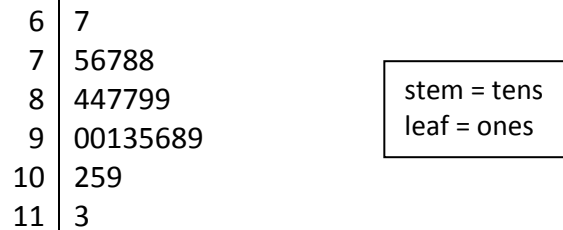


Stem and Leaf Plots

Here are the test scores for a final exam in a class, out of 120 points:
67, 75, 76, 77, 78, 78, 84, 84, 87, 87, 89, 89, 90, 90, 91, 93, 95, 96,
98, 99, 102, 105, 109, 113

Below is a stem-and-leaf plot. You can use it instead of a dot plot to find shape.



Do you see how it works? On the left is the “tens” and on the right is the “ones.”

The center is around 89 (mean = 88.29, median = 89). The data is not very spread out (range = 46, standard deviation = 11.23). The shape is roughly symmetric.

1. Make stem-and-leaf plots for these two data sets. Then write a few sentences describing their center, spread, and shape.

Data Set #1: This is the mileage of 18 different mid-size sedans.

24 27 12 38 21 26 23 33 19 19 26 28 16 21
28 20 21 33

Data Set #2: This is the number of times that restaurant patrons had been to a nearby restaurant before:

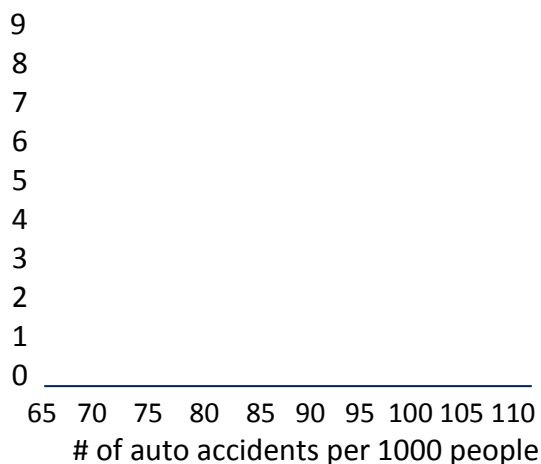
17 37 4 20 0 4 14 56 5 19 0 13 42
0 22 3 13 14

Histograms

Here is the number of auto accidents per year for every 1000 people in 38 occupations:
 67, 75, 76, 76, 76, 77, 78, 78, 79, 84, 84, 84, 85, 86, 87, 87, 88, 88, 89, 89, 89,
 90, 90, 90, 90, 91, 93, 94, 94, 95, 96, 98, 99, 102, 105, 106, 109, 152

For LARGE data sets a histogram is better. First we **group** the data into classes (I chose class widths of 5), and then we make bars.

Class	Frequency
65-<70	1
70-<75	0
75-<80	7
80-<85	3
85-<90	9
90-<95	8
95-<100	4
100-<105	1
105-<110	3
110+	1



2. Make histograms for these two data sets. Then write a paragraph describing their center, spread, and shape.

Data Set #1: This is the percentage of people eligible for a low-income Medicare drug plan in various states.

24 27 12 38 21 26 23 33 19 19 26 28 16 21
 28 20 21 41 22 16 29 26 22 16 27 22 19 22
 22 22 30 20 21 34 26 20 25 19 17 21 27 19
 27 34 20 30 20 21 14 18

Data Set #2: This is the number of times during the semester that 39 students in a class visited a website that makes notes, homeworks, and grades available online:

20 37 4 20 0 4 14 36 5 19 0 13 42
 0 22 3 13 14 36 4 0 18 8 0 26 12
 4 0 5 23 19 7 12 8 13 16 21 7 8