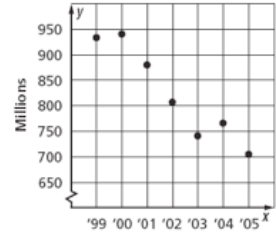Name   Number_   Perod_

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
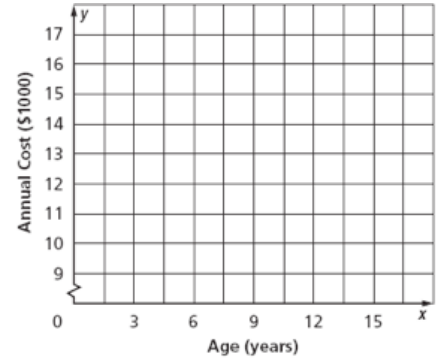
3. Make a scatter plot of the data in the table. Draw a line of best fit.
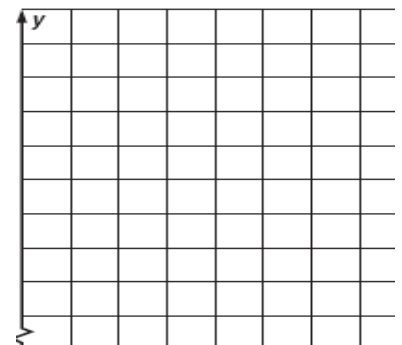
| X	-2	-2	-1	0	1	1	1	2	2	3
Y	2	3	2	1	0	1	-1	-1	-2	-2
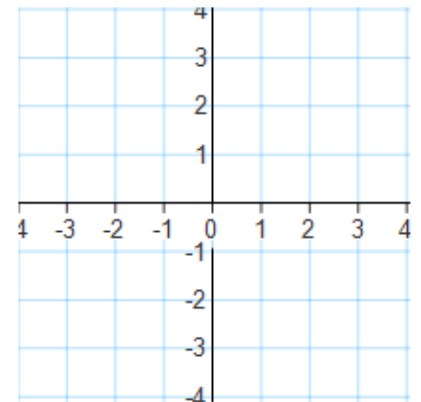
4. **EDUCATION** The table at the right gives the number of hours spent studying for a science exam and the final exam grade.

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.

   b. Draw in a 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. What would a ticket in 2009 cost? How do you know?

   b. What would a ticket in 1995 cost? How do you know?

Baseball Ticket Prices
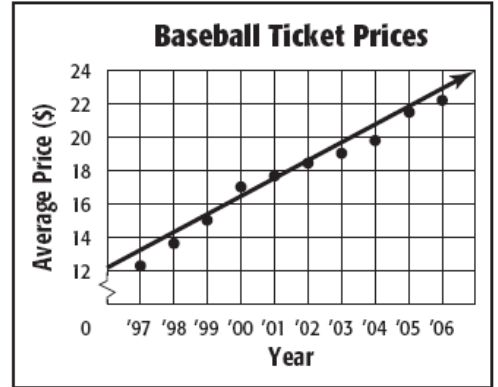
Source: Team Marketing Report, Chicago

6. **DISEASE** The table shows the number of cases of Foodborne Botulism in the United States for the years 2001 to 2005.
   a. Draw a scatter plot and determine the type of correlation.

   b. Draw a line of fit for the scatter plot.

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

U.S. Foodborne Botulism Cases
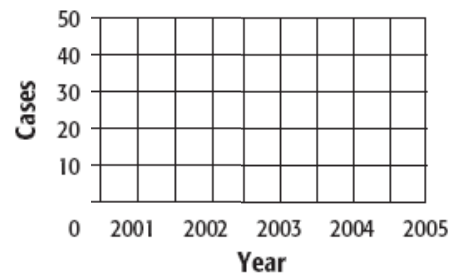
7. **ZOOS** The table shows the average and maximum longevity of various animals in captivity.
   a. Draw a scatter plot and determine the type of correlation.

   b. Draw a line of fit for the scatter plot.

   c. Predict the maximum longevity for an animal with an average longevity of 33 years.

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

Animal Longevity (Years)