STAT 291 - Statistics for the Mathematical Sciences I

Making a Stem-and-leaf Plot

- Choose a spot to split the data into two pieces. The first part of each number is the stem, the remaining piece is the leaf.

- Make a column of all the possible stems from the lowest that occurs in your data to the highest. Include all values, even if some do not occur in your data.

- Draw a vertical line next to the column of stems.

- Go through the dataset and attach the leaf for each observation to the right of the vertical line on the row for its stem. If the leaves are more than one digit, leave a space between leaves on any branch.

- After all the leaves are attached, it may be helpful to rewrite the plot with the leaves on each branch ordered from smallest to largest.

- If the plot looks too compact you may adjust the number of branches per stem from 1 to 2, 5, or 10.

- If the plot looks too spread out, split the data one digit further to the left, and redraw the plot with the new stems.

- If needed, you may use a 0 stem for numbers that would only have leaves, or use add a ".0" to whole numbers to be used as leaves.

Making a Dotplot

- Draw a numberline that covers the range of the data.

- Divide the numberline up evenly.

- Place a dot above the numberline for each observation.

- If a particular value appears multiple times, stack the dots on top of each other. Keep the spacing even, so that two "stacks" that have three dots are the same height.

- NOTE: This method works best with discrete data.