Question 1

Use the `gapminder` data set in the `gapminder` library to recreate a version of Hans Rosling's famous data visualization shown in the *A Grammar of Graphics* slides (a single plot instead of a movie; in other words, for just a single year).

- You can see at a glance which years are available by running `count(gapminder, year)` in an R chunk.
- In place of fertility rate use GDP per capita.

Constructing this plot requires several distinct steps.

1. Determine the correct geometry for the plot and make an initial `ggplot` with the two variables on the x and y axis.
2. Distinguish the continents by either shape or color. Which ever one you do not use, *set* its value to something other than the default. *Hint: use the help_file for `geom_point()` to find options you can set to!*
3. Alter the x and y axis labels so that they're more descriptive than just the variable given names in `gapminder`.
4. Add an annotation that draws attention to a particular feature of the data (of your choosing).
5. Title your plot with a claim based on your data.
6. Apply a theme of your choosing.

Use RStudio to write the code and see your visualization. Once you are happy with it, handwrite your code in the space below.

Question 2

Reconstruct a few of the visualizations shown in the *A Grammar of Graphics* textbook chapter using `ggplot2` code. The datasets that you will need to access are `penguins` and `arbuthnot`; both are located in the `stat20data` package. Write the code you used below for each one, as well as the code that you used in any steps that you might need to take before making the visualizations.

- The scatter plot featuring penguin bill depths and bill lengths, broken down by species.

- The line plot featuring 17th century births in England.