

Algebra 2-H**Extra Problems Sections 8.4 and 8.5**

Do these problems on your own paper with the textbook assignment.

Evaluate: 1. $\log_8 4$ 2. $\log_7 \sqrt[3]{49}$

Solve for x : 3. $\log_4 x = \frac{-3}{2}$ 4. $\log_x 27 = \frac{3}{4}$
5. $\log_5 (\log_3 x) = 1$ 6. $\log_{16} x = \frac{-3}{4}$

Expand and simplify. Express the answer in terms of $\log_2 M$ and $\log_2 N$.

7. $\log_2 \sqrt[3]{M^2 N}$ 8. $\log_2 \frac{4}{MN}$

Condense to a single logarithm: 9. $\log_5 x - \log_5 y + 2$

Evaluate: 10. $\log_7 7\sqrt{7}$ 11. $\log_2 \sqrt[3]{\frac{1}{4}}$
12. $2\log 5 + \log 4$ 13. $\log_4 40 - \log_4 5$

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