

2AD801

$$\log_3 \sqrt{3} = x \quad 3^x = 3^{\frac{1}{2}} \rightarrow x = \frac{1}{2}$$

$$\log_{\frac{1}{2}} 2 = x \quad \left(\frac{1}{2}\right)^x = 2 \quad \left(\frac{1}{2}\right)^x = \left(\frac{1}{2}\right)^{-1} \rightarrow x = -1$$

$$\log_{\frac{1}{3}} 9 = x \quad \left(\frac{1}{3}\right)^x = 9 \quad \left(\frac{1}{3}\right)^x = 3^2 \quad \left(\frac{1}{3}\right)^x = \left(\frac{1}{3}\right)^{-2} \rightarrow x = -2$$

$$\log_5 \sqrt[4]{5} = x \quad 5^x = 5^{\frac{1}{4}} \rightarrow x = \frac{1}{4}$$

$$\log_6 \frac{1}{36} = x \quad 6^x = \frac{1}{36} \quad 6^x = 6^{-2} \rightarrow x = -2$$