2-Way Frequency Tables

EQ: How do I describe the probability of categorical data?

What am I learning today?

How to create and analyze 2-category data tables

How will I show that I learned it?

Create a relative frequency table and discuss the popularity of different options

<u>Vocabulary - Review</u>

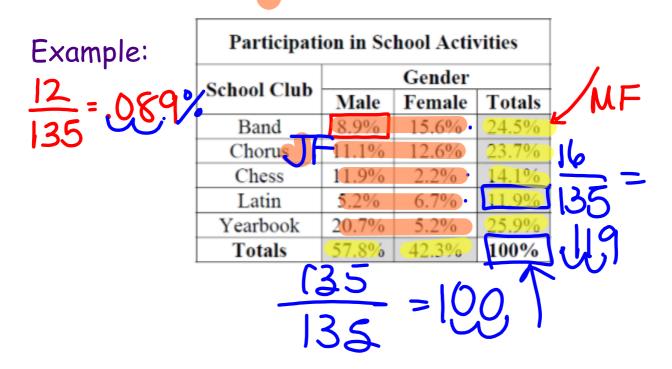
Quantitative Data – Data that can be measured and is reported in a numerical form.

 Categorical/Qualitative Data – Data that can be observed but not measured and is sorted by categories.

2-way frequency tables are used to represent categorical data that each have 2 details. We assume that there is no overlap in these

tables.					
Tubles.	Participation in School Activities				
	Sahaal Club		Gender		
Example:	School Club	Male	Female	Totals	
•	Band	12.	• 21	•33 •	
2 categor	Chorus	15.	.17	. 32 •	
~~~~~	Chess	16.	3 •	19.	
	Latin	7	9	16.	
categor	Yearbook	28	7	35	
	Totals	78	57	135	Dierall
	Tr	1-0 L	espon	Loc	Total
	10		John	4U O	10100
			•		

Relative frequency table shows the popularity of each category using percents or decimals.



## 3 types of numbers in a frequency table.

Participatio	on in Sc	chool Act	ivities
School Club		Gender	
School Club	Male	Female	Totals
Band	12	21	33
Chorus	15	17	32
Chess	16	3	19
Latin	7	9	16
Yearbook	28	7	35
Totals	78	57	135

Example: What is the joint frequency of a student who is male and in band?

Example: What is the marginal frequency of a student who is in yearbook?

$$\frac{1-\cot}{10 \cot} = \frac{35}{135} = 25.9\%$$

Conditional Frequency =

2-category number 1-category number

Example: What is the conditional frequency

$$\frac{2-cat}{1-cat} = \frac{7}{78}$$

.08.	17	
•	8.9	7%

Grade	Hours spent on homework				
Grade	0-2	2-4	More than 4		
9	38	12	2		
10	21	25	9		
11	14	18	20		

What percentage of students were 9th graders who worked more than 4 hours on homework?

Type of frequency?

What percentage of students were 11th graders? Type of frequency?

What percentage of students who worked 0-2 hours on homework were 10th graders?

Type of frequency?

Candon	Preferred sport				
Gender	Baseball	Soccer	Basketball		
Male	49	52	16		
Female	23	64	33		

What percentage of the people surveyed were female?

Type of frequency?

What percentage of males preferred soccer?

Type of frequency?

What percentage of the people surveyed were females who preferred basketball?

Type of frequency?