Arithmetik – Rechnen mit Potenzen und Logarithmen

Arbeitsblatt

Rechnen mit Potenzen:

$3^4 \cdot 3^3 = 3^7 = 2187$ (→ TR: 3 → y^x → 7 = 2187)

$4^5 \cdot 4^2 =$ $4^5 : 4^2 =$ $(4^5)^2 =$	$6^4 : 6^2 =$ $6^4 \cdot 6^2 = 6^6 =$ $(6^4)^2 = 6^8 =$	$2^3 \cdot 2^2 =$ $2^3 : 2^2 =$ $(2^3)^2 =$	$2^2 \cdot 2^{-2} = 2^0 =$ $2^2 : 2^{-2} = 2^4 =$ $7^8 \cdot 7^{-8} =$
$(-16)^2 : (-4)^2 =$	$(-4)^3 =$ $(-4)^4 =$	$5^7 : 5^4 =$ $5^3 \cdot 5^2 =$	$18^2 : 9^2 =$ $(2^2 \cdot 9^2) : 9^2 = 2^2 = 4$
$15^2 : 5^2 =$ $(3^2 \cdot 5^2) :$	$64^2 : 16^2 =$ $(4^2 \cdot 16^2) :$	$81^2 : 27^2 =$	$36^2 : 12^2 =$
$5^{-2} = \frac{1}{5^2} = \frac{1}{25}$ $4^{-3} =$	$3^{-4} =$ $2^{-8} =$	$10^{-2} =$ $10^{-3} =$	$2^{-2} \cdot 2^{-2} =$ $5^{-2} \cdot 5^{-3} =$
$4^3 : (-2)^3 =$	$15^2 : (-5)^2 =$	$(-6)^3 : (-2)^3 =$	$16^3 : (-8)^2 =$
$x^3 \cdot x^2 =$ $(2x^2)^2 =$ $(2x^2)^3 =$	$4a^3 \cdot a^{-2} = \frac{4a^3}{1} \cdot \frac{1}{a^2} = 4a$ $(-r)^2 \cdot (s)^3 =$	$(3b)^3 \cdot (6b)^-$	$15r^3 \cdot (5r)^{-2} =$

Rechnen mit Logarithmen:

*$^2log\ 256 = ($ → TR: log 256 → : → log 2 = **8** >>> weil $2^8 = 256$)*

$^3log\ 729 = 6 \rightarrow 3^6 = 729$ $^5log\ 625 =$ $^7log\ 343 =$	$^8log\ 32768 =$ $^4log\ 65536 =$ $^6log\ 1296 =$	$^{10}log\ 1000 =$ $^9log\ 6561 =$ $^2log\ 1024 =$

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