P.S. #9.3 – Two-Way Tables Day 2

Name _____ Class _____

A survey is conducted in the freshman class. The surveys shows that

- 52 students have both a curfew and chore responsibilities
- 62 students have at least chore responsibilities
- 60 students have at least a curfew
- 4 students have neighter a curfew nor chore responsibilities.

1.) Complete the two-way table.

	Curfew	No Curfew	Totals
Chores			
No Chores			
Totals			

2.) How many students participated in the survey? _____

3.) Using the information from question #1, create a relative frequency table. Round each answer to the nearest hundredth.

	Curfew	No Curfew	Totals
Chores			
No Chores			
Totals			

4.) Using the information from question #1, create a relative frequency table by row. Round each answer to the nearest hundredth.

	Curfew	No Curfew	Totals
Chores			
No Chores			
Totals			

5.) Using the information from question #1, create a relative frequency table by column. Round each answer to the nearest hundredth.

	Curfew	No Curfew	Totals
Chores			
No Chores			
Totals			

6.) What percentage of all students surveyed have both a curfew and chore responsibilities?

_____

7.) What percentage of students who have chores also have a curfew? _____

8.) What percentage of students who have a curfew do not have chores? _____

Students were surveyed as to whether they have taken horseback riding lesons or tennis lessons. The results are displayed in the two-way table below.

9.) Complete the table.

	Riding Lessons	No Riding Lessons	Totals
Tennis Lessons	13	32	
No Tennis Lessons	5	40	
Totals			

10.) How many students participated in the survey? _____

11.) What is the relative frequency of a student who took neither riding lessons nor tennis lessons to all students who taken no riding lessons? _____

12.) Of all the students not taking riding lessons, which is higher: the percentage of students that took tennis lessons, or the percentage of students who did not take tennis lessons? Explain your answer. _____

Freshman girls and boys were surveyed to choose their favorite subject from the list of Math, English or Science. The results are shown in the two-way relative frequency table below (rounding to *nearest hundredth*). Answer the questions below, regarding this table.

	Math	English	Science	Totals
Girls	$\frac{50}{150}=0.33$	$\frac{40}{150}=0.27$	$\frac{60}{150}=0.40$	$\frac{150}{150}=1.00$
Boys	$\frac{65}{165}=0.39$	$\frac{30}{165}=0.18$	$\frac{70}{165}=0.42$	$\frac{165}{165}=1.00$
Totals	$\frac{115}{315}=0.37$	$\frac{70}{315}=0.22$	$\frac{130}{315}=0.41$	$\frac{315}{315}=1.00$

MathBits.com

13.) How many girls participated in the survey? _____

14.) What percentage of the boys chose Science? _____

15.) This table shows relative frequencies based on:
   a. The whole table
   b. The rows
   c. The columns

16.) What percentage of the girls chose math? _____

17.) What percentage of the students chose English? _____

18.) The combined volume of all the tanks at an aquarium is 1.25×10^6 gallons. The aquarium plans to install a new dolphin tank with a volume of 250,000 gallons. What will be the total volume of all of the tanks at the aquarium after the new dolphin is installed?

    a. 1.5×10^5

    b. 3.75×10^5

    c. 1.5×10^6

    d. 3.75×10^6

19.) The table shown below was posted on the wall at Andy's Hardware to show the price of varying lengths of chain-link fencing. The price of the same fencing at Bargain Hardware can be determined by the equation $y = 2.50x$, where y is the price, in dollars, for x feet of fencing.

a.) Determine the unit price for fencing, in dollars per foot, for each store.
Show your work.

Price of Fencing

Length (feet)	Price
75	$150
125	$250
175	$350
225	$450

Answer:

Bargain Hardware $ _____ per foot   Andy's Hardware $ _____ per foot

b.) On the grid below, graph for each store the relationship between the length of the fencing and the price to verify your answers to part a. Be sure to label each line.

Price of Fencing

Price (dollars) vs. Length (feet)