

NAME: \_\_\_\_\_

## Relative Frequency: Classwork

Show your work. Round percents to the nearest tenth.

1. Sandy wants to find out if boys enjoy the same types of movies as girls. She took a survey and put her results in the two-way table below:

		Favorite Movie Type			Frequency
		Action	Comedy	Romance	
Gender	Boy	26	24	6	
	Girl	19	27	15	
Frequency					

- Find the frequency for each age group by adding the numbers in each row.
- Find the frequency for each movie type by adding the numbers in each column.
- Complete the table below to show the relative frequency of each gender for the movie type.

		Movie Type		
		Comedy	Action	Romance
Gender	Boy	57.8%		
	Girl			

What do these frequencies tell you about the data?

- Complete the table below to show the relative frequency of each movie type for the gender.

		Movie Type		
		Comedy	Action	Romance
Gender	Boy	46.4%		
	Girl			

What do these frequencies tell you about the data?

- Explain the difference between the percentages in part C and the percentages in part D.

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**2.** Danny asked 97 students about their favorite snack and whether or not they play a sport regularly. Of the 55 students who play a sport, 24 like chips and 16 like popcorn. There were 28 students who do not play sports who prefer chips. Of the students who prefer fruit, there were five times as many students who play a sport than those that do not.

a. Complete the two-way table by filling in the data from the survey.

		Favorite Snack			Frequency
		Fruit	Chips	Popcorn	
Sport	Yes				
	No				
Frequency					

b. Complete the table below to show the relative frequency of each snack based on whether the student plays a sport or not.

		Favorite Snack		
		Fruit	Chips	Popcorn
Sport	Yes			
	No			

c. Complete the table below to show the relative frequency of sports players based on their favorite snack.

		Favorite Snack		
		Fruit	Chips	Popcorn
Sport	Yes			
	No			

**3.** Rizzo asked students if they own dogs or cats. 29 students own a dog and 27 students own a cat. 17 students own both a cat and a dog, and 23 students own neither.

a. Complete the two-way table by filling in the data from the survey.

		Dog		Frequency
		Yes	No	
Cat	Yes			
	No			
Frequency				

b. How many total students were surveyed?

c. What percent of dog owners also own a cat?

d. What percent of cat owners also own a dog?

e. Make up another question that could be answered using the two-way table.

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## Relative Frequency: Homework

4. Kenickie surveyed 38 students on what they were wearing. Of the 23 students who were wearing jeans, 16 were also wearing basketball shoes. Of the 14 students who were not wearing basketball shoes, half were wearing jeans and half were not.
- a. Complete the two-way table by filling in the data from the survey.

		Jeans		Frequency
		Yes	No	
Basketball Shoes	Yes			
	No			
Frequency				

- b. What percent of students wearing jeans are also wearing basketball shoes?
- c. What percent of students not wearing jeans are also not wearing basketball shoes?
5. Burger Palace is keeping track of the items ordered with burgers. Of the 52 customers who ordered french fries, 33 also ordered a milkshake. 23 customers did not order a milkshake. 16 customers ordered onion rings.
- a. Complete the two-way table by filling in the data from the survey.

		Side Order		Frequency
		French Fries	Onion Rings	
Milkshake	Yes			
	No			
Frequency				

- b. How many total customers were served?
- c. What percent of people who ordered french fries also ordered a milkshake?
- d. What percent of people who ordered a milkshake also ordered french fries?