Looking at Data–Relationships

Project 4   POPULATION GROWTH

Choose a location that you would like to know the population. This may be a state, a county, a region of the country, or a city. Use the Internet to search the U.S. census reports.

1.   List your choice in the space provided.

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2.   You are to research the population given by the U.S. census reports to find the population for each of the previous census reports from 1790-2000. List the populations in the table below:

Year	Population
1790	
1800	
1810	
1820	
1830	
1840	
1850	
1860	
1870	
1880	
1890	
1900	
1910	
1920	
1930	
1940	
1950	
1960	
1970	
1980	
1990	
2000	

3. Use your TI-83 to explore models for the growth of the population over time. Make a plot of the data by choosing STAT PLOT. Use Year as the X List and Population as the Y List for the data set. In the table below give the equation of four possible models of the data set and the value of R^2 for each model. Provide a sketch of the data and graph of the model by using the Graph Link or hand sketch for each of the four models. Attach the graphs to your report for this project.

Model	Equation	R^2

4. Now use the graphs with the supporting information to make a decision on which model best fits the data.

5. Give supporting reasons to your conclusion.

6. Using your model, predict the population in the next census.