

Logs – Group Problems

**1) Find the numerical value of N if $N = (\log_6 24 - \log_6 12) * \log_8 36$

answer: _____

*2) Solve: $\log_6(x + 2) + \log_6(x - 3) = 1$

answer: _____

**3) Find $\log_b \sqrt[3]{\frac{7}{8}}$, if $\log_b 7 = .6263$ and $\log_b 4 = .4462$. Round your answer to 4 decimal places.

answer: _____

*4) Find the exact value of x , if $\log x$ is the average of $\log 3$ and $\log 16$.

answer: _____

**5) Solve for x : $\log_3(x + 3) - \log_3(x - 5) = 2$

answer: _____

*6) Find x if $27^{\log_2 7^9} = 8x + 5$

answer: _____

**7) Solve for x : $\log_{10}(x^2 + 3x) + \log_{10} 5x = 1 + \log_{10} 2x$

answer: _____

***8) For what value(s) of x , where x is a real number, is $\log_9 16 * \log_8 3 + \log_8 x = \log_8 3$

answer: _____

*9) Express $\log_3 8 + \log_3 6 - \log_3 4 + \log_3 10$ as the log of a single number in simplest form.

answer: _____

*10) Evaluate the expression $\frac{\log_{64} 8 - \log_7 49}{\log_3 \frac{1}{3} + \log_2 (2^{-4})}$

answer: _____

***11) If $\log_2 x + \log_4 x - \log_8 x = 7$, solve for x .

answer: _____