Scatter Plots

Algebra 2

Create a scatter plot of your graphing calculator, write a regression line/prediction equation and answer the questions that follow about each set of data.

1. **Technology** The table shows the percent of U.S. households with at least one personal computer.

Year	1984	1989	1993	1997	2001	2003
Percent	8.2	15.0	22.8	36.6	56.3	61.8

A. Regression line: _____

B. Predict the percent of households with at least one personal computer in 2012. _____

C. Is this a positive or negative correlation? _____

2. **Housing** The table shows the mean selling price of new, privately-owned, single-family homes for some recent years.

Year	1994	1996	1998	2000	2002	2004
Price ($1000)	154.5	166.4	181.9	207.0	228.7	273.5

A. Prediction equation: _____

B. Predict the selling price of a new, privately-owned, single-family home in 2010. _____

C. Do the results of your prediction home true today considering the current housing/economic situation in the United States? Why or why not? _____

D. Is this a positive or negative correlation? _____

3. **NBA** The table shows the number of field goals and assists for some of the members of the Miami Heat in a recent NBA season.

Field Goals	Assists
472	384
353	97
278	81
283	79
238	18
265	130
186	94
162	95

A. Write a prediction equation. _____

B. Approximately how many assists will a player have if they made 275 field goals? _____

C. Approximately how many ***field goals*** will a player have if they made 88 ***assists***? _____

4. **Financial Literacy** Joe is analyzing the sales of his company. The table shows the total sales for each of six years.

Year	2003	2004	2005	2006	2007	2008
Sale ($ Millions)	31.2	34.6	18.9	37.7	41.3	45.1

A. Find a regression equation for the data. _____

B. Use the regression equation to predict the sales in 2015. _____

C. Is there one piece of data that could be thrown out because it is inconsistent with the rest of the data? If so, what year did it occur? _____

D. Remove this piece of data, write an new regression line. _____ Predict the sales in 2015? _____ Did the prediction change? _____