

Group Assignment (groups of 4):

Linear Regression

Calculator type: _____

Name: _____

Name : _____

Name: _____

Name : _____

All members in the group must have the same type of calculator. Answer the following questions as a group. This will be graded as a quiz, so make sure you are all in agreement on the answers. Give as many decimal places as your calculator shows.

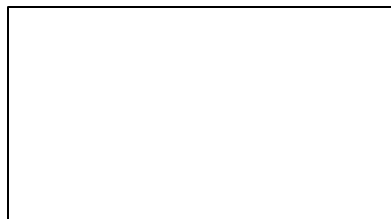
Use the following data concerning the number of cases of skin cancer (in millions) in the United States between 1988 and 1992 to answer the following questions:

YEAR	1988	1989	1990	1991	1992
# of cases (in millions)	5.8	6.0	6.3	6.5	6.7

- Align the data for the year, x , using the definition: x is the number of years after 1980. Write the new input values in the table:

# of years after 1980					
# of cases (in millions)	5.8	6.0	6.3	6.5	6.7

- Put the aligned data into the calculator and create a scatter plot. Make a rough sketch of the scatter plot (mostly for showing any curvature):



- Perform a **linear** regression on your calculator. State the equation as a **MODEL** (refer to the handout for the definition of a model), using three decimal places.

4. Describe what the slope of the line represents, based on the definitions of the variables.

5. Use the model to predict the number of cases of skin cancer in the United States in the year 2000.

Value of x used:

Show the steps you used on your calculator:

Number of cases of skin cancer in the year 2000:

6. Do you think this is a very accurate prediction? Explain your reasoning.