

EX 4.2.2

$$f) \log_3(\sqrt{3}) = \frac{1}{2} \Leftrightarrow 3^{\frac{1}{2}} = \sqrt{3} = 3^{1/2}$$

$$x) \log(-1) = \text{impossible} \Leftrightarrow 10^{\text{impossible}} = -1$$

$$m) \log_3(\sqrt[4]{27}) = \frac{3}{4} \Leftrightarrow 3^{3/4} = \sqrt[4]{27} = \sqrt[4]{3^3} = 3^{3/4}$$

$$l) \log_5(0,04) = -2 \Leftrightarrow 5^{-2} = 0,04 = \frac{4}{100} = \frac{1}{25} = \frac{1}{5^2} = 5^{-2}$$

Exercise

$$\log(1000) = 3$$

$$\log_5(25) = 2$$

$$\log_{25}(5) = \frac{1}{2}$$

$$\log_5\left(\frac{1}{5}\right) = -1$$