Algebra 2B 8.1-8.2 Review **Name**_____ **HR**__

Graph the exponential function.

1. $y = 4^x$

2. $y = 4^{x-1} + 3$

3. An initial population of 895 quail increases at an annual rate of 7%. Write an exponential function to model the quail population.

4. For an annual rate of change of -31%, find the corresponding growth of decay factor.

5. Without graphing, determine whether the function $y = (5.2)^x$ represents exponential growth of exponential decay.

6. Without graphing determine whether the function $y = 7\left(\frac{2}{3}\right)^x$ represents exponential growth or decay.

7. In a particular region of a national park, there are currently 330 deer, and the population is increasing at an annual rate of 11%.

   a. Write an exponential function to model the deer population.

   b. Predict the number pf deer that will be in the region after 10 years. Show your work.