



$$\log_b a = \frac{\log_a(a)}{\log_a(b)} = \log_a(b)$$

↑ 1

$$1 = (\log_a(b))^2$$

$$\log_2(10^3) < 10$$


$$1000 < 1024$$

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$$a^{1/\log_a(b)}$$

$$\log_7 (3^{\log_5 (7)}) = \log_7 (7^{\log_{\square} \square})$$

$$\log_5 (7) \log_7 (3) = \log_{\square} \square$$

$$\log_5 (7^{\log_7 (3)})$$

$$\log_5 (3)$$

$$\log_2(3) = 1$$

$$1 = \frac{1}{\log_2(3)}$$
$$\log_2(x) = \frac{\log_2(x)}{\log_2(3)}$$

ASSUM

$$\log_2(x) = \log_3(x), \quad x > 1$$

$$x = 2^{\log_3(x)}$$



$$9 = 3^2$$

$$\log_3(9) - \log_3\left(\frac{27}{3^3}\right)$$

$$\log_3(9) - 3$$

$$\log_3(9) + \frac{1}{2} \log_3(0.2)$$

$$\log_3(9) + \log_3(\sqrt{0.2})$$

$$\log_3(9 \sqrt{0.2})$$

$$\log_{n+2}(n+1) = x$$

$$(n+1) = (n+2)^x$$