***Handout #13 — Different Kinds of Data Representations - SOLUTIONS***

Once data about a variable of interest have been obtained, it's important to clearly describe the dataset. We often look for ways of expressing the data graphically. The graph of choice usually depehds on the nature of the data itself or the type of question to be answered.

**Questions**

1. In order to determine which kind of data display (e.g., histogram vs. bar graph) is appropriate for a given variable, what should we consider?

a. whether the relevant variable is quantitative or categorical (correct choice)

b. whether the study is observational or experimental

c. the range of the data

2. A class survey asked students to indicate if they are MAC or PC users. What type of graph(s) (pie chart, bar chart, histogram) is most appropriate to display their results.

You can use either a pie chart or a bar chart since this is categorical data.

3. Scores for a quiz were calculated as the number of correct responses. Below is a graphical display of the quiz scores. How many students have score above 15? (Note: all scores are integers and bars begin at left endpoints.)

Those who scored above 15 are represented in the two highest bars, so 3 + 4 = 7

Answer: \_\_\_\_\_7\_\_\_\_\_\_

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For questions #4 - 6:

Here is a histogram for a set of test scores from a 10-item makeup quiz given to a group of students.

1. What do the number on the vertical axis represent?

The vertical axis represents the count. It tells us how many students are in a particular group.

(The horizontal axis represents the different test scores students received)

1. How many students received scores higher than 4?

2

6. How many people took the quiz and have scores represented in the graph?

10

7. Select the best description (normal, skewed to the left, skewed to the right, uniform, bimodal) for each distribution below.

|  |  |
| --- | --- |
|  |  |

 Normal Skewed to the right

 (If you wrote Symmetric, I counted it right)