Class work/ Homework Assignment

Regression Analysis

Name_____   Date ------------------
_____
In an effort to decide if there is an association between the year of a postal increase and the new
postal rate for first class mail, the data were gathered from the United States Postal Service. In 1981,
the United States Postal Service changed their rates on March 22 and November 1. This information
is shown in the table below.

Year	Rate
1971	0.08
1974	0.10
1975	0.13
1978	0.15
1981	0.18
1981	0.20
1985	0.22
1988	0.25
1991	0.29
1995	0.32

1) Make a scatterplot and describe the association between the year and the first class postal rate.

2) Create a model to predict postal rates from the year.

3) Do you think a linear model is appropriate here? Explain.

4) Interpret the slope of your model in context.

5) Interpret the intercept of your model in context.

6) Would it be better for customers for a year to have a negative residual or a positive residual
   from this model? Explain.