8.1 HW #3

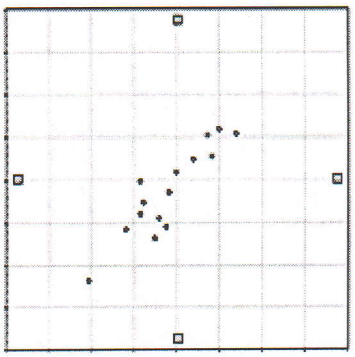
READY, SET, GO! Name Period #

READY

Topic: Interpreting data from a scatterplot

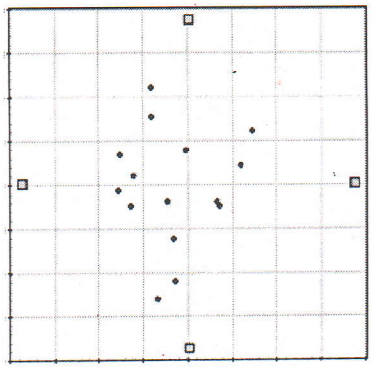
1. The scatter plot compares shoe size and height in adult males. Based on the graph, do you think there is a relationship between a man's shoe size and his height?

   Explain your answer.



2. The scatter plot compares left-handedness to birth weight. Based on the graph, do you think being left-handed is related to a person's birth weight?

   Explain your answer.



SET

Topic: Two-way frequency tables

Here is the data from Mr. Austin's 10-point quiz. Students needed to score 6 or better to pass the quiz.

1st Period Math	2nd Period Math	3rd Period Math
6, 4, 3, 7, 5, 9, 5, 4, 6, 6, 8, 5, 7, 3, 6, 2, 8, 7, 10, 9	3, 3, 8, 6, 6, 9, 5, 8, 5, 3, 5, 5, 7, 5, 7	9, 8, 10, 5, 9, 7, 8, 9, 8, 3, 8, 10, 8, 7, 5

3. Make a two-way frequency table showing how many students passed the quiz and how many students failed the quiz in each class.

	1st period	2nd period	3rd period	Total
Passed				
Failed				
Total				

Use a colored pencil to lightly shade the cells containing the *joint frequency* numbers in the table. The un-shaded numbers are the *marginal frequencies.* (Use these terms to answer the following questions.)

4. If Mr. Austin wanted to see how many students in all 3 classes combined passed the quiz, where would he look?

5. If Mr. Austin wanted to write a ratio of the number of passing students compared to the number of failing students for each class, where would he find the numbers he would need to do this?

6. Make a two-way frequency table that gives the *relative frequencies* of the quiz scores for each class.

	1st Period	2nd Period	3rd Period	Total
Passed				
Failed				
Total				

GO

Topic: Organizing data.

7. Sophie surveyed all of the 6th grade students at Reagan Elementary School to find out which TV Network was their favorite. She thought that it would be important to know whether the respondent was a boy or a girl so she recorded her information the following way.

Animal Planet	*Cartoon Network*	*Disney*	*Nickelodeon*
GGBBBB BGBBBGBBB GGBB BBBBBB	BBBBBBB BBGGGBBBG BGBGGGBGG	GGGGGGBBBBBB GBGBGG BBBGGBGG GGGBBBGGGGGB	BBBBGGGGGGGGG GGGGGGBB GGGGBGGGGGGGGGBBBB BGGGGGGGG

Sophie planned to use her data to answer the following questions:

I. Are there more girls or boys in the 6th grade?
II. Which network was the boys' favorite?
III. Was there a network that was favored by more than 50% of one gender?

But when she looked at her chart, she realized that the data wasn't telling her what she wanted to know. Her teacher suggested that her data would be easier to analyze if she could organize it into a two-way frequency chart. Help Sophie out by putting the frequencies into the correct cells.

Favorite TV Networks	Girls	Boys	Totals
Animal Planet			
Cartoon Network			
Disney			
Nickelodeon			
Totals			

Now that Sophie has her data organized, use the two-way frequency chart to answer her 3 questions.

a. Are there more girls or boys in the 6th grade?

b. Which network was the boys' favorite?

c. Was there a network that was favored by more than 50% of one gender?