

Name: _____

Date: _____

Learning Goal 8.1	Solving exponential and logarithmic equations with same base and with different bases, including base e .
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Power Law	Product Law	Quotient Law	Change of Base

Example Estimate the value of $\log_3 50$, then evaluate it (round to the nearest hundredth).

Example Solve for x . State any restrictions on the variable and verify your answers.

a. $\log_2 x = \log_2 18 - \log_2 6$

b. $\log_5(x - 3) + \log_5 x = \log_5 10$

c. $2 \log(3 - x) = \log 4 + \log(6 - x)$

d. $\log_2(9x + 5) - \log_2(x^2 - 1) = 2$