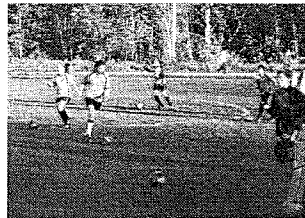


Name:

Modeling Data 8.3

Ready, Set, Go!

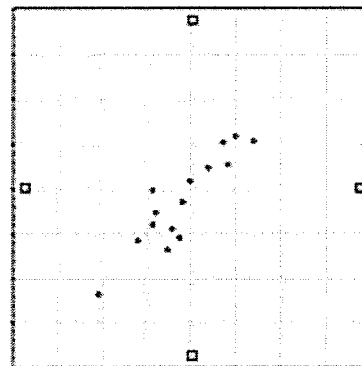
©2012 <http://flic.kr/y/qffHU7>

Ready

Topic: Interpreting data from a scatter plot

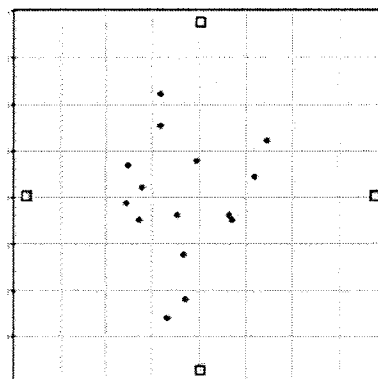
1. The scatter plot compares shoe size and height in adult males. Based on the graph, do you think there is a relationship between a man's shoe size and his height?

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.



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Set

Topic: Two-way frequency tables.

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

1 st Period Math	2 nd Period Math	3 rd 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 failed in each class.

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

4. 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.)

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

6. 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?

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

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

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Modeling Data | 8.3

Go

8. 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 this way.

Animal Planet	Cartoon Network	Disney	Nickelodeon
GGBBBB BGBBBGBBB GGBB BBBB	BBBBBBB BBGGGBBBG BGBGGGBGG	GGGGGBBBBBB GBGBGG BBBGBGG GGBBBGGGGGB	BBBBGGGGGGGG GGGGGGBB GGGBGGGGGGGGGG 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.

<i>Favorite TV Networks</i>	<i>Girls</i>	<i>Boys</i>	<i>Totals</i>
Animal Planet			
Cartoon Network			
Disney			
Nickelodeon			
<i>Totals</i>			

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?

Need Help? Check out these related links:

<http://stattrek.com/statistics/two-way-table.aspx>

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