AFM

Act. #39
"Solving Logarithms"

* Solve the following. Round to the tenths place if NEEDED.

1. $\log_5(x+3) = 2$

2. $\log(5x+8) = \log(3x-5)$

3. $\ln(2x) = 4$

4. $e^{x-4} = 8$

5. $6^{2x} = 4$

6. $3e^{4x} = 12$

7. $5\ln(x+4) = 10$

8. $\log_3 5 + \log_3 x = 2$

9. $\log_2(x-3) - \log_3(x+5) = 1$

10. $-2e^{3x-5} = -10$

11. $\log_2(4x+3) - \log_2(x-1) = \log_2\left(\frac{x+1}{2}\right)$

12. $\ln 4 + \ln 3 - \ln x = \ln 5$

13. $13 + 5e^{x-2} = 15$

14. $(3)5^x = 9$

15. $\log(x^2 - 2x) = \log(3x+50)$

16. $\log(x) + \log(x) = \log(2x+63)$

17. $\frac{1}{2}\ln 9 - 2\ln x = \ln 5 - \ln 15$

18. $2\log_a x = \log_a(3x+18)$

19. $2\log_4 x - \log_4(x-1) = 1$

20. $\frac{1}{3}\log_2 x + 5 = 7$