

## PART I

1. *My population is Felician College students*
2. *My questions are:*
  - a. *How many books did you read last year? quantitative discrete*
  - b. *How many hours of TV do you usually watch each week? quantitative continuous*
  - c. *What is your favorite kind of TV show: Reality, comedy, music, or other? qualitative*

## PART II

3. *I asked these questions of 18 students in my statistics class. The following table gives the responses from those 18 students.*

<i>Student</i>	<i>Answer a</i>	<i>Answer b</i>	<i>Answer c</i>
<i>A</i>	<i>0</i>	<i>8.5</i>	<i>reality</i>
<i>B</i>	<i>6</i>	<i>6.5</i>	<i>reality</i>
<i>C</i>	<i>1</i>	<i>10</i>	<i>comedy</i>
<i>D</i>	<i>0</i>	<i>11</i>	<i>comedy</i>
<i>E</i>	<i>10</i>	<i>4.5</i>	<i>other</i>
<i>F</i>	<i>7</i>	<i>7.5</i>	<i>music</i>
<i>G</i>	<i>2</i>	<i>12</i>	<i>reality</i>
<i>H</i>	<i>1</i>	<i>11.5</i>	<i>music</i>
<i>I</i>	<i>0</i>	<i>10.5</i>	<i>music</i>
<i>J</i>	<i>5</i>	<i>8.5</i>	<i>other</i>
<i>K</i>	<i>1</i>	<i>9.5</i>	<i>music</i>
<i>L</i>	<i>0</i>	<i>12</i>	<i>music</i>
<i>M</i>	<i>4</i>	<i>6.5</i>	<i>reality</i>
<i>N</i>	<i>2</i>	<i>10.5</i>	<i>comedy</i>
<i>O</i>	<i>8</i>	<i>4.5</i>	<i>other</i>
<i>P</i>	<i>7</i>	<i>3.5</i>	<i>other</i>
<i>Q</i>	<i>0</i>	<i>9.5</i>	<i>reality</i>
<i>R</i>	<i>1</i>	<i>8</i>	<i>comedy</i>

*This is a convenience sample, and so my study is not scientific because....*

4. *This table gives the following data for both variables:*
  - a. *Mean, median, mode, and standard deviation.*
  - b. *Five-number summary.*
  - c. *There are no outliers in either data set. I know this because...*

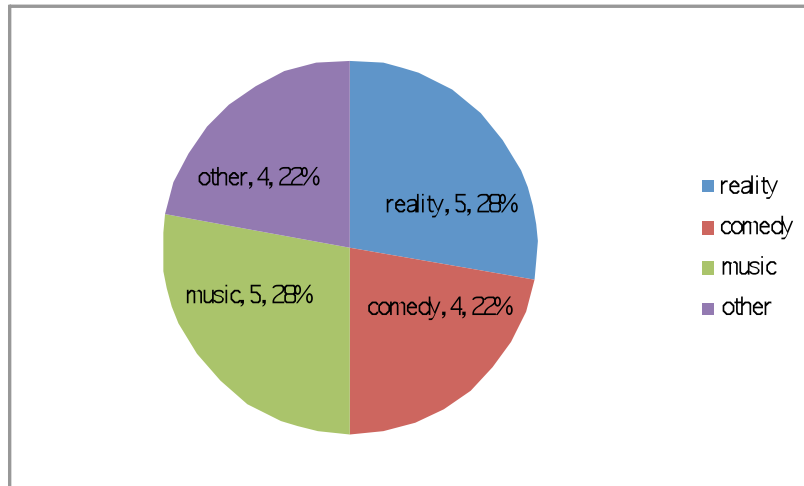
	Books	TV Hours
Mean	3.1	8.6
Median	1.5	9
Mode	0	8.5
St.Dev.	3.28	2.64
5-number summary	0	3.5
	0	6.5
	1.5	9
	6	10.5
	10	12

5. Favorite kind of show:

a. The table below shows the frequency distribution.

Type of Show	# of students
Reality	5
Comedy	4
Music	5

b. I selected a pie chart because...



c. The table below shows the data values and means for # of books read and # of TV hours for students who prefer reality, comedy, music and other TV shows.

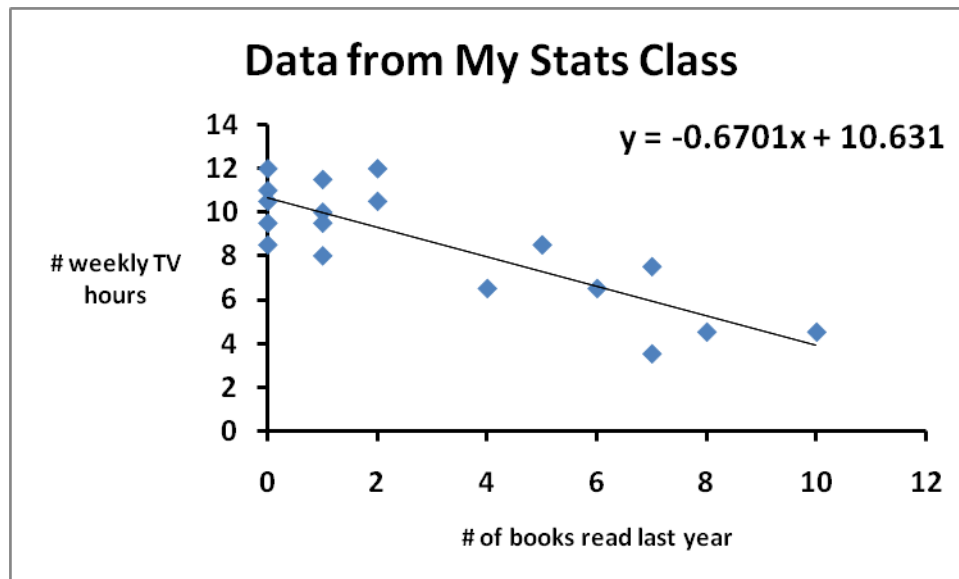
TV preference	# books mean	TV hours mean
Reality	1	9.9
Comedy	2.4	8.6
Music	1.8	10.2
Other	7.5	5.3

*It appears that students who prefer Other TV shows read the most books and students who prefer reality shows read the fewest books. Students who prefer music watch the most TV and students who prefer Other watch the least TV.*

## PART III

6. For two-variable statistics:

- a. I designated “# of books read” as the independent variable and “# of TV hours” as the dependent variable because ...
- b. Here is the scatter plot with the trendline.



- c. The correlation coefficient is  $-0.83$ , which indicates a strong negative correlation. I used the **correl** function in Excel.
- d. N/A
- e. There is a correlation.
  - i. The regression equation is:  $y = -0.67x + 10.63$ .
  - ii. For # of books = 14, the regression equation predicts 1.25 hours of TV watching.