Introduction to R
Session 4: Adding features to plots

These exercises use the `mtcars` dataset, that is supplied with R. Use `?mtcars` to access a description of it.

1. Create a figure with boxplots to illustrate the distribution of `mpg` (miles per gallon) for the different `cyl` (number of cylinder) types, where each boxplot in the figure has a different color. Add a legend to the plot.

2. Create a scatterplot to illustrate the relationship of `mpg` (miles per gallon) versus `wt` (car weight).

   a. Using `abline()`, add a straight line that you think summarizes this relationship. (Hint: experiment with a few straight lines, replotting the graph each time)

   b. Add scatterplot smoothers to the plot using the `lowess()` and `supsmu()` functions, where one of the lines is red and the other is blue. (Hint: use the commands in the slides from session 4 on scatterplot smoothers!)

   c. Use `legend()` to add an appropriate legend to the scatterplot.

3. Redo question 2 above but this time include the two scatterplot smoothers that have different line types and different colors, where one line is dotted and the other is dashed. Include an appropriate legend. (Hint: for plotting different line types, use the `lty` option with the `lines()` function, e.g., set `lty=2` in the function call).

4. Put your results from Q1/2/3 into one figure, using `layout()`.