Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Exponential and Logarithmic Functions

Notes:

1. Suppose that you are observing the behavior of cell duplication in a lab. In one experiment, you started with one cell and the cells doubled every minute. Write an equation with base 2 to determine the number (population) of cells after one hour.

2. Determine how long it would take a cell population of 2 cells to grow to a population of 100,000 cells.

3. Write an equation with base 5 that is equivalent to the equation