Act. #44 "Solving Natural Logarithms"

Solve each equation. Round your answers to nearest tenths.

1. $\ln(3n+7) = \ln(-3n-5)$
2. $\ln(4b-9) = \ln b$
3. $\ln(x^2+2x) = \ln(36-3x)$
4. $\ln(35+v) = \ln(v^2-v)$
5. $-7\ln(n+1) = -14$
6. $\ln(a+5)+4 = 5$
7. $2-10\ln(5p-4) = 12$
8. $2-5\ln(10k+4) = 12$
9. $\ln(x-2) - \ln x = 1$
10. $\ln(x-4) - \ln x = \ln 51$
11. $\ln(x-4) - \ln x = 2$
12. $\ln x - \ln(x+3) = 4$
13. $\ln(2x^2-2) - \ln 9 = \ln 80$
14. $\ln(-3+3n) = \ln(n^2-n)$

Solve each equation. Round your answers to the nearest tenths.

15. $-8e^{p} = -49$
16. $2e^{8x} = 45$
17. $e^{-4x}+8 = 35$
18. $e^{3r}+4 = 59$
19. $3e^{-b} = 56$
20. $-9.3e^{10b} = -67$
21. $4e^{r+5} = 29$
22. $6e^{-10r} = 63$

Solve for x. [tenths place]

23. $e^{x} = 4$
24. $\ln x = 6$
25. $\ln(2x-1) = 1$
26. $e^{3x+5} = 10$
27. $\ln(e^{3-x}) = 8$
28. $\ln x = \ln 4 + \ln 7$
29. $\ln(\ln x) = 2$
30. $e^{e^{x}} = 5$
31. $\ln x = \frac{1}{2}$
32. $e^{x} = 7$
33. $e^{5-2x} = 2$
34. $\ln(4x+7) = 4$