

Name: Selected Answers Period: \_\_\_\_\_

Score: _____ / _____ %
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**HW 7-4 HONORS: Two-Way 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 <sup>st</sup> Period Math	2 <sup>nd</sup> Period Math	3 <sup>rd</sup> Period Math
6, 4, 3, 7, 5,	3, 3, 8, 6, 6,	9, 8, 10, 5, 9,
9, 5, 4, 6, 6,	9, 5, 8, 5, 3,	7, 8, 9, 8, 3,
8, 5, 7, 3, 6,	5, 5, 7, 5, 7	8, 10, 8, 7, 5
2, 8, 7, 10, 9		

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

	1 <sup>st</sup> Period	2 <sup>nd</sup> Period	3 <sup>rd</sup> Period	Total
Passed	12	7	12	31
Failed	8	8	3	19
Total	20	15	15	50

2. 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*.

**Multiple Choice**

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

This table represents survey results from a sample of students regarding preferred mode of transportation to and from school.

	Walk	Bike	Car Pool	Bus	Total
Boys	37	47	27	122	233
Girls	38	22	53	79	192
Total	75	69	80	201	425

5. What percent of boys prefer walking to school?

16%

6. What percent of girls prefer taking the bus to school?

7. What percent of everyone preferred to car pool?

19%

8. What is the most preferred mode of transportation for girls and for boys?

The two-way table below contains survey data about boys and girls shoes.

	Athletic shoes	Boots	Dress Shoe	Total
Girls	21	35	60	116
Boys	50	16	10	76
Total	71	51	70	192

9. What percent of students are girls who prefer boots?

18%

10. What percent of students are boys who prefer athletic shoes?

11. What percent of total people liked boots?

27%

12. What percent of total people were girls?

A survey was given to students regarding the policy of restricting cell phone use in classrooms. Out of the 65 students who responded, 17 were male. There were a total of 46 students that agreed with the policy and 30 of them were female. Construct a two-way table to summarize the data.


13. What percent of the total students who responded were male?

26%

14. What percent of the males agreed with the policy?

15. What percent of total respondents were females who disagreed with the policy?

28%

16. What percent of students that agreed with the policy were female?

Felipe surveyed students at his school. He found that 78 students prefer to attend sporting events rather than movies and 57 of those students were in the 8<sup>th</sup> grade. There are 13 eighth grade students that prefer to watch movies. Nine students in the 9<sup>th</sup> grade preferred movies to going to a sports game. Complete the two-way table summarizing the data.

	8 <sup>th</sup> Grade	9 <sup>th</sup> Grade	Total
Sporting Events	57		78
Movies	13	9	
Total			

17. What percent of total students surveyed were in the 8<sup>th</sup> grade?

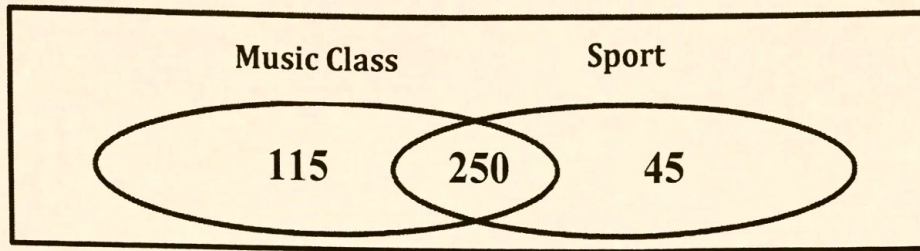
70%

18. What percent of students that liked going to sports events were in the 8<sup>th</sup> grade?

19. What percent of students in the 9<sup>th</sup> grade prefer watching a movie?

30%

The data from a survey of 440 students are shown in the Venn diagram. The students were asked whether or not they were enrolled in a music class and whether or not they played a sport.



Construct a two-way table summarizing the data.

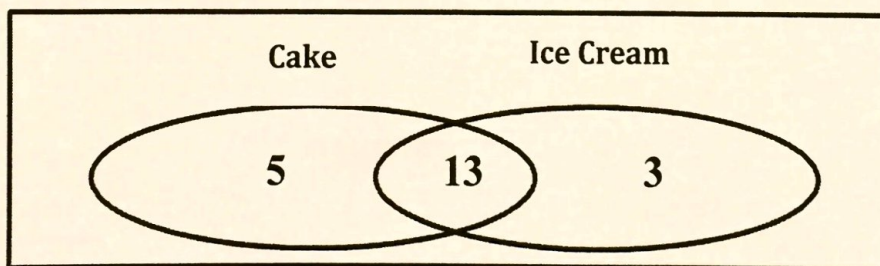
	Music Class	Sport	Total
Music Class	115	250	365
Sport	250	45	295
Total	365	295	660

20. What percent of total students play a sport?

21. What percent of students that play a sport are not in a music class? *15%*

22. What percent of students that are in a music class also play a sport?

The data from a survey of 25 students are shown in the Venn diagram. The students were asked whether they had cake or ice cream at their last birthday party.



Construct a two-way table summarizing the table.

	Cake	Ice Cream	Total
Cake	5	13	18
Ice Cream	13	3	16
Total	18	16	34

23. What percent of students that did not have cake also did not have ice cream? *57%*

24. What percent of students that had ice cream also had cake?