

GO COUGARS!



Homework Questions

Chapter 3 Review

1. Graph: $y = \log_5 x$

2. Evaluate: $\log_7 49$

*denotes
calc prob

3. Rewrite in exponential form: $\log_2 8 = 3$

4. Rewrite in log form: $3^x = 18$

5. Graph: $y = 6^x$

6. Graph: $y = e^x$

7. Graph: $y = \ln x$

8. Expand: $\ln 2x$

9. Condense: $\log_2 x - \log_2 y$

10. Evaluate: $\ln e$

*11. How much will you have if you invest \$2000 at 4.3% for 5 years compounded monthly.

*12. How much will you have in you invest \$1500 at 2% for 6 years compounded continuously.

*13. Find the rate of decay if the half-life of a banana is 15 days.

*14. Evaluate:

$\log_8 2.4$

*15. Evaluate

$\log_3 x = 7$

*16. How many cells were originally on a petri dish if the model for the uninhibited growth is $A = 42e^{.0421t}$

17. Graph: $y = -\log_4 x$

18. Evaluate: $\log_3 100^3$

19. Graph: $y = 6^{-x} + 4$

20. Graph: $4^{x-2} + 1$

21. Graph: $y = -\ln(x + 5)$

22. Expand: $\log_3 5xy^2$

23. Condense: $2\ln x + \frac{1}{2}\ln(x + 1) - \ln(x - 3)$

24. Evaluate: $3\ln e^4$

25. Evaluate: $8^{x+2} = \left(\frac{1}{2}\right)^3$

*26. How long will it take for your money to triple compounded continuously at a rate of 2.7%.

27. Solve: $\log_3 x - \log_3(x + 1) = 2$

*28. Solve: $4\ln(x + 1) = 8$

*29. Solve $4(e^{2x}) = 6$

*30. How long will it take a population of 10 groupies to grow to 100 if it doubles every 5 years.

*31. Find the interest rate used if you invest \$2200 compounded quarterly and you have \$2500 after 3 years.

32. Graph: $y = -\log_2(x + 5)$

33. Evaluate: $\log_2\left(\frac{1}{4}\right)^3$

34. Graph: $y = -3^{x-1} - 4$

35. Graph: $y = -e^{-x} - 2$

36. Graph: $y = -\ln(-x) - 3$

37. Expand: $\ln\left[\frac{(x^2 - 1)}{x^2 y}\right]$

38. Condense: $3\log x - \frac{1}{2}\log(x - 1) - 4\log y + \log(x + 1)$

39. Evaluate: $2\ln e^3 - \log_4 16$

*40. What is the interest rate for your investment if the amount doubles in 4 years when compounded monthly? When will your money triple?

*41. How much remains of a 2g piece of pencil will you have left after 27 days if the half-life of the pencil is 107 days?

42. Solve: $-8\log_2(2x) + 4 = -4$

43. Solve: $\log_2 x + \log_2(x + 2) = 3$

*44. Solve: $-5(3^{2x-1}) = -25$

*45. Find the exponential equation of the curve through (0, 2) and (4, 27).

*46. Find the intensity of an earthquake measuring 7.5 on the Richter Scale. Find the Richter Scale measurement for an earthquake whose intensity is 258,000.

HOMework



Review Assignment

p 247 5, 9-12, 15, 17, 19, 20 (by hand), 31, 33
37, 39, 43-46, 47, 49, 65, 67, 81-91 odd,
95-125 odd, 128, 131, 133, 141-149 odd
146, 150

Workbook p ~~45~~ top half of page
43

