

## Section 5C: Homework Solutions

11. Your pie chart must be wrong, because you have the 45% frequency wedge near the upper left and the answer key shows it near the lower right.

**Solution:**

This does not make sense. You can place the Pie chart wedge wherever you want to place it.

□

15. Make a frequency table for the given data

Grade	Freq.	Rel. freq.	Cum. freq.
A	4	.17	.17
B	7	.29	.46
C	8	.33	.79
D	3	.13	.92
F	2	.08	1.00

□

Determine whether the following variables are qualitative or quantitative.

17. The blood types of individuals

**Solution:**

This is a qualitative variable since it is not numerical.

□

20. The high temperature in Anchorage, Alaska, on each day of the year.

**Solution:**

Since temperature is measured numerically, this is a quantitative variable.

□

23. The choice of TV shows to watch on a given night.

**Solution:**

This is a qualitative variable since it is not measured numerically.

□

26. Use 10-point bins to make a frequency table for the given data.

**Solution:**

Bin	Freq.	Rel. freq.	Cum. freq.
90-99	4	.16	.16
80-89	9	.36	.52
70-79	5	.20	.72
60-69	4	.16	.88
50-59	2	.08	.96
< 50	1	.04	1.00

27. Construct a bar graph for the given data.

**Solution:**

For the bar graph, the vertical axis should represent the population and there should be five bars representing each city in decreasing order.

□

30. Construct a pie chart for the given data.

**Solution:**

The pie chart should have three wedges and a legend identifying the wedges. Make sure there is a title on the pie chart.

□

For the following:

- explain whether the data categories are qualitative or quantitative.
- If the data are qualitative, draw a bar graph or pie chart for it.
- Write a paragraph summary of any interesting information revealed by the graphic.

37. NCAA basketball championship information is given

**Solution:**

- The teams are qualitative categories.
- You should be able to construct a bar graph.
- UCLA won substantially more than any other college. Also the other colleges are at nearly the same level.

□

38. Retail company sales are given.

**Solution:**

- The companies are qualitative categories.

- b) You should be able to construct a bar graph.
- c) Walmart's sales are substantially more than that of the other companies all of which are similar in sales.

□

**44.** Data pertaining to the total number of college applications first year students submitted in addition to that of the college they attend.

**Solution:**

- a) The number of colleges are quantitative data.
- b) You should be able to construct a bar graph for this data.
- c) Nearly one third of students submitted only one application.

□