The following questions use a dataset on the chemical composition of pottery found at several sites.  The 'site' variable tells where each sample was found, and the four remaining columns (Fe, Al, Ca, Na) each stand for a specific element.

This data set ca be loaded by using the following code:

chemTable <- read.csv("https://vincentarelbundock.github.io/Rdatasets/csv/carData/Pottery.csv",  
                      sep=",", header=TRUE)

This is the easiest way to load the code.  If you experience trouble obtaining the data from the site, it is available as a [downloadable CSV file](https://csus.instructure.com/courses/88864/files/14302725?wrap=1)[Download downloadable CSV file](https://csus.instructure.com/courses/88864/files/14302725/download?download_frd=1)from Canvas.  If you obtain the Canvas version, you will have to download it locally, move it to your working directory (probably where your R file is located and saved), and adjust the code to load it from your computer.

Remember to load the plyr and ggplot2 libraries when writing your code.

Q23-

Load chemTable, if you have not already done so.

* Extract the Fe and Al columns into variables feCol and alCol.  Print out the max of both of these variables.
* Add feCol and alCol together into a new vector, feAlCol.
* Obtain the average of feAlCol and print out the result.

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Q24-

Load chemTable, if you have not already done so.  Using ggplot2, make a graph.

* Assign x to the Ca column, and y to the Na column.
* Plot the data points (non-jittered) on the graph.
* Plot a regression line on the graph, using *linear regression* via the method described in class.

Q25-

Load chemTable, if you have not already done so.

* Using the ddply() function, split chemTable up by the Site variable as the independent variable.
* Using the summarize() function with ddply, specify four summaries to calculate: sdAl, sdFe, sdCa, sdNa.
* Calculate the standard deviation of the Al, Fe, Ca and Na columns in the appropriate summary.  Print out the result.

NOTE: Everything you do **MUST** be as part of the ddply() call.

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