

# Własności logarytmów

$$\log_a b = c \Leftrightarrow a^c = b$$

$$\log_a a^c = c$$

$$a^{\log_a b} = b$$

$$\log_a 1 = 0$$

$$\log_a a = 1$$

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

$$\log_a \sqrt[n]{b} = \frac{\log_a b}{n}$$

$$\log_a \frac{x}{y} = \log_a x - \log_a y$$

$$\log_a x \cdot y = \log_a x + \log_a y$$

$$\log_a \frac{x}{y} = \log_a x - \log_a y$$

$$\log_a x^n = n \cdot \log_a x, \text{ gdzie } n \in \mathbb{R}$$