Ch 2.3 Pictures of Data

Graphs of ***Quantitative Data***:

- Histogram
- Relative frequency histogram
- Frequency Polygon
- Ogive
- Dot Plot
- Stem and Leaf Plot

Graphs of ***Qualitative Data:***

- Pareto Chart
- Pie Chart
- Bar graph
- scatter plot

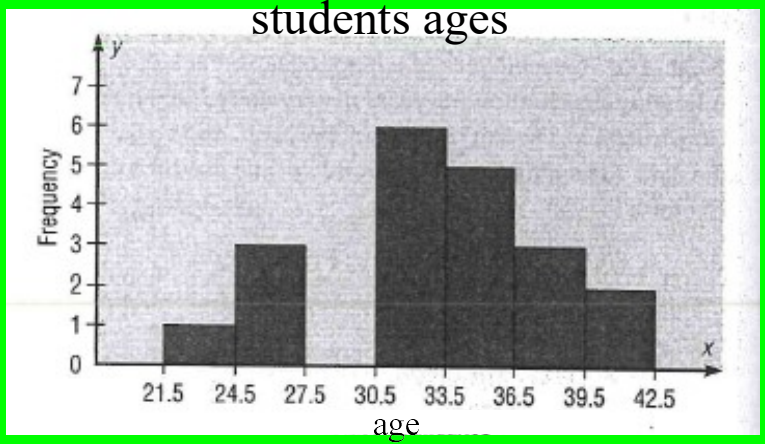
All graphs need to have the following:

1. Title

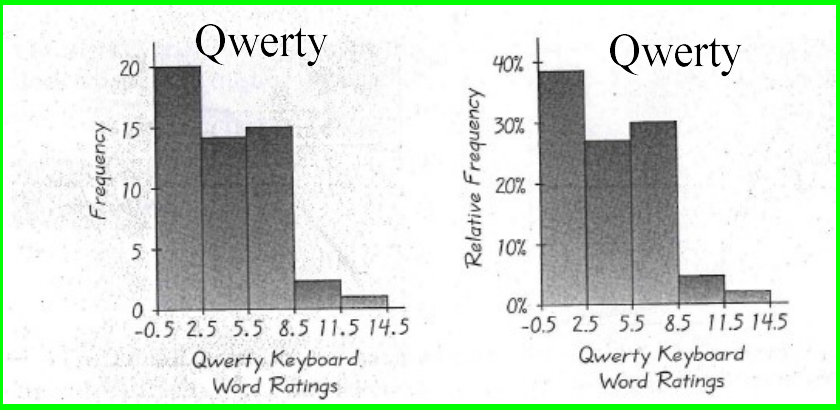
2. Labels on x and y axis

3. Reasonable scale
   - y axis needs to be consistent
   - if a jump in the y-axis, then a break is required at the bottom. (can't be in the middle)

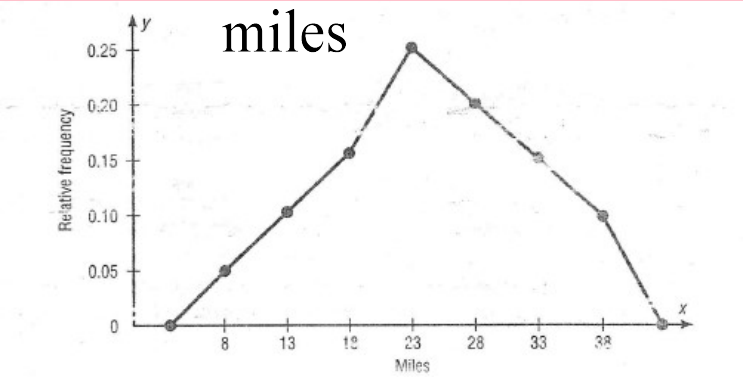
Histogram: a bar graph w/ a horizontal scale represented by the classes (use the class boundaries) and vertical columns (no gaps) representing the frequency



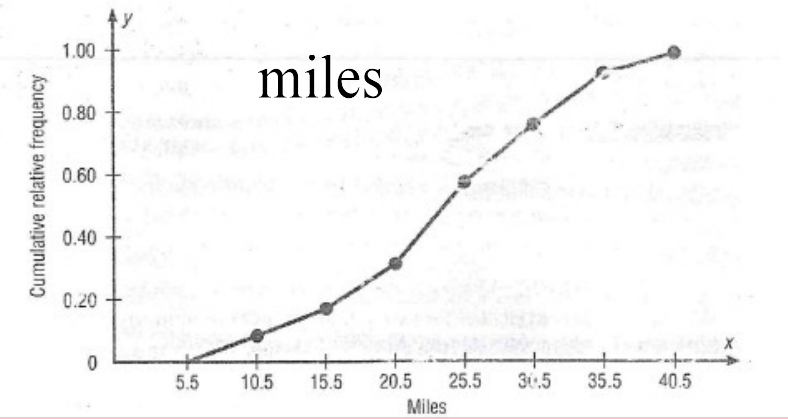
Relative frequency histogram: same as a histogram, but the vertical axis scale represents the percents.



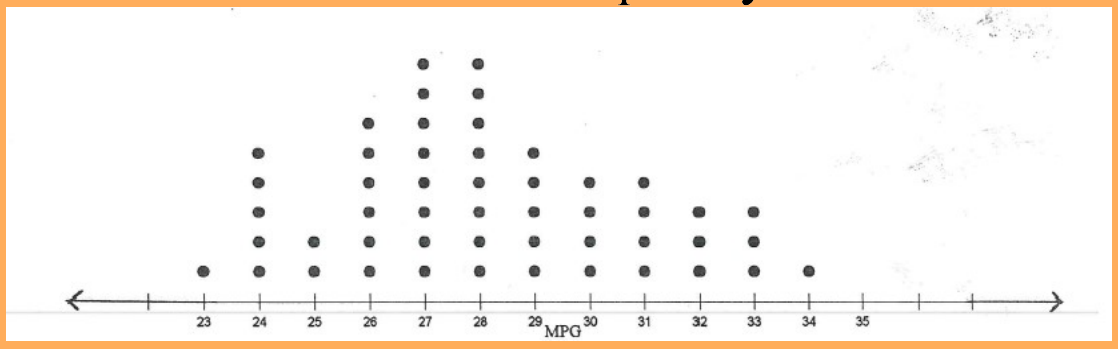
Frequency polygon - is a line graph that uses points to represent the frequency. Midpoints are used on the horizontal axis and the frequency on the vertical axis.



Ogive - is a line graph that shows the cumulative frequency. Class boundaries are used on the horizontal axis and cumulative frequency on the vertical axis.



Dot plot - use a number line w/ dots above each value to indicate the frequency.

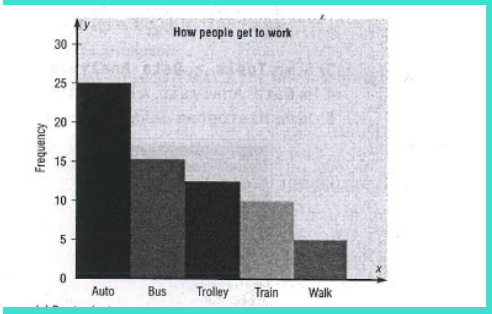


Stem and leaf plot - separates data into 2 parts: stems are left digit(s) and the leafs are the right digits

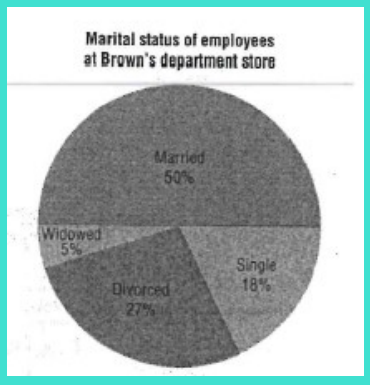
Stem	Leaves
6	7
7	25
8	5899
9	09
10	0

6|7 = 67

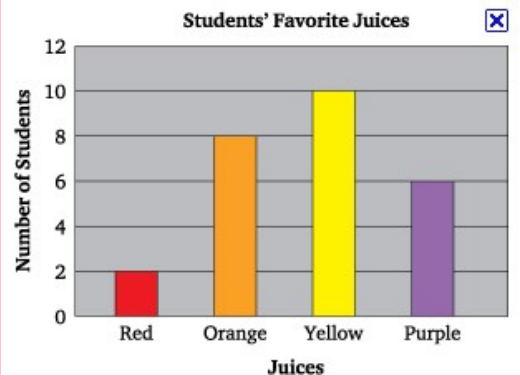
Pareto Chart - Is a bar graph with no gaps and the categories are in order from tallest to smallest. (looks like a histogram, but categories on the horizontal axis and frequency on the vertical axis.



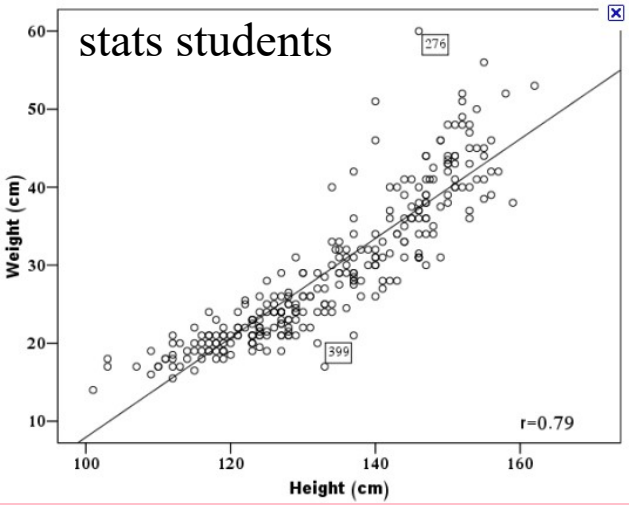
Pie Chart - Categories are represented as a slice of the pie. Each slice is determined by the # in each category/total number of items x 360.



Bar graph - use vertical or horizontal bars with gaps between them to represent the frequency of a group of categories.



Scatter plot - comparing two sets of data to see if there is a linear relationship. The data is plotted as ordered pairs.



Match the graphs: **Pareto Chart** **Ogive** **Frequency Polygon**

frequency histogram

relative frequency histogram

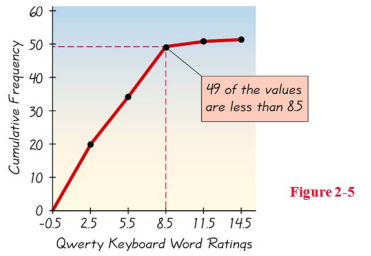
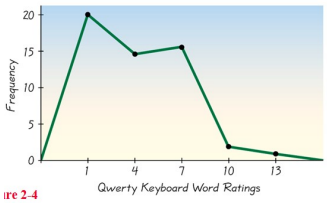


Figure 2-5



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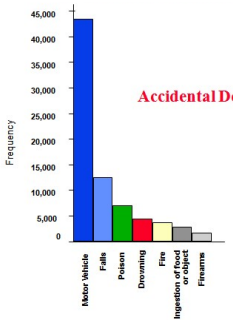

Accidental Deaths by Type

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