

Laws of Logarithms

MATH 1012/QRMS 1010 Quantitative Reasoning and Mathematical Skills

$$\log_b A = x \iff b^x = A$$

$$\log_b 1 = 0 \quad \log_b b = 1 \quad \log_b b^x = x \quad b^{\log_b x} = x$$

$$\log_b xy = \log_b x + \log_b y$$

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

$$\log_b a^x = x \log_b a$$

$$\log_b a = \frac{\log_c a}{\log_c b}$$