

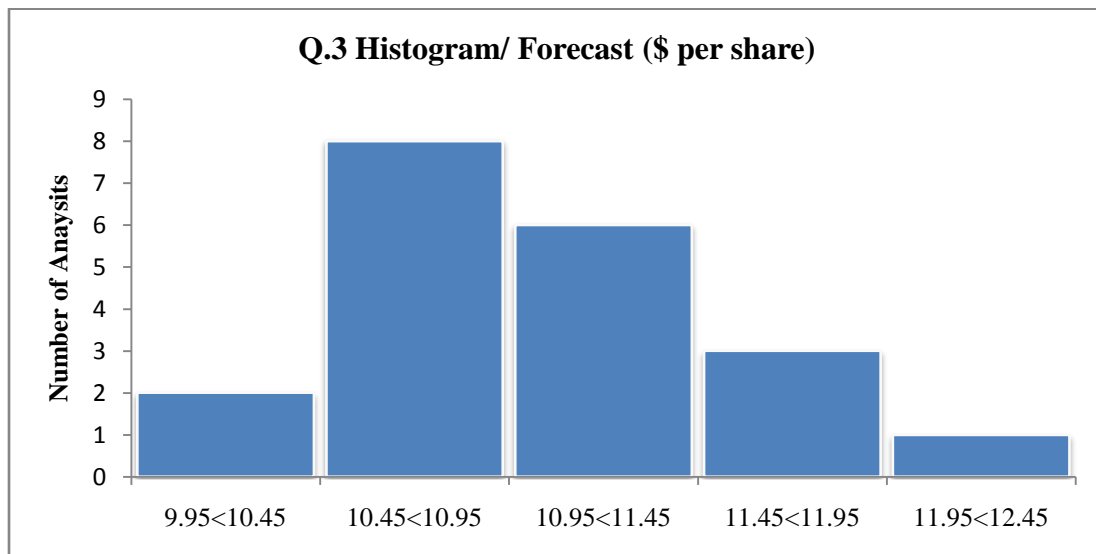
Econ 311: Problem Set #1

Suggested Solutions

1.
 - a. The population consists of all students at the college.
 - b. The Sample consists of the 174 students that were randomly selected.
 - c. The statistics is the 6.1 hours that was calculated from the sample.
 - d. 6.1 hours is a sample statistics.

2.
 - a. Descriptive-to describe information about a one-week sample
 - b. Inferential statistics-to estimate the true percentage of all employees who arrive to work late.
 - c. Inferential statistics – to predict the relationship between years of experience and pay scale.

3.
 - a. Draw a histogram of 20 forecasted earnings per share.



Answer to b., c. and d. are:

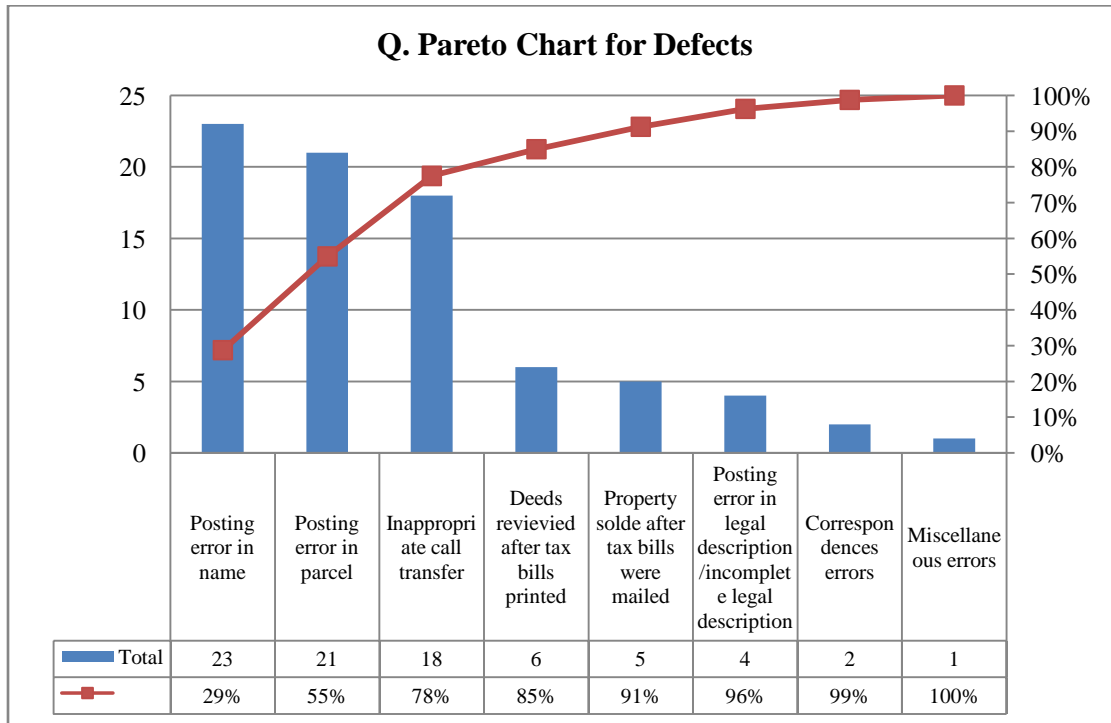
(b) (c) (d)

<i>Frequency</i>	<i>Relative Freq.</i>	<i>Cumulative Freq.</i>	<i>Cumulative %</i>
2	0.1	2	10.00%
8	0.4	10	50.00%
6	0.3	16	80.00%
3	0.15	19	95.00%
1	0.05	20	100.00%

d. Cumulative relative frequencies are in the last column of the table above. These numbers indicate the percent of analysts who forecast that level of earnings per share and all previous classes, up to and including the current class. The third bin of 80% indicates that 80% of the analysts have forecasted up to and including that level of earnings per share.

4. County Appraiser’s Office-Data Entry Process

a. Pareto diagram



b. Recommendations should include a discussion of the data entry process. The data entry was being made by individuals with no knowledge of the data. Training of the data entry personnel should be a major recommendation. Increasing the size of the monitors used by the data entry staff would also reduce the number of errors.

5. Plot the data for advertising expenditures and total sales.

