Unit: Scatter Plots and Data
Student Handout 6

Name _____

Date _____Pd_____

RELATIVE FREQUENCY

RELATIVE FREQUENCY	• While _____ is the number of times that something occurs, _____ frequency tells us the number of times something occurs compared to the _____.
CALCULATING RELATIVE FREQUENCY	• To find relative frequency, set up a ratio comparing $\frac{\text{frequency}}{\text{total}}$. Then, convert the ratio to a _____. • Read questions carefully to determine whether the "total" is referring to the entire table or a specific _____ or _____.

1. In a survey of 50 people, 23 individuals answered that their favorite ice cream flavor was vanilla. What was the relative frequency of individuals who chose vanilla? Express your answer as a ratio and a percent.

_____

2. Complete each blank space in the two-way table at the right.

Use the two-way table to answer 3-6. Express each relative frequency as a ratio and a percent. Round to the nearest whole number when necessary.

	GYM MEMBERSHIP	NO GYM MEMBERSHIP	TOTAL
FLOSSES REGULARLY	21	11	
DOESN'T FLOSS REGULARLY	24	44	
TOTAL			

3. Of the people surveyed, what is the relative frequency of people who floss regularly?

Ratio: _____

Percent: _____

4. Of the people who own a gym membership, what is the relative frequency of people who floss regularly?

Ratio: _____

Percent: _____

5. Of the people who do not own a gym membership, what is the relative frequency of people who floss regularly?

Ratio: _____

Percent: _____

6. Does there seem to be a relationship between people who own a gym membership and people who floss regularly? Explain.

In each question below, express relative frequencies as percentages rounded to the nearest whole number.

7. Liz wanted to see if there was any association between people who have kids and people who have pets. The two-way table shows her results from a survey. Complete the blank spaces.

a. Of the people who were surveyed, what is the relative frequency of people who have pets?

b. Of the people who have kids, what is the relative frequency of people who have pets?

	PETS	NO PETS	TOTAL
KIDS		22	63
NO KIDS	23		
TOTAL			125

c. Of the people who do not have kids, what is the relative frequency of people who have pets?

d. Does there seem to be any association between people who have kids and people who have pets? Explain.

8. Josh wanted to test the theory that red cars receive more speeding tickets than blue cars. He asked drivers about the color of their vehicle and whether they'd ever received a speeding ticket. Fill in the blanks in his two-way table below.

	RED VEHICLE	BLUE VEHICLE	TOTAL
SPEEDING TICKET	41	87	
NO SPEEDING TICKET			92
TOTAL	70		

a. Of the people surveyed, what percent have received a speeding ticket?

b. Of the people who drive red vehicles, what percent have received a speeding ticket?

c. Of the people who drive blue vehicles, what percent have received a speeding ticket?

d. What can Josh conclude from his survey?

9. Use the results in Josh's two-way table to answer the following questions.

a. What is the frequency of people who have not received a speeding ticket? _____

b. What is the relative frequency of people who have not received a speeding ticket? _____

c. Explain in your own words how frequency and relative frequency are different.

Summarize today's lesson: