1. Suppose that census counts of Midwest wolves began in 1990 and produced these estimates for several different years:

Time since 1990 in years	0	2	5	7	10	13
Estimated Wolf populaion	200	86	24	10	3	.8

a. Use your calculator to find both **linear** and **exponential** regression models for the given data pattern. Determine which function is the better fit.

b. What do the numbers in the linear and exponential function rules from Part a suggest about the pattern of change in the wolf population?

c. Use the model for wolf population growth that you believe to best calculate population estimates for the year 1994.

d. Use the model for wolf population growth that you believe to be best to calculate when the population will reach 100.

4. Suppose that census counts of Midwest wolves began in 1990 and produced these estimates for several different years:

Time since 1990 in years	0	2	5	7	10	13
Estimated Wolf populaion	400	294	185	136	85	54

a. Use your calculator to find both **linear** and **exponential** regression models for the given data pattern. Determine which function is the better fit.

b. What do the numbers in the linear and exponential function rules from Part a suggest about the pattern of change in the wolf population?

c. Use the model for wolf population growth that you believe to best calculate population estimates for the year 2011.

d. Use the model for wolf population growth that you believe to be best to calculate when the population will reach 0.