



Murtoeksponenttien yksinkertaistaminen
(kertolasku)

Nimi: _____

Päivämäärä: _____ Pisteet: _____

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$\left(\frac{1}{9}\right)^{-6} \cdot \left(\frac{1}{9}\right) \cdot \left(\frac{1}{9}\right)^{11}$$



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(kertolasku)

Nimi: _____

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$$\left(\frac{2}{3}\right)^7 \cdot \left(\frac{2}{3}\right)^2 \cdot \left(\frac{2}{3}\right)^6$$
$$\left(\frac{2}{3}\right)^{15}$$

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

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

$$\left(\frac{3}{5}\right)^8 \cdot \left(\frac{3}{5}\right)^7 \cdot \left(\frac{3}{5}\right)^3$$
$$\left(\frac{3}{5}\right)^{18}$$

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

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

$$\left(\frac{3}{8}\right)^3 \cdot \left(\frac{3}{8}\right)^4 \cdot \left(\frac{3}{8}\right)^3$$
$$\left(\frac{3}{8}\right)^{10}$$

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

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

$$\left(\frac{2}{7}\right)^{10} \cdot \left(\frac{2}{7}\right)^6$$
$$\left(\frac{2}{7}\right)^{16}$$

$$\left(\frac{2}{5}\right)^{11} \cdot \left(\frac{2}{5}\right)^5$$
$$\left(\frac{2}{5}\right)^{16}$$

$$\left(\frac{2}{7}\right)^2 \cdot \left(\frac{2}{7}\right)^7 \cdot \left(\frac{2}{7}\right)^{10}$$
$$\left(\frac{2}{7}\right)^{19}$$

$$\left(\frac{1}{7}\right)^8 \cdot \left(\frac{1}{7}\right)^3 \cdot \left(\frac{1}{7}\right)^{-7}$$
$$\left(\frac{1}{7}\right)^4$$

$$\left(\frac{1}{5}\right)^{-7} \cdot \left(\frac{1}{5}\right)^{-8}$$
$$\left(\frac{1}{5}\right)^{-15}$$

$$\left(\frac{1}{9}\right)^{-6} \cdot \left(\frac{1}{9}\right) \cdot \left(\frac{1}{9}\right)^{11}$$
$$\left(\frac{1}{9}\right)^6$$