Week 3: 8/31-9/4 **Math I** **Due: 9/8**

Objectives:
1. To write an equation of a trend line and of a line of best fit.
2. To use a trend line and a line of best fit to make predictions.
3. To use two-way frequency tables to summarize, interpret, and analyze trends in data.
4. To review contents in chapter.
5. To apply contents of chapter to a real life situation.

Monday:
In Class:
Section 6-4: #1-4, 6, 7
Foldables: Scatter Plots and Line of Best Fit
Homework:
*Section 6-4: Scatter Plots and Trend Lines Handout attached
*Go to text website: www.pearsonsuccessnet.com
Click on section 6-4 and WATCH online problems 1-3 and complete "Got It's" that follow. (This section is a little difficult, so try your best and we will go over everything in class tomorrow).

Tuesday:
In Class:
Section 6-5: #1-6
Foldables: Two Way Frequency Tables
Homework:
Section 6-5: #7-16

Wednesday:
Look at the "Putting it All Together" Activity on page 428 of your text. Read through the problem and gather some ideas on how you would go about solving the problem. (There is not one right way, so many will have different ideas). Please post your ideas in Google Classroom.

Thursday:
In Class:
Go over each other's ideas on how to go about solving the "Putting it All Together" problem.
Homework:
Complete the "Putting it All Together" problem. There is a handout you need to complete attached that will guide you.

Friday:
Complete Chapter 6 Review on pages 425-427 #1-20
***Remember, there is no class Monday due to the holiday, so this packet will be due next Tuesday. We will review the chapter on Tuesday and you will have your first test on Thursday.

Name _____Hour_____ Date_____

Scatter Plots and Lines of Best Fit Worksheet

1. **MUSIC** The scatter plot shows the number of CDs (in millions) that were sold from 1999 to 2005. If the trend continued, about how many CDs were sold in 2006?
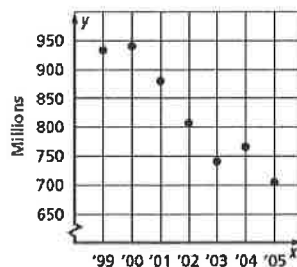

2. **FAMILY** The table below shows the predicted annual cost for a middle income family to raise a child from birth until adulthood. Draw a scatter plot and describe what relationship exists within the data.

Cost of Raising a Child Born in 2003					
Child's Age	3	6	9	12	15
Annual Cost ($)	10,700	11,700	12,600	15,000	16,700
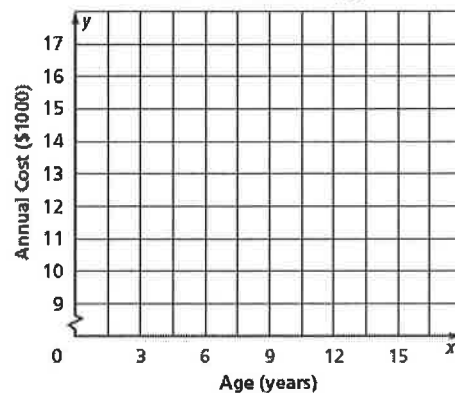
3. Make a scatter plot of the data in the table. Draw a line of best fit. What is the equation of the line of best fit?

X	-2	-2	-1	0	1	1	1	2	2	3
Y	2	3	2	1	0	1	-1	-1	-2	-2
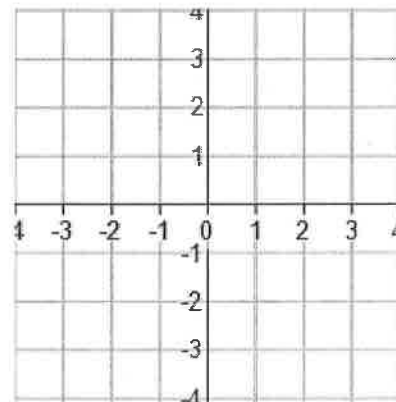
4. **EDUCATION** The table at the right gives the number of hours spent studying for a science exam and the final exam grade.

| Study Hours	3	2	5	1	0	4	3
Grade	84	77	92	70	60	90	75

   a. Draw a scatter plot of the data and draw in the line of best fit.

   b. What is the equation for the line of best fit?

   c. Predict the grade for a student who studied for 6 hours.

   d. Could this line go on forever? Why or why not?
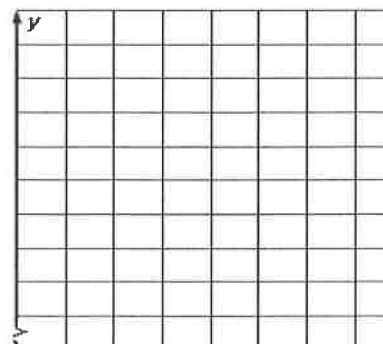
5. **BASEBALL** The scatter plot shows the average price of a major-league baseball ticket from 1997 to 2006.

   a. Use the points (2001, 17.60) and (2002, 18.75) to write the slope-intercept form of equation for the line of fit shown in the scatter plot.

Baseball Ticket Prices

   b. Use your equation to tell the price of a ticket in 2009. Is this extrapolation or interpolation?
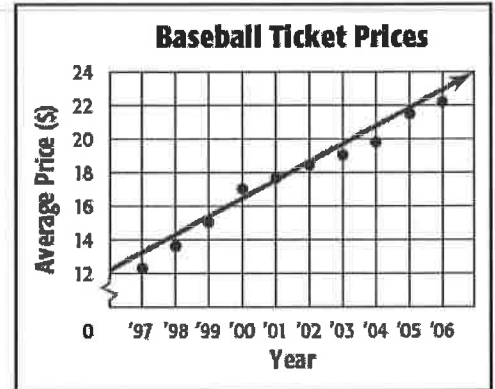
Source: Team Marketing Report, Chicago

6. **DISEASE** The table shows the number of cases of Foodborne Botulism in the United States for the years 2001 to 2005.

U.S. Foodborne Botulism Cases					
Year	2001	2002	2003	2004	2005
Cases	39	28	20	16	18

   a. Draw a scatter plot and determine, what relationship, if any, exists in the data.

U.S. Foodborne Botulism Cases

   b. Draw a line of fit for the scatter plot, and write the slope-intercept form of an equation for the line of fit.
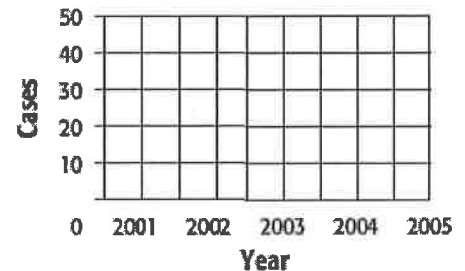
7. **ZOOS** The table shows the average and maximum longevity of various animals in captivity.

   a. Draw a scatter plot and determine, what relationship, if any, exists in the data.

Longevity (years)								
Avg.	12	25	15	8	35	40	41	20
Max.	47	50	40	20	70	77	61	54

Animal Longevity (Years)

   b. Draw a line of fit for the scatter plot, and write the slope-intercept form of an equation for the line of fit.

   c. Predict the maximum longevity for an animal with an average longevity of 33 years. Is this an example of Extrapolation or Interpolation?
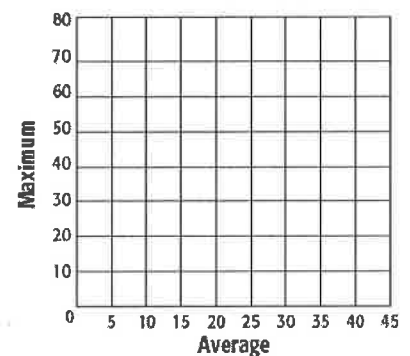
"Put it All Together" for Chapter 6

Complete this handout to guide you to solving the "Putting it All Together" problem on page 428 in your text.

***Make sure to show all work to receive full credit!

1. What is the mean and median temperature for Oakville?

Mean=

Median=

2. What is the mean and median temperature for Fairview?

Mean=

Median=

3. What is the mean rainfall for Oakville and Fairview?

Oakville=

Fairview=

4. On a separate sheet of graph paper, make a scatter plot showing the temperature of both cities. Make a second scatter plot showing the rainfall of both cities. Each scatter plot will have two sets of data, one for Oakville and one for Fairview. Use two different colors to differentiate between the two cities. Please see the example I attached if you are unsure about how to complete these.

5. Which city would be the best location for this baseball tournament and why? Explain using at least 3 sentences.