5$$
$$\left(\frac{1}{8}\right)^4$$

$$\left(\frac{4}{9}\right)^{-9} \cdot \left(\frac{4}{9}\right)^{-10} \cdot \left(\frac{4}{9}\right)^4 \cdot \left(\frac{4}{9}\right)^{-3}$$
$$\left(\frac{4}{9}\right)^{-18}$$

$$\left(\frac{1}{3}\right)^2 \cdot \left(\frac{1}{3}\right)^{-3} \cdot \left(\frac{1}{3}\right)$$
$$\left(\frac{1}{3}\right)^0$$

$$\left(\frac{2}{3}\right)^{-3} \cdot \left(\frac{2}{3}\right)^{-9}$$
$$\left(\frac{2}{3}\right)^{-12}$$

$$\left(\frac{1}{2}\right)^{-7} \cdot \left(\frac{1}{2}\right)^{-10} \cdot \left(\frac{1}{2}\right) \cdot \left(\frac{1}{2}\right)^4$$
$$\left(\frac{1}{2}\right)^{-12}$$

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

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

$$\left(\frac{4}{9}\right)^{-8} \cdot \left(\frac{4}{9}\right)^{10} \cdot \left(\frac{4}{9}\right)^{11}$$
$$\left(\frac{4}{9}\right)^{13}$$

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

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