Name _____ Date_____

Lesson 12: Nonlinear Models in a Data Context

Exit Ticket

The table shows the population of New York City from 1850–2000 for every 50 years.

Year	Population	Population growth (change over 50-year time period)
1850	515,547	------
1900	3,437,202	
1950	7,891,957	
2000	8,008,278	

4. Find the growth of the population from 1850–1900. Write your answer in the table in the row for the year 1900.

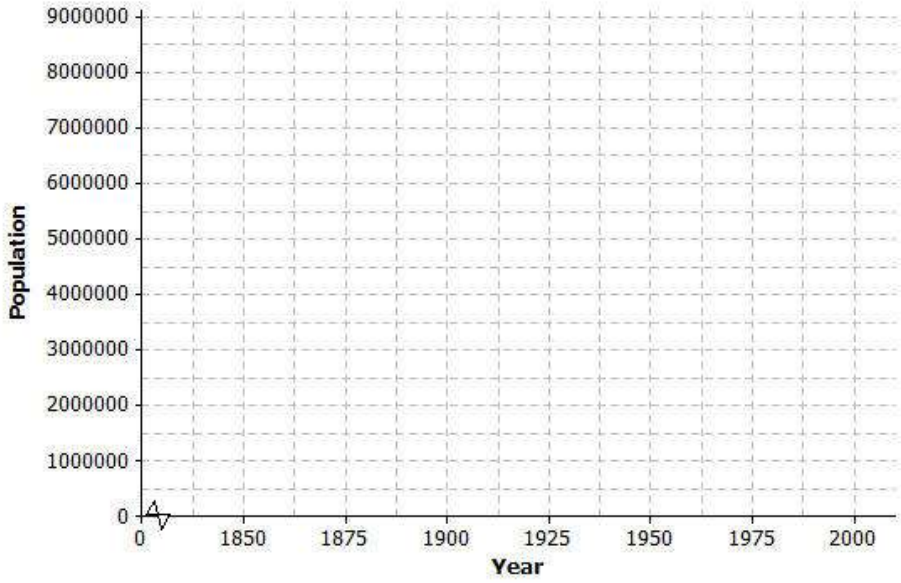
5. Find the growth of the population from 1900–1950. Write your answer in the table in the row for the year 1950.

6. Find the growth of the population from 1950–2000. Write your answer in the table in the row for the year 2000.

7. Does it appear that a linear model is a good fit for this data? Why or why not?

8. Describe how the population changes as the number of years increases.

9. Construct a scatter plot of time versus population on the grid below. Draw a line or curve that you feel reasonably describes the data.



10. Estimate the population of New York City in 1975. Explain how you found your estimate.