

Kerry Ojakian's MTH 30 Class
Class Assignment #17

1. Solve.

(a) $10^y = 1000000$

(b) $555^x = 1$

2. Solve.

(a) $5^u = -5$

(b) $x^{1000} = 1$

3. Solve. $x^{1000} = -1$

4. Solve.

(a) $4^{x+5} = 16$

(b) $\left(\frac{1}{3}\right)^{2x-1} = 9$

5. Solve.

(a) $\log_3(x) = -2$

(b) $\log_4(x^2) = 2$

6. Solve each equation:

(a) $7^{-x^2-3x} = 49$

(b) $\log_{10}(1000) = 5x + 1$

7. Solve. $4^x = 32$

8. Solve. $27^x = 81$

9. Solve. $5^{2-x} = \frac{1}{125}$

10. Solve (expressing your answer using logarithms). $5e^x = 7$

11. Solve (expressing your answer using logarithms). $3^{\frac{x}{7}} = 0.2$

12. Solve. $\log_5 x = 3$

13. Solve. $\log_4(x - 7) = 3$

14. Solve. $5 \ln 2x = 20$

15. Solve each.

(a) $\log_5(x - 2) = \log_5 3$

(b) $(\log_5 x) - 2 = \log_5 3$

16. Solve. $2\log_5 x = 4$

17. Solve. $3\log x = \log 125$

18. Solve. $\log_2 \sqrt{x+4} = 1$

19. Solve. $\log(x + 7) - \log 3 = \log(7x - 1)$

20. Solve. $\log(x + 3) + \log(x - 2) = \log 14$
