

## Algebra II Worksheet #2 Unit 11 selected solutions

Given:  $\log_N 2 = a$  ;  $\log_N 3 = b$  ;  $\log_N 5 = c$

Express each of the following using an algebraic expression in terms of a, b, and/or c.

8.  $\log_N 8 = \mathbf{3a}$

10.  $\log_N 0.25 = \mathbf{-2}$

12.  $\log_N \sqrt{5} = \frac{\mathbf{c}}{2}$

14.  $\log_N (15N^2) = \mathbf{b + c + 2}$

Evaluate each of the following.

16.  $\log_5 0.2 = \mathbf{-1}$

18.  $\log_{10} 0.0001 = \mathbf{-4}$

20.  $\log_3 \sqrt{3} = \mathbf{1/2}$