Precalc Review Ch. 11

Quiz 11.3-11.4 is today

Ch. MCT 11.1-11.4 is tomorrow

whiteboards

REVIEW EXERCISES

Evaluate each expression.

11. $\left(\frac{1}{4}\right)^{-2}$

12. $64^{\frac{1}{2}}$

13. $27^{\frac{4}{3}}$

14. $\left(\sqrt[4]{256}\right)^3$

$\left(27^{\frac{1}{3}}\right)^4 \rightarrow 3^4 = 81$

Simplify each expression.

15. $3x^2(3x)^{-2}$

16. $\left(6a^{\frac{1}{3}}\right)^3$

17. $\left(\frac{1}{2}x^4\right)^3$

18. $(w^3)^4 \cdot (4w^2)^2$

19. $\left((2a)^{\frac{1}{3}}(a^2b)^{\frac{1}{3}}\right)^3$

20. $\left(3x^{\frac{1}{2}}y^{\frac{1}{4}}\right)(4x^2y^2)$

$12x^{2\frac{1}{2}}y^{2\frac{1}{4}}$

$12x^{\frac{5}{2}}y^{\frac{9}{4}}$

$\left(2^{\frac{1}{3}}a^{\frac{1}{3}}a^{\frac{2}{3}}b^{\frac{1}{3}}\right)^3$

$\left(2^{\frac{1}{3}}a^{1}b^{\frac{1}{3}}\right)^3 = 2^{1}a^{3}b^{1}$

$= 2a^3b$

Graph each exponential function or inequality.

21. $y = 3^{-x}$

22. $y = \left(\frac{1}{2}\right)^x$

23. $y = 2^{x-1}$

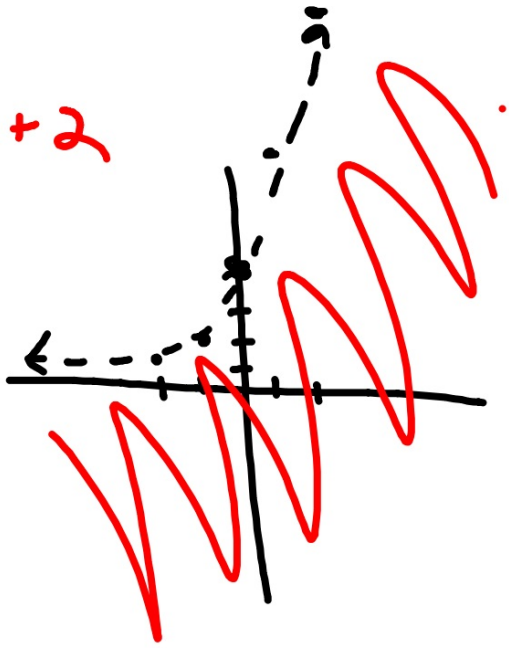
24. $y = 2^x + 2$

25. $y \geq -2^x + 1$

26. $y < 2^{x+2}$

$y = 2^x + 2$

0	4
1	8
2	16
-1	2
-2	1



Find the balance for each account after 10 years if the interest is compounded continuously.

27. $2500 invested at 6.5%

28. $6000 invested at 7.25%

29. $12,000 invested at 5.9%

REVIEW EXERCISES

Write each equation in exponential form.

30. $\log_8 4 = \frac{2}{3}$

31. $\log_3 \frac{1}{81} = -4$

Write each equation in logarithmic form.

32. $2^4 = 16$

33. $5^{-2} = \frac{1}{25}$

Evaluate each expression.

34. $\log_2 32$

35. $\log_{10} 0.001$

36. $\log_4 \frac{1}{16}$

37. $\log_2 0.5$

38. $\log_6 216$

39. $\log_9 \frac{1}{9}$

40. $\log_4 1024$

41. $\log_8 512$

Solve each equation.

42. $\log_x 81 = 4$

43. $\log_{\frac{1}{2}} x = -4$

44. $\log_3 3 + \log_3 x = \log_3 45$

45. $2 \log_6 4 - \frac{1}{3} \log_6 8 = \log_6 x$

46. $\log_2 x = \frac{1}{3} \log_2 27$

47. Graph $y = \log_{10} x$