

BRING TEXTBOOK VOLUME 2!

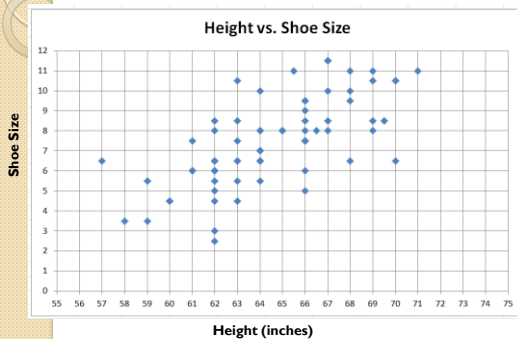
Created by Mr. Lischwe

Warmup 4/(#of sides on a 13 – gon)

- 1) I am going to show you our height vs. shoe size scatter plot. Make a prediction of what it will look like. (What type of correlation? How strong?)

Think of your own real-world situations that would have:

- 2) A positive correlation
- 3) A negative correlation
- 4) No correlation
- 5) **BONUS:** Do both a strong positive correlation and a weak positive correlation



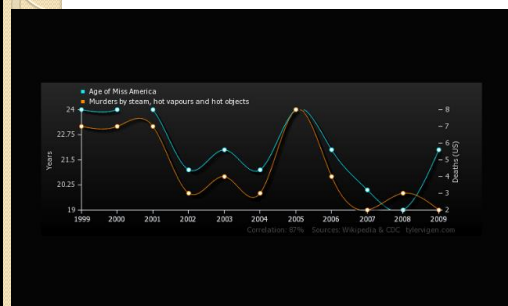
Worksheet Answers

- Document Camera

Be aware...

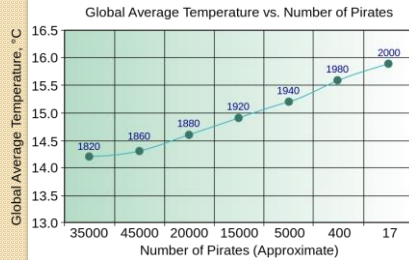
- Just because two things are correlated **does not mean** that one causes the other...

Age of Miss America vs. Murders by steam, hot vapors and hot objects...



Pirates cause Global Warming...

- Don't believe me? Here's my proof!



Do p.681 (#3)

- Writing the equation of a line of best fit
- Understanding what the equation means
- Using your equation to make predictions

#3

- The scatter plot shows the number of girls who participate in ice hockey. (Examples 3 and 4)
- Write an equation in slope-intercept form for the line of best fit that is drawn, and interpret the slope and y-intercept. **Sample answer: $y = 500x + 2,250$; Every year an additional 500 girls play ice hockey. In 1996, 2,250 girls played ice hockey.**
 - Use the equation to make a conjecture about the number of girls that will participate in ice hockey in 2020. **Sample answer: 14,250 girls**



Table of Contents

p. 20 Scatter Plots
p. 21 Frequency Tables

Sports/Music/Movies

See Guided Notes
FREQUENCY

	Spanish	French	German	Total
Boys	10	2	8	20
Girls	15	12	3	30
Total	25	14	11	50

- What percent of the students are girls who take French?
 $\frac{12}{50} = 24\%$
- What percent of the students who take Spanish are boys?
 $\frac{10}{25} = 40\%$
- What percent of the students take German?
 $\frac{11}{50} = 22\%$
- What percent of the girls do not take German?
 $\frac{27}{30} = 90\%$

	Spanish	French	German	Total
Boys	10	2	8	20
Girls	15	12	3	30
Total	25	14	11	50

- In this sample, is there an association between gender and whether or not the student takes French?

Boys: $\frac{2}{20} = 10\%$

10% of the boys took French, but 40% of the girls took French. So girls were more likely to take French.

Girls: $\frac{12}{30} = 40\%$

- Is there an association between gender and whether or not the student takes Spanish?

Boys: $\frac{10}{20} = 50\%$

Half of the boys took Spanish, and half of the girls took Spanish. Both genders were equally likely to take Spanish.

Girls: $\frac{15}{30} = 50\%$

The manager of a store selling sports equipment conducted a survey. She asked 145 girls if they had ever been fishing and if they had ever been skiing. There are 46 girls who said they had been fishing, and of those 16 have been skiing too. Of all those surveyed 70 said they had been skiing.

		Fishing	
		Yes	No
Skiing	Yes	16	54
	No	30	45

Rounded to the nearest whole number, what is the percent of girls surveyed who had never been fishing?

68

Rounded to the nearest whole number, what is the percent of girls surveyed who had never been skiing?

52

The table shows the rankings and tuitions of the top 125 universities in the United States.

Ranking	Tuition			
	<\$20,000	\$20,000-\$29,000	\$30,000-\$39,000	>\$40,000
1-25	0	0	8	17
26-50	0	6	10	9
51-75	3	12	6	4
76-100	4	8	12	1
101-125	8	8	9	0

What is the frequency (percent) of all the colleges that were in the top 50 and cost less than \$40,000?

A 0.19

B 0.21

C 0.26

D 0.48

A

Due at the end of class:

- p. 694 (7, 9, 15)