Mathematics 122 Quiz #9   Name: _____

(This is Problem 11 from pare 116 of the text.) The table below shows the public debt of the United States between 1980 and 1993 as a function of the year.

Year	Debt (billions)	Year	Debt (billions)
1980	907.7	1987	2350.3
1981	997.9	1988	2602.3
1982	1142.0	1989	2857.4
1983	1377.2	1990	3233.3
1984	1572.3	1991	3665.3
1985	1823.1	1992	4064.6
1986	2125.3	1993	4351.3

(a) Estimate the derivative of this function in 1993. Give units with your answer and interpret it.

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   Interpretation:

(b) Use your to part (a) to estimate the public debt in 1994 and in the year 2000. Which answer should you have confidence in and why?

For 1994 _____

For 2000 _____

   Which to you have the most confidence in and why?