kertaus

eksponenttiyhtälö

$2^x = 5$

$x = \log_2 5$

log(5) ÷ log(2)

$x =$ 2,32192809488736234787

Potenssiyhtälö

$x^2 = 4$

$x = \pm\sqrt{4}$

$x = \pm 2$

$x^3 = 8$

$x = \sqrt[3]{8}$

$x = 2$

√(8 ; 3)

2

log ln

$\sqrt[n]{}$ √

$a^x = b \quad (x = 1, 2, 3\ldots)$

- $a = \pm\sqrt[x]{b}$ x parillinen (2, 4, 6 …) $b \geq 0$
- $a = \sqrt[x]{b}$ x pariton (3, 5, 7 …)

esim.

$3x^7 + 10 = 1$

$3x^7 = 1 - 10$

$3x^7 = -9 \quad |:3$

$x^7 = -3$

$x = \sqrt[7]{-3}$

$x =$ √(−3 ; 7)

-1,16993081275868688646

$x \approx -1{,}17$