

Name: \_\_\_\_\_ Period: \_\_\_\_\_

Score: \_\_\_\_\_  
 \_\_\_\_\_ % = \_\_\_\_\_

## HW 5-2: More Two-Way Tables

1. One hundred customers in a restaurant were asked whether they liked chicken or beef and whether they liked rice or pasta. Out of 30 customers that liked rice, 20 liked chicken. There were 60 customers that liked chicken. Construct a two-way table summarizing the data.

	Chicken	Beef	Total
Rice	20	10	30
Pasta	40	30	70
Total	60	40	100

2. The two-way table shows the number of students that do or do not do chores at home and whether they receive an allowance or not. Find the relative frequencies of students in the survey by columns.

	Allowance	No Allowance	Total
Chores	13;	3;	;
No Chores	5;	4;	;
Total	;	;	;

3. When you look at the relative frequencies by columns, are you doing it according to allowance or chores?

4. The two-way table shows the number of students that message on a daily basis. Find the relative frequencies of students in the survey by rows.

	Text Message	Instant Message	Total
7 <sup>th</sup> Graders	59;	25;	;
8 <sup>th</sup> Graders	59;	41;	;
Total	;	;	;

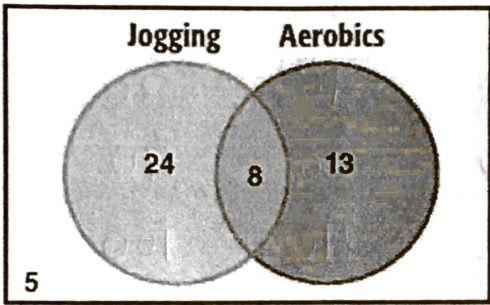
5. When you look at the relative frequencies by rows, are you doing it according to grade or messaging?

6. The two-way table shows the number of hours students studied and whether they studied independently or with a study group. What is the relative frequency of students that studied independently for more than two hours to the total number of students that studied independently?

	Studied Less Than 2 Hours	Studied More Than 2 Hours	Total
Studied Independently	12	4	
Studied with a Study Group	8	11	
Total			

- A) 0.4                      B) 0.33  
 C) 0.25                      D) 0.11

7. The Venn diagram shows the number of students that exercise in different ways. Construct a two-way table that displays the data.



	JOGGING	NO JOGGING	TOTAL
Aerobics	8	13	21
NO Aerobics	24	5	29
Total	32	18	50

8. Of the students that jog for exercise, what percent also do aerobics?
9. Write the ratio of students that do neither aerobics nor jogging compared to the total students as a decimal.

0.1

10. What fraction of the students that do aerobics do not jog either?
11. As each person entered the theater, Aaron counted how many of the 105 people had popcorn and how many had a drink. He found that out of 84 people that had popcorn, only 10 did not have a drink. Six people walked in without popcorn or a drink. Construct a two-way table summarizing the results.


The two-way table shows the number of Sasha's soccer teammates that are in her Math class and English class.

	Math Class	Not In Math Class
English Class	4	2
Not In English Class	1	3

\* Need the #'s  
←

12. How many teammates does Sasha have?
13. Write the ratio of students in both of Sasha's classes to all her teammates as a decimal.
14. Of the teammates in her math class, which percentage is greater?

0.4

- a) the percentage of teammates that are in her English class
- b) the percentage of teammates that are not in her English class

15. The two-way table shows the places that males and females volunteered in the past month. Do a greater percentage of males or females volunteer at the animal shelter? Explain your response.

	Males	Females	Total
Animal Shelter	26	21	47
Hospital	13	17	30
Library	9	14	23
Total	48	52	100

Males, because

$$\frac{26}{47} > \frac{21}{47}$$

Megan surveyed the 8<sup>th</sup> grade to find which school activities they attended last weekend. The results are shown in the two-way tables below.

16. Find the relative frequencies by row

17. Find the relative frequencies by column

	Attended School Play	Did Not Attend School Play	Total
Attended Basketball Game	55 ;	63 ;	118 ;
Did Not Attend Basketball Game	88 ;	15 ;	103 ;
Total	143 ;	78 ;	221 ;

	Attended School Play	Did Not Attend School Play	Total
Attended Basketball Game	55 ; 38%	63 ; 81%	118 ; 53%
Did Not Attend Basketball Game	88 ; 62%	15 ; 19%	103 ; 47%
Total	143 ; 100%	78 ; 100%	221 ; 100%

18. What is the relative frequency of students that attended the basketball game and the school play to the total number of students that attended the school play?

- A) 0.25                      B) 0.38                      C) 0.47                      D) 0.71

19. Which of the following is a valid conclusion about the data?

- A) Of the students that attended the basketball game, more than half of them also attended the school play.
- B) More than half of the students that were surveyed attended the school play and did not attend the basketball game
- C) Students that attended the school play were more likely to not attend the basketball game**
- D) Most students did not attend either event.