

Osamäärän korottaminen potenssiin

$$\begin{aligned}\left(\frac{5}{6}\right)^2 &= \frac{5}{6} \cdot \frac{5}{6} = \frac{25}{36} \\ &= \frac{5^2}{6^2} = \frac{25}{36}\end{aligned}$$

$$\left(\frac{a}{b}\right)^n = \frac{a^n}{b^n}$$

Esim.1

$$\text{a) } \left(\frac{a}{3}\right)^3 = \frac{a^3}{3^3} = \frac{a^3}{27}$$

$$\text{b) } -\left(\frac{a}{2}\right)^2 = -\frac{a^2}{2^2} = -\frac{a^2}{4}$$

$$\text{c) } \left(\frac{2a}{3}\right)^2 = \frac{(2a)^2}{3^2} = \frac{2^2 a^2}{9} = \frac{4a^2}{9}$$

Esim.2

$$\frac{36^4}{18^4} = \left(\frac{36}{18}\right)^4 = 2^4 = 16$$