

## Vereinfache

$$\log_a \frac{1}{7} = \log_a 1 - \log_a 7 = -\log_a 7$$

$$\log_a(1^3) = \log_a(1) = 0$$

$$3^{\log_3 6} = 6$$

$$\log_5(5^{3u}) = 3u$$

$$\log_3 \sqrt[5]{7} = \frac{1}{5} \log_3 7$$

## Berechne

$$\lg(1) = 0$$

$$\lg(10.000) = 4$$

$$\ln\left(\frac{1}{e}\right) = -1$$

$$\log_2(8) = 3$$

$$3^{\log_3 5} = 5$$