1. I recently collected some data, which is available at `http://web02.gonzaga.edu/faculty/axon/321/heights.txt` on the heights (in inches) of 27 male students and their families.

a) Enter the heights of the children, mothers, and fathers into R using the `c` command. For example `> kids <- c(77, 73, 72, ... , 73)` (copy and paste the numbers in).

b) Explore this data using the commands `summary`, `hist`, and `boxplot`.

c) Create side-by-side boxplots comparing the three groups (`> boxplot(kids, moms, dads)`).

d) Test the hypothesis that sons and fathers have the same height against the alternative that sons are taller (`mean` and `sd` may be useful commands).

e) You probably just assumed that the populations were normally distributed. You can check on this assumption using a *normal scores plot*: `> qqnorm(kids)`. The closer the dots come to falling on a straight line, the more likely the population sampled is to be normally distributed.

f) Fit a linear regression model to the heights of mothers and fathers: `> model <- lm(moms~dads)` then `> plot(dads,moms)` and `> abline(model)` (this last command may not work in R Fiddle). The command `> summary(model)` will give you the details of the linear regression model.

g) Repeat for heights of children and mothers and for heights of children and fathers.

2. The data set UKDriverDeaths records the number of UK drivers killed in car accidents each month from 1969 to 1984. This data is structured as a time series, rather than a simple list.

a) Enter `> UKDriverDeaths` to see the data.

b) Enter `> plot(UKDriverDeaths)` to plot the data. What conclusions can you draw from this plot?

c) Starting in February of 1983 UK drivers were required by law to wear seat belts. Did this significantly reduce driver deaths?

Bonus. Explore the data set faithful (data on eruptions of the Old Faithful geyser in Yellowstone National Park). Can it tell you anything about how Old Faithful works?