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INSTRUCTIONS: This is a graded assignment. Each person must submit their own solution. Document your assistance in accordance with (IAW) the Documentation of Written Work (DOWW). These problems are due at the beginning of class on Lesson 11 (9 September 08).

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One of the biggest issues in America is the price of gas. We all understand that the price of gas is based on the amount of oil produced. Below is a table that shows how many billions of barrels (MBBI) are produced each year<sup>1</sup>:

Year	MBBI	Year	MBBI
1880	30	1890	77
1900	149	1905	215
1910	328	1915	432
1920	689	1925	1069
1930	1412	1935	1655
1940	2150	1945	2595
1950	3803	1955	5626
1960	7674	1962	8882
1964	10310	1966	12016
1968	14104	1970	16690
1972	18584	1974	20389
1976	20188	1978	21922
1980	21722	1982	19411
1984	19837	1986	20246
1988	21338		

1. (10 points) Plot the data in either software package. Let the year be the independent variable and the MBBI be the dependent variable. From the graph, what kind of function do you think best fits the data? Why?
2. (10 points) Determine a linear model for this data. Explain how you arrived at it.
3. (10 points) Determine an exponential model for this data. Explain how you arrived at it.
4. (15 points) Using SSE, determine which model best fits the data. Summarize your conclusions in a 2-3 sentence paragraph.
5. (5 points) Neatness, clarity and documentation.

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<sup>1</sup>Data set taken from the website: [http://exploringdata.cqu.edu.au/datasets.htm#carb\\_dio](http://exploringdata.cqu.edu.au/datasets.htm#carb_dio), 4 October 2007.