Topic 7f: Stem and Leaf Diagrams

Warning: The course outline specifies that we teach making stem and leaf diagrams. This is true for almost all basic statistics courses. Stem and leaf diagrams were an important tool that we "old" people, those who learned statistics before we had access to computers, used. The end result of a stem and leaf diagram is no better than a histogram of the data and we already know how to create a histogram.

Here is some data to use in making a stem and leaf diagram:

gnrnd4(579043502, 4800321)

328	349	321	328	321	341	339	361	365	334	331	339
365	338	324	321	340	343	346	324	334	365	323	321
342	356	325	329	325	322	325	360	332	364	332	326

We will make the stem and leaf diagram twice. The first time we make it from the original data. The second time we simply rewrite the stem and leaf but this time sorting the leaves.

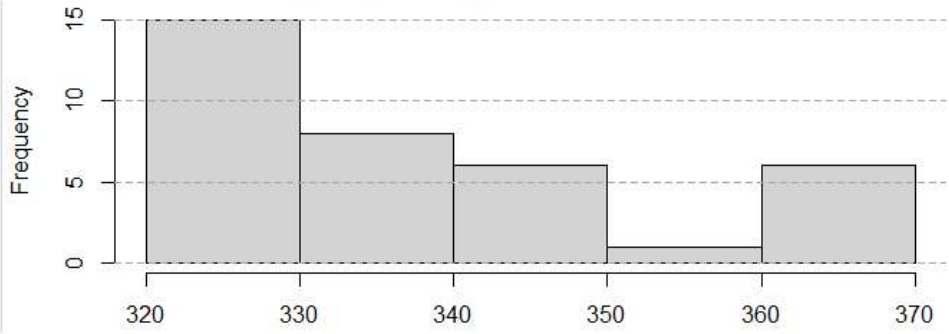
We observe that the values in the table run from the 320's through the 360's. So we make our "stems" 32, 33, 34, 35, and 36.

32 |
33 |
34 |
35 |
36 |

Now rewrite the diaagram but sort the leaves

32 |
33 |
34 |
35 |
36 |

Compare that to the result of getting a histogram of the same data.



And here is the result of using the stem_leaf() function from your desktop folder.

```
32 | 1 1 1 1 2 3 4 4 5 5 5 6 8 8 9
33 | 1 2 2 4 4 8 9 9
34 | 0 1 2 3 6 9
35 | 6
36 | 0 1 4 5 5 5
```