

Exponential and Logarithmic Functions Part 1

4 CHANGE OF BASE LAW

Simplify the following questions:

a. $\log_2 x + \log_4 x + \log_{16} x = \frac{21}{4}$

b. $\log_2(x^2 - 1)$ using change to base law given that $x = 1$.

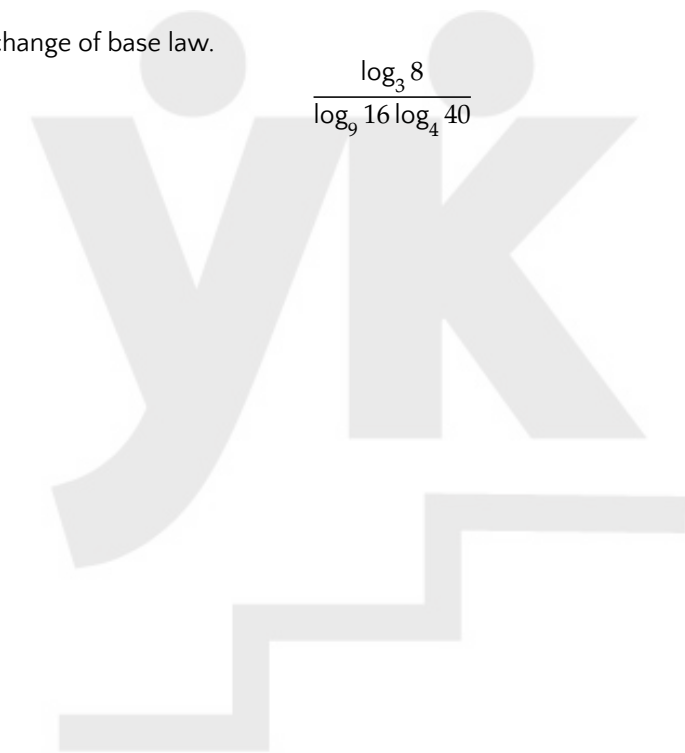
c. If $\log_2 x + \log_4 x = 6$; then find the value of x .

d. Evaluate

$$\frac{1}{\log_{ab} abc} + \frac{1}{\log_{bc} abc} + \frac{1}{\log_{ca} abc}$$

e. Simplify using change of base law.

$$\frac{\log_3 8}{\log_9 16 \log_4 40}$$



Make sure that you ask for help if you don't understand completely! :)