**Pre-Calculus Quiz 3.1 to 3.3 Review KEY**

**Evaluate the function at the given value. Round to three decimal places.**

 when when

**Graph each exponential function. Label two points and the asymptote.**



 asymptote asymptote

**Use the one-to-one property to solve each equation for *x*.**

**Write each equation in logarithmic form.**

**Write each equation in exponential form.**

**Simplify each expression:**

**Graph each logarithmic function. Label two points and the asymptote.**



(1, 0) (-2, 0)

(2, 1) (-1, 1)

Asymptote @ x = 0 Asymptote @ x = -2

**Use your calculator to evaluate each of the following. Round to four decimal places.**

**Evaluate the expression using the change-of-base formula. Round answers to three decimal places.**

***Expand* each logarithmic expression.**

***Condense* each logarithmic expression to the logarithm of a single quantity.**