

Algebra II Class Worksheet #1 Unit 11

Write the exponential equation that corresponds to each logarithmic equation.

1. $\text{Log}_3 9 = 2$

2. $\text{Log}_5 125 = 3$

3. $\text{Log}_9 3 = 0.5$

4. $\text{Log}_2 0.25 = -2$

Write the logarithmic equation that corresponds to each exponential equation.

5. $3^4 = 81$

6. $2^5 = 32$

7. $16^{1.5} = 64$

8. $9^{-\frac{1}{2}} = \frac{1}{3}$

Evaluate each of the following logarithms.

9. $\text{Log}_5 25 =$ _____

10. $\text{Log}_{10} 1000 =$ _____

11. $\text{Log}_2 0.125 =$ _____

12. $\text{Log}_{10} 0.01 =$ _____

13. $\text{Log}_2 \frac{1}{32} =$ _____

14. $\text{Log}_9 3 =$ _____

15. $\text{Log}_{25} 125 =$ _____

16. $\text{Log}_3 243 =$ _____