

Unit 2 (1.4)

Practice with Log Properties

1. $\log_7(4x + 35) = 3$

2. $\log_2x + \log_2(x - 12) = 6$

3. $\log_{19}(x - 4) - \log_{19}5 = \log_{19}3$

4. $3\log_65 = \log_65x$

5. $\log_{17}2 + \log_{17}4x = 4\log_{17}4$

6. $\log_852x - \log_813 = 2$

$$7. \log_9(2x - 2) - \log_9(x - 5) = \log_9 6$$

$$8. \log_2(x + 2) + \log_2 6 = 4$$

$$9. 6\log_5 2 - 3\log_5 2 = \log_5 32x$$

$$10. 3\log_7 x = 2\log_7 8$$

$$11. \log_5 4 + \log_5 2x = \log_5 24$$

$$12. \frac{1}{2}\log_6 25 + \log_6 x = \log_6 20$$

$$13. \log_2 4 - \log_2(x + 3) = \log_2 8$$

$$14. \log_7(5x - 1) = 2$$

$$15. 8\log_7 4 = 2\log_7 x$$

$$16. \log_6 2x + \log_6 8 = \log_6 80$$

$$17. \log_2 x - \log_2 3 = \log_2 7$$

$$18. 3\log_8 2 - \log_8 4 = \log_8 x$$

$$19. \log_{14}(3x + 4) = 0$$

$$20. \log_3 x + \log_3 3 = 3$$

$$21. \log_2(x + 4) - \log_2(x - 3) = 3$$

$$22. \log_4(x + 1) - \log_4(x - 2) = 1$$

$$23. 2\log_3 x = 4$$

$$24. \log_8 48 - \log_8 x = \log_8 4$$

$$25. \log_9(3x + 14) - \log_9 5 = \log_9 2x$$

$$26. \log_{15}(x + 3) + \log_{15} x = \log_{15} 4$$

$$27. \log_{22}(x + 4) - \log_{22} x = \log_{22}(x + 1)$$

$$28. \log_{41}(x^2 + 4) - \log_{41}(x + 6) = \log_{41} 1$$

$$29. \log 4 + \log x = 2$$

$$30. \log_8(x - 3) + \log_8(x + 4) = 1$$