Basic R commands

To input data:

your_variable_name=c(list of values separated by commas)

Example

Steers=c(174, 142, 131, 145, 175, 150, 176, 151, 110, 162, 133, 163, 135, 178, 178, 154, 166, 146, 156, 167)

For preloaded datasets make sure MosaicData is checked in the packages list.
If you do not see MoasaiData in your packages list then you need to install this package.

1. Click on “Install” in the Packages window.

2. Another window pops up and you want to type in mosaic, MosaicData in the blank line.

3. Click on “Install.” This will install some of the data set we will use in this course. This installation may take a couple of minutes.
Once we have the MosaicData Checkmarked we can calculate a couple of things

For basic statistics:

mean(dataset_name$variable_name) for mean

median(dataset_name$variable_name) for median

sd(dataset_name$variable_name) for standard deviation

quantile(dataset_name$variable_name,type=2) for quartiles

**IF there is no dataset name just you will not need the dollar symbol.**

Example:

To find the mean, median, standard deviation, Q₁, and Q₃ for the variable **verbal** in the **SAT** data set.

```r
> mean(SAT$verbal)
[1] 457.14
> median(SAT$verbal)
[1] 448
> sd(SAT$verbal)
[1] 35.17595
> fivenum(SAT$verbal)
[1] 401 427 448 491 516
```
Mean = 457.14, Median = $Q_2 = 448$, $Q_1 = 427$, $Q_3 = 491$

For graphs:

hist(dataset_name$variable_name) for histogram

boxplot(data_name$variable_name) for boxplot

stem(data_name$variable_name) for stemplot

Example: Creating histogram, boxplot and stemplot for the variable \textit{verbal} from the data set \textit{SAT}.

\begin{verbatim}
> hist(SAT$verbal)

Histogram of SAT$verbal

\end{verbatim}

\begin{verbatim}
> boxplot(SAT$verbal)

\end{verbatim}
> stem(SAT$verbal)

The decimal point is 1 digit(s) to the right of the |

| 40 | 167157999 |
| 42 | 00578990014 |
| 44 | 345888 |
| 46 | 028367 |
| 48 | 24568114567 |
| 50 | 1356356 |