Logarithmic Functions

1. Assume you have \$50,500 and a savings account offer with and effective annual interest rate of 2%. How much money would you have in the bank if the money is compounded:

   (a) annually?

   (b) daily?

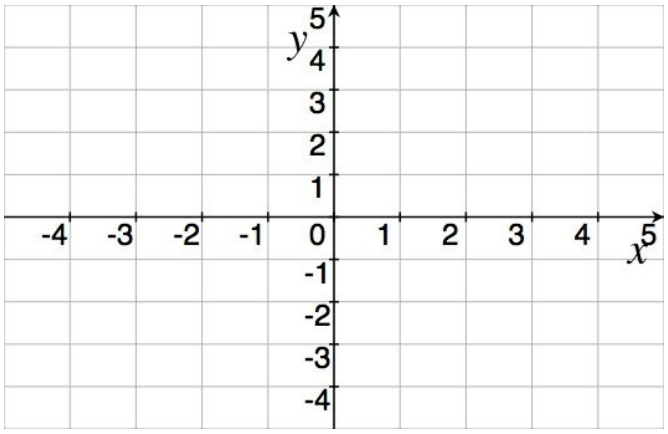
   (c) continuoulsly?

2. Graph:

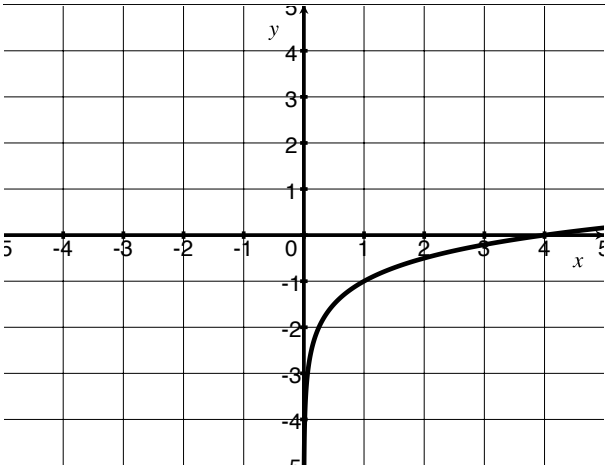
   (a) $f(x) = 3^x$.

   (b) $g(x) = \log_3(x)$

   (c) $h(x) = 2\log_3(x) - 1$



3. Given that $g(x)$ is an logarithmic function of the form $y = \log_b(x)$ that has been vertically shifted and is graphed below.
   Find the equation.



4. Find the value t in the following by writing logarithmic equations as exponential equations:

   (a) $\log(t) = 5.5$

   (b) $\log_7(\sqrt[3]{7}) = t$

   (c) $\log_t(4) = 2$

   (d) $2 = e^{-02t}$