

Two-way Frequency Table Worksheet

Name: _____

1. The two-way frequency table, shown below, displays the data collected from a random group of high school students regarding whether they "liked" snowboards and/or "liked" skateboards. Answer the questions below, regarding this table.

	Likes Skateboards	Do not like Skateboards	Total
Likes Snowboards	15	12	27
Do not like Snowboards	23	18	41
Total	38	30	68

- How many students participated in the survey?
- How many students said they like snowboards? What type of frequency is this?
- How many students like snowboards, but do not like skateboards? What type of frequency is this?

2. A public opinion survey explored the relationship between age and support for increasing the minimum wage. The results are found in the following two-way frequency table.

	For	Against	No Opinion	TOTAL
Ages 21-40		20	5	50
Ages 41-60	30		15	
Over 60	50	20		75
TOTAL		70	25	200

- Fill in the missing data to the table above.
- Create a two-way relative frequency table that summarizes the data from the table.

	For	Against	No Opinion	TOTAL
Ages 21-40				
Ages 41-60				
Over 60				
TOTAL				

Use the two-way frequency table and the relative frequency table to answer the following questions:

- Out of the people that have no opinion, what percentage is over 60 years old?
- What percentage of people want to increase minimum wage?
- How many people over 60 are against increasing the minimum wage?
- For ages 21-60 how many were for increasing the minimum wage?
- What percent of people over 60 are against or have no opinion?

3. Ursula interviewed 75 people to see if they liked reading comic books. Of the people surveyed, 15 were males. In all, 32 females liked comic books, and 9 males liked comic books.

a. Construct a frequency table to organize her data.

	Likes comic books	Do not like comic books	Total
Male			
Female			
Total			

b. What is the conditional frequency that a person does not like comic books given that the person is a male?

4.

Age in years	Do they recycle?		Total
	Yes	No	
21–35	56	10	66
36–50	85	21	106
51–65	45	40	85
Total	186	71	257

a. What is the approximate joint frequency that a person was 21–35 and did not recycle?

b. What is the approximate frequency that a person surveyed was 51–65 years old given that he or she recycles?

c. Based on this survey, is it more likely that a 21–35 year old recycles or a 51–65 year old recycles? Use conditional frequencies to justify your answer.

5. Complete the following frequency table. Is it more likely that people who have a job have a savings account?

Have a savings account	Have a job		Total
	Yes	No	
Yes		66	
No	16	84	
Total			300

6. Is each of the following an example of qualitative (categorical) data?

- A years of education Yes No
- B type of pet Yes No
- C color of car Yes No
- D price of gas Yes No