

Name: _____

Aim: More Practice with Exponential and Logarithmic Equations**I. Do Now:** Solve for x .

1. $\frac{1}{3}10^{2x} = 12$

2. $x^3e^x - 4xe^x = 0$

3. $e^{2x+1} = 5^{x+2}$

II. Solve for x :

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

5. $\log_2(x+5) - \log_2(x-2) = 3$

6. $e^{6x} - e^{3x} = 6$

7. $\ln\sqrt[3]{2x-5} = 4$

8. $\frac{400}{1+e^{-x}} = 200$

9. $29+10^{x+12} = 74$

10. $7e^x - e^{2x} = 12$

11. $\ln x + \ln(x+3) = 1$

12. $2\ln\sqrt{x} - \ln(1-x) = 2$

13. $2e^{5x} + 5e^{3x} = 3e^x$

14. $\sqrt{\ln x} + \ln x = 2$

15. $e^{e^x} = 17$

16. $e^{x+1} \cdot e^{2x-1} - \frac{3}{e^{2x}} = 0$

17. $\sqrt{3+26e^{2x}} = 3e^{2x}$

18. $\ln\sqrt{x} + \sqrt{\ln x} = 2$