Discrete Mathematics

Logarithms - Change of Base

www.Stats-Lab.com

Logarithms - Change of Base

$$Log_b(x) = \frac{1}{Log_x(b)}$$

$$Log_b(x) = \frac{Log_a(b)}{Log_a(b)}$$

Logarithms - Change of Base

Example 1

$$log_3(x) + 3log_x(3) = 4$$

$$log_3(x) + 3\left(\frac{1}{log_3(x)}\right) = 4$$

Logarithms - Change of Base

Example 1

$$log_3(x) + 3log_x(3) = 4$$

$$(log_3(x))^2 + 3 = 4log_3(x)$$

Logarithms - Change of Base

Example 1

$$log_3(x) + 3log_x(3) = 4$$

$$(log_3(x))^2 - 4log_3(x) + 3 = 0$$