

5.1 Frequency Tables

Use the survey results to make a two table. Include marginal frequency.

1. Bob asked students what grade they got on a math test and did they study for the math test?

Students with an A: 17 studied and 4 did not
 Students with a B: 14 studied and 8 did not
 Students with a C: 9 studied and 13 did not
 Students with a D: 2 studied and 6 did not
 Students with a F: 1 studied and 3 did not

							Total
Total							

2. Sarah inventoried the cars on a dealership's lot.
 Hondas: 14 new and 12 used
 Fords: 12 new and 4 used
 Chryslers: 8 new and 4 used
 BMW: 12 new and 1 used

Fill in the missing cells of the two way frequency tables.

3.

		Favorite Cafeteria Food			
		Pizza	Taco	Burger	Total
People	Teachers	12		21	65
	Students		66		220
	Total	132			

4.

		Color of hair			Total
		Brown	Blonde	Red	
Hand Preference	Left	30	16		50
	Right		118	2	230
	Either	10		2	
	Total			8	300

Convert the two way frequency tables from above into relative frequency tables.

5.

		Favorite Cafeteria Food			
		Pizza	Taco	Burger	Total
People	Teachers				
	Students				
	Total				

6.

		Color of hair			Total
		Brown	Blonde	Red	
Hand Preference	Left				
	Right				
	Either				
	Total				

- a. How many people were surveyed?
 b. What percent prefer Tacos?
 c. What cafeteria food do students prefer?

- a. What percent are left handed?
 b. What hand do Blondes prefer?

Use the two way frequency table to answer the following.

7.

GENDER

		Male	Female	Total
MUSIC TYPE	Punk	24	10	34
	Techno	4	1	5
	Classic	18	12	30
	Metal	9	8	17
	Total	55	31	86

- What type of music do females like most?
- What is the most popular type of music among men and women?
- What is the least favorite music for men?
- How many people were surveyed?
- For which gender was the response greater?
- What percent of the participants were female?

Finish converting the two way frequency table above into a conditional frequency table described below.

~~8. Given a person's gender find the conditional relative frequency of the person's music type.~~

		Gender		
		Male	Female	Total
Music Type	Punk	$\frac{24}{55} = .436$		
	Techno			
	Classic			$\frac{30}{86} = .348$
	Metal			
	Total	$\frac{55}{55} = 1$		

- What percent of Male's prefer Metal?
- What percent of Female's prefer Punk?

~~9. Given a person's music type find the conditional relative frequency of the person's gender.~~

		Gender		
		Male	Female	Total
Music Type	Punk			
	Techno		$\frac{1}{5} = 0.2$	
	Classic			
	Metal			
	Total			

- Given a person prefers Punk music, what percent are Male?
- If you randomly selected a person that prefers Classic music, what is the probability the person is female?

~~10. Is there an association between gender and music preference? Construct a viable argument to support.~~

SMP #2

Use the two way frequency table to answer the following.

11. A school newspaper surveyed the student body for an article about club membership. The table below shows the students' club membership by grade level.

		# of clubs involved in			
		0 clubs	1 club	2 clubs	3 or more
Grade Level	9 th	52	16	8	2
	10 th	34	26	12	4
	11 th	28	21	14	9
	12 th	22	28	16	16

- What percent of freshmen are in 1 or more clubs?
- What percent of the school body is involved in 2 clubs?
- Given a student is involved in 3 or more clubs, what percent are in 12th grade?

Solve the following.

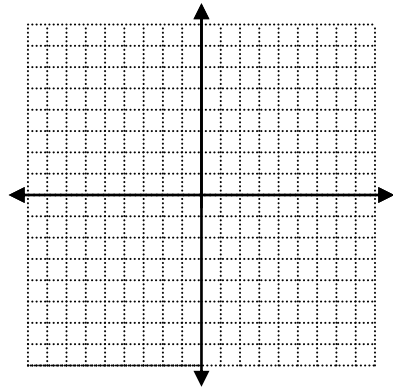
12. $4y - 2(y + 1) = 10$

13. $\frac{10}{3x} = 2$

14. $2x - 3y = 12$
 $x = y + 1$

Graph the following.

15. $y > \frac{x}{2} - 3$



16. $2x - 3y = 12$
 $x = 3$

