

TIETOSIVU

$$a x^2 + b x + c = 0 \Leftrightarrow x = \frac{-b \pm \sqrt{b^2 - 4 a c}}{2 a}$$

$$(a + b)^2 = a^2 + 2 a b + b^2$$

$$(a + b)(a - b) = a^2 - b^2$$

$$a : b = \frac{a}{b} = a \frac{1}{b}$$

$$(a b)^n = a^n b^n$$

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

$$a^m a^n = a^{m+n}$$

$$\frac{a^m}{a^n} = a^{m-n}$$

$$(a^m)^n = a^{m n}$$

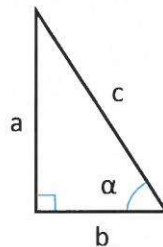
$$a^0 = 1$$

$$a^{\frac{1}{n}} = \sqrt[n]{a}$$

$$\sin \alpha = \frac{a}{c} \quad \cos \alpha = \frac{b}{c}$$

$$\tan \alpha = \frac{a}{b}$$

$$a^2 + b^2 = c^2$$



$$a + a q + a q^2 + \dots = \frac{a}{1-q}$$

$$P = UI \quad U = RI$$

$$\rho_{H_2O} = 1000 \frac{\text{kg}}{\text{m}^3}$$

$$E_{pot} = mgh$$

$$E_{kin} = \frac{1}{2} m v^2$$

$$\log_k(k^a) = a$$

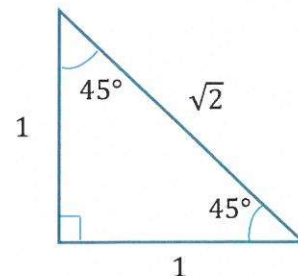
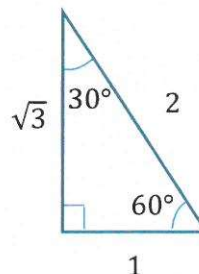
$$pH = -\log_{10}([H_3O^+]) \Leftrightarrow [H_3O^+] = 10^{-pH}$$

$$[H_3O^+][OH^-] = 10^{-14} \left(\frac{\text{mol}}{\text{dm}^3}\right)^2$$

$$V_m = 22.4 \frac{\text{l}}{\text{mol}}$$

Likiarvoja:

a	\sqrt{a}	$\frac{1}{\sqrt{a}}$	$\sqrt[3]{a}$	$\frac{1}{\sqrt[3]{a}}$
2	1,414	0,707	1,260	0,794
3	1,732	0,577	1,442	0,693
4	2,000	0,500	1,587	0,630
5	2,236	0,447	1,710	0,585



Yhdenmuotoisten tasokuvioiden pinta-aloille ja yhdenmuotoisten kappaleiden tilavuuksille on voimassa

$$\frac{A_1}{A_2} = k^2 \text{ sekä } \frac{V_1}{V_2} = k^3, \text{ missä } k \text{ on yhdenmuotoisuuden mittakaava.}$$