Name _____Per # _____ PRACTICE/PREP TASK
Math 8 ACC Date _____

Relative & Conditional Frequencies Displayed in Two-Way Tables

1) Fifty students in the 8th grade class were asked what kind of ice-cream they like (vanilla or chocolate) and what kind of toppings they like (sprinkles, m & m's, or nothing). Identify any trends in the data.

Topping	Sprinkles	M & M's	Nothing	Total
Vanilla	9	8	13	30
Chocolate	7	9	4	20
Total	16	17	17	50

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2) To create a **conditional relative-frequency** two way table for the **rows**, divide each number in each row by the total in that row. **(Round to the nearest hundredth)**

Topping	Sprinkles	M & M's	Nothing	Total
Vanilla				
Chocolate				

3) To create a **conditional relative-frequency** two way table for the **columns**, divide each number in each column by the total in that column. **(Round to the nearest thousandth)**

Topping	Sprinkles	M & M's	Nothing
Vanilla			
Chocolate			
Total			

4) A) Below is a table of people in the park and the activities that they do. Complete the frequency table below, based on the total participants.

Activity	Jog	Fly Kites	Picnic	Total
Male	9	4	10	
Female	11	1		
Total			25	50

B) Create a ***relative-frequency two-way table*** for **all 50 people**, divide each number in each cell by 50.

Activity	Jog	Fly Kites	Picnic	Total
Male				
Female				
Total				

5) A) You go to a dance and help clean up afterwards. To help, you collect the soda cans, Coca-Cola and Sprite, and organize them. Some cans were on the table and some were in the garbage. Seventy-two total cans were found. 42 total cans were found in the garbage and fifty total cans were Coca-Cola. 14 Sprite cans were found on the table. Complete the two-way frequency chart.

	Coca-Cola	Sprite	Total
Table			
Garbage			
Total			

B) Complete a relative frequency table based on the TOTAL number of cans.
(Round to the nearest thousandth)

	Coca-Cola	Sprite	Total
Table			
Garbage			

Total			

6) Consider the summary of data from 100 randomly selected students at Sunnyside School:

	Intramural Basketball	**Chess Club**	**Jazz Band**	**Not involved**	**Total**
Females	20	10	10	20	60
Males	20	2	8	10	40
Total	40	12	18	30	100

A) Construct a ***row conditional relative frequency table*** for this data. Decimal values are given to the nearest thousandth.

	Intramural Basketball	**Chess Club**	**Jazz Band**	**Not involved**	**Total**
Females					
Males					

B) For what after-school activities do you think the row conditional relative frequencies for females and males are very different? What might explain why males or females select different activities?

C) If John, a male student at Sunnyside School, completed the after-school survey, what would you predict was his response? Explain your answer.

D) If Beth, a female student at Sunnyside School, completed the after-school survey, what would you predict was her response? Explain your answer.

E) Notice that 20 female students participate in intramural basketball and that 20 male students participate in intramural basketball. Is it accurate to say that females and males are equally involved in intramural basketball? Explain your answer.

F) Do you think there is an association between gender and choice of after-school program? Explain.