Name: _____ **Date:** _____

Lesson 4 Assessment

Years Since 1980	Total Sales (in millions of dollars)
0	1.19
5	1.40
10	1.91
15	1.88
21	2.01
25	2.12
26	2.38

1. Determine the sales in 2005. Write your answer in a complete sentence.

2. Let $S(t)$ represent the total sales of this company t years after 1980. Use your calculator to determine regression equation for this data set. Use function notation, and round to four decimal places as needed.

3. Use the regression equation to determine sales in 2005. Round your answer to the nearest hundredth. Write your answer in a complete sentence.

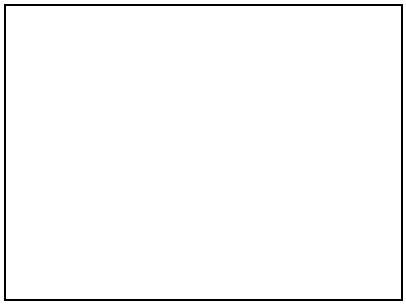
4. Your answers for questions 1 and 3 should be different. Why is this the case? Answer in a complete sentence.

5. Use the regression equation to determine the year in which sales should reach $3,000,000. Write your answer in a complete sentence.

6. Interpret the meaning of the statement $S(30) = 2.44$.

7. Explain the meaning of the slope of $S(t)$. Be sure to include appropriate units.

8. Use your graphing calculator to generate a scatterplot of the data *and* regression line on the same screen. You must use an appropriate viewing window. In the space below, draw what you see on your calculator screen, and write down the viewing window you used.



Xmin=_____

Xmax=_____

Ymin=_____

Ymax=_____