## Math 1743 - Math Center Worksheet Section 2.4

Given the sales model $S(t)=220-44.43 \mathrm{e}^{-0.3912}$ billion dollars t years after 1990,

1. Use the numerical method to approximate $S^{\prime}(4)$ to the hundredths place 2. Write an interpretation of your answer.

## Math 1743 - Math Center Worksheet Section 2.5

The following table gives the number of personal computers used in kindergarten through $12^{\text {th }}$ grade classrooms from 1981 through 1988 :

| Year | Number of PC's (millions) |
| :--- | :--- |
| 1981 | 0.10 |
| 1982 | 0.21 |
| 1983 | 0.40 |
| 1984 | 0.59 |
| 1985 | 0.87 |
| 1986 | 1.17 |
| 1987 | 1.48 |
| 1988 | 1.76 |

1. Find the best fit model for the data.
2. Use the limit definition of the derivative to differentiate your model.
3. Find the rate of change of the number of PC's used in classrooms in 1987.

## Math 1743 - Math Center Worksheet Section 2.6

Draw slope graphs for each of the given function graphs:
1.

2.

3.

4.


