Merkwaardige producten

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

Machten

$x^0 = 1$ $x^1 = \text{x}$ $x^a \cdot x^b = x^{a+b}$ $\frac{x^a}{x^b} = x^{a-b}$

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

Machten met gebroken en negatieve exponenten

$x^{\frac{1}{2}} = \sqrt{x}$ $x^{\frac{1}{n}} = \sqrt[n]{x}$ $x^{\frac{m}{n}} = \sqrt[n]{x^m}$ $x^{-n} = \frac{1}{x^n}$ $\text{a}x^{-n} = \frac{a}{x^n}$

Wortels

$\sqrt{A \cdot B} = \sqrt{A} \cdot \sqrt{B}$ $\sqrt{\frac{A}{B}} = \frac{\sqrt{A}}{\sqrt{B}}$

Logaritmen

${}^g\log(x) = \text{a} \rightarrow x = g^a$ $g^x = \text{a} \rightarrow x = {}^g\log(a)$

${}^g log(A) + {}^g log(B) = {}^g log(A \cdot B)$ ${}^g log(A) - {}^g log(B) = {}^g \log\left(\frac{A}{B}\right)$

${}^g\log(g^a) = \text{a}$ $\text{a} \cdot {}^g\log(x) = {}^g log(x^a)$

$g^{{}^g\log(x)} = \text{x}$ ${}^g log(1) = 0$

${}^g log(x) = \frac{log(x)}{log(g)}$ ${}^g\log(x) = \frac{{}^b log(x)}{{}^b log(g)}$

Abc-formule

$\text{D} = b^2 - 4\text{ac}$ $\text{x} = \frac{-b \pm \sqrt{D}}{2a}$

Vergelijkingen oplossen

$A^2 = B^2 \rightarrow A = \text{B} \vee \text{A} = -\text{B}$

$\sqrt{A} = \text{B} \rightarrow A = B^2$

$A \cdot B = A \cdot C \rightarrow A = 0 \vee B = C$

$A \cdot B = A \rightarrow A = 0 \vee B = 1$

$\frac{A}{B} = \frac{C}{D} \rightarrow A \cdot D = B \cdot C$

$\frac{A}{B} = C \rightarrow A = \text{B} \cdot C$

$A \cdot B = 0 \rightarrow A = 0 \vee B = 0$

$\frac{A}{B} = C \rightarrow \frac{A}{C} = B$