

Algebra 1

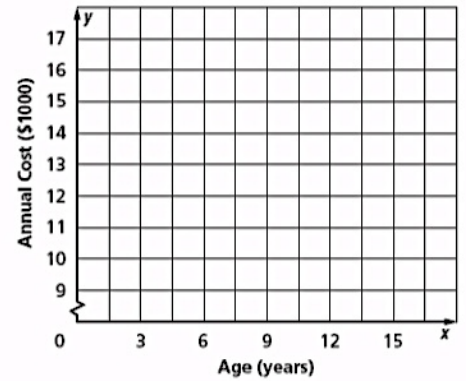
Name: _____

4.4 Homework #2

1. The table below shows the predicted annual cost for a middle-income family to raise a child from birth until adulthood.

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

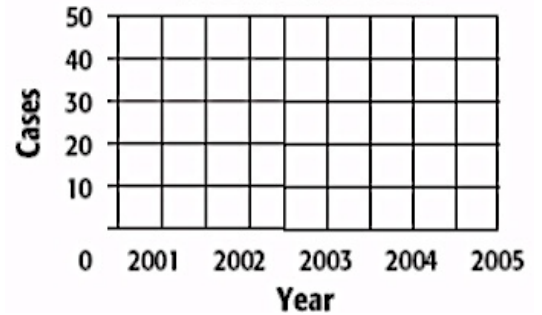
- Draw a scatter plot of the data.
- Describe what relationship exists with the data.



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

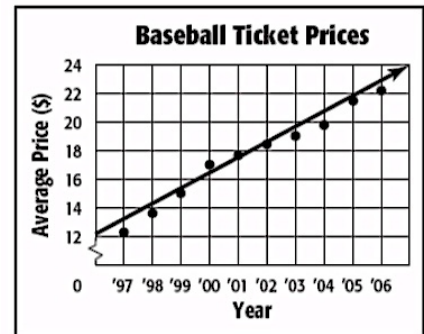
U.S. Foodborne Botulism Cases					
Year	2001	2002	2003	2004	2005
Cases	39	28	20	16	18

- Draw a scatter plot.
- Determine, what relationship, if any exists in the data.



3. The scatter plot shows the average of a major league baseball ticket from 1996 to 2006. Let $x = 0$ for the year 1996.

- In 2001 a ticket cost \$17.60. Ordered pair: (,)
In 2002 a ticket cost \$18.75. Ordered pair: (,)
- Using the ordered pairs above, write an equation for the line of best fit in slope-intercept form.



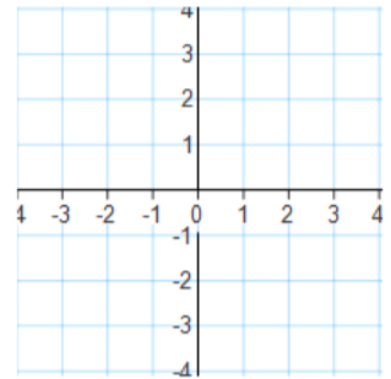
Source: Team Marketing Report, Chicago

- Use your equation to tell the price of a ticket in 2004. Check the graph to determine if your answer is accurate.
- Is this extrapolation or interpolation?

4. Make a scatter plot of the data in the table.

X	-2	-2	-1	0	1	1	1	2	2	3
Y	2	3	2	1	0	1	-1	-1	-2	-2

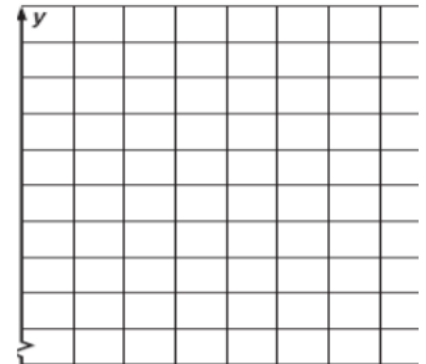
- Draw a line of best fit.
- Write an equation for the line of best fit in slope-intercept form.



5. The table at the right gives the number of hour 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

- Draw a scatter plot and draw a line of best fit.
- Write an equation for the line of best fit.

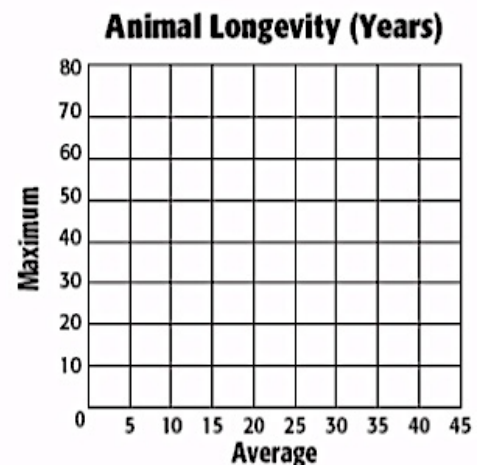


- Predict the grade of a student who studied for 6 hours.

6. The table shows the average and maximum longevity of various animals in captivity.

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

- Draw a scatter plot and draw a line of best fit.
- Write an equation for the line of best fit.



- Predict the maximum longevity for an animal with an average longevity of 33 years.
- Determine, what relationship, if any exists in the data.
- Is this an example of Extrapolation or Interpolation?