

General Algebra 2 Worksheet #7 Unit 12 page 1 _____

Solve each of the following equations without using a calculator. Show your process neatly organized.

1. $2^{(x-3)} = 32$

2. $25^{(3x+1)} = 125$

3. $3^{(2x+3)} = 81$

4. $8^{(2x-5)} = 16$

5. $\text{Log}_3 x = 2$

6. $\text{Log}_5 x = -2$

7. $\text{Log}_4 x = 0.5$

8. $\text{Log } x = 3$

9. $\text{Log}_9 x = 1.5$

10. $\text{Log } x = -2$

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Solve each of the following equations. Show your process neatly organized. Express your solutions rounded to the nearest hundredth. (You will need a calculator for these.)

11. $2^{(x+2)} = 100$

12. $3^{(2x-1)} = 75$

13. $e^{(x-2)} = 20$

14. $e^{(3x+5)} = 80$

15. $\text{Log}_2 x = 2.1$

16. $\text{Log}_3 x = -1.5$

17. $\ln x = 3.1$

18. $\text{Log } x = 1.4$

19. $\ln x = -2$

20. $\text{Log } x = -1.8$