NAME _____ DATE _____

Practice C

For use with pages 501–508

Solve the exponential equation. Round the result to three decimal places if necessary.

1. $e^x = 9$

2. $2^{3x+1} = 4$

3. $3^{2x-5} = 7$

4. $e^{4x+1} - 3 = 8$

5. $e^{5-3x} + 4 = 6$

6. $3^{0.4x} - 7 = 10$

7. $\frac{2}{3}e^{4x} + 5 = 8$

8. $\frac{1}{4}(2^{3x+1}) - 2 = 5$

9. $\frac{5}{3}e^{1-x} + 1 = \frac{9}{2}$

10. $e^{x^2} + 3 = 4$

11. $e^{x^2+1} = e^{x+3}$

12. $2^{3x+1} = 2^{2/x}$

Solve the logarithmic equation. Round the result to three decimal places if necessary.

13. $\log(2x + 1) = 1$

14. $\ln(x + 3) - 2 = 8$

15. $\log_3(x - 2) + 5 = 7$

16. $\ln(6x + 5) = 7$

17. $\ln(x - 2) + \ln x = 0$

18. $\log_2 x + \log_2(x + 1) = 1$

19. $\log_3 x + \log_3(x - 2) = 1$

20. $\log_2(x + 1) - \log_2 x = 3$

21. $\log_4(x + 2) - \log_4(x - 3) = 2$

22. $\log(3x + 2) = \log(2x - 1)$

23. $\log(x^2 - 1) = \log(x + 5)$

24. $\log(x + 2) + \log(x - 3) = \log(x + 29)$

25. $\log_2 x + \log_2(x - 2) - \log_2(x - 3) = 3$

26. $\log_2(-x - 3) - \log_2(x - 1) - \log_2(x + 3) = 1$