1060 Final Exam Review – Part 2

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

2. Solve $\log_2(x^2) - \log_2(3x - 8) = 2$.

3. Solve $16^x = 45$.

4. Solve $10^{\sin x} = 1$.

5. Solve $2\ln(x + 1) - 1 = 0$.

6. Solve $2\ln x = 4$.

7. Solve $e^{(x^2 + 2x - 3)} = 1$

8. Solve $\log_2(3 - x) = 3$.

9. Solve $3^{(1-2x)} = 27$.

10. Solve $\log_4(3x) = \frac{1}{2}$.

11. Solve $4 \cdot 16^{-3x} = 16^{3x-2}$.

12. Solve $e^{x-1} - 5 = 5$.

13. Solve $e^{x+1} = 5^{x+1}$.

14. Solve $e^{x+1} = 2 \cdot 3^{x-2}$.

15. Solve $2\ln x = \ln(4x + 6) - \ln 2$

16. Solve $\ln(2x - 1) + \ln(3x - 2) = \ln 7$

17. Solve $e^{2x} + (e^x - 1)^2 = 1.$

18. Solve $4\log_{10}(x + 3) \cdot \log_{10}(x^2) + 1 = 0$

19. Graph $\ln x$ and $\log_2 x$.

20. What's the relationship between the graphs of $f(x) = \log_3 x$ and $g(x) = 3^x$?

21. Graph $g(x) = 4\ln(x - 2)$. Label 4 points on this graph.

22. Graph $f(x) = \log_3(x) + 5$. Label 4 points on this graph. Does it have any asymptotes?