

ZLOMKY S ODMOCNINAMI A ABSOLUTNÍMI HODNOTAMI

1. Vypočtěte hodnotu logaritmu: $\log_{\frac{1}{3}}\left(\left|1-2\sqrt{3}\right|-\left|\sqrt{3}-1\right|\right)$

$$\log_{\frac{1}{3}}\left(\left|1-2\sqrt{3}\right|-\left|\sqrt{3}-1\right|\right) = \log_{\frac{1}{3}}\left(-1+2\sqrt{3}-\sqrt{3}+1\right) = \log_{\frac{1}{3}}\left(\sqrt{3}\right) = \log_{\frac{1}{7}}3^{\frac{1}{2}} = \log_{\frac{1}{3}}\left(\frac{1}{3}\right)^{\frac{1}{2}} = -\frac{1}{2}$$

2. Vypočtěte hodnotu logaritmu: $\log_{\frac{1}{5}}\left(\left|3-4\sqrt{5}\right|-\left|3\sqrt{5}-3\right|\right)$

$$\log_{\frac{1}{5}}\left(\left|3-4\sqrt{5}\right|-\left|3\sqrt{5}-3\right|\right) = \log_{\frac{1}{5}}\left(-3+4\sqrt{5}-3\sqrt{5}+3\right) = \log_{\frac{1}{5}}\left(\sqrt{5}\right) = \log_{\frac{1}{5}}5^{\frac{1}{2}} = \log_{\frac{1}{5}}\left(\frac{1}{5}\right)^{\frac{1}{2}} = -\frac{1}{2}$$