5.4 HW

- **5-97.** Copy these equations and solve for x. You should be able to do all these problems without a calculator. Homework Help ✎

  a. $\log_x(25) = 1$

  b. $x = \log_3(9)$

  c. $3 = \log_7(x)$

  d. $\log_3(x) = ½$

  e. $3 = \log_x(27)$

  f. $\log_{10}(10000) = x$

- **5-98.** Is log(0.3) greater than or less than one? Justify your anwer. Homework Help ✎

- **5-99.** Solve $1.04^x = 2$. Your answer should be accurate to three decimal places. Homework Help ✎

- **5-100.** This problem is a checkpoint for factoring quadratics. It will be referred to as Checkpoint 5B. Homework Help ✎

- Factor each expression below.

  a. $4x^2 - 1$

  b. $4x^2 + 4x + 1$

  c. $2y^2 + 5y + 2$

  d. $3m^2 - 5m - 2$

- Check your answers by referring to the Checkpoint 5B materials.

- Ideally, at this point you are comfortable working with these types of problems and can solve them correctly. If you feel that you need more confidence when solving these types of problems, then review the Checkpoint 5B materials and try the practice problems provided. From this point on, you will be expected to do problems like these correctly and with confidence.

- **5-102.** Is it true that $\log_3(2) = \log_2(3)$? Justify your answer. Homework Help ✎

- **5-103.** Consider the general form of an exponential function: $y = ab^x$. Homework Help ✎

  a. Solve for a.

  b. Solve for b.