Math 111 Worksheet #8

October 26, 2007

1. Solve the following equations.

   (a) $2e^{-.1t} = 6$

   (b) $49(2.75)^{x-1} = 11(3.5)^x$

2. What is the doubling time for a savings account that gives 5% interest per year? (How long does it take a certain amount in the account to double?)

3. In order to double your money in 5 years, what yearly interest rate would an account need to have? (Note: You won't need logarithms to solve this equation.)

4. Find the domain of the following functions.

   (a) $\ln(2 - x)$

   (b) $\ln(e^x)$