

4.3-Logarithmic Functions

Recall:

Definition and Properties of Logarithms

Graphs of Logarithmic Functions:

Change of Base Formula:

Examples:

Calculate $\log_2 \frac{1}{8}$

Solve for a : $\log_8 a = \frac{2}{3}$

Use properties of logarithms to rewrite $\log_b \frac{y^2 \sqrt{z}}{x}$ in terms of $\log_b x$, $\log_b y$, and $\log_b z$

Solve for x : $\ln(3x + 2) - \ln(2x - 3) = 0$

$$\lim_{x \rightarrow \infty} \ln \left(\frac{e^{2x} + 2e^x}{2e^{2x} - e^x} \right)$$

On Your Own: #3, 7, 11, 19, 21, 25, 29, 39, 43, 45, 51, 61, 70, 73, 79, 87