

## Practice 1

This practice follows your learning of Chapter 1 which is a review chapter. It is worthwhile gaining some practice using R on some real data. The real data to be used here is the `swiss` data which can be accessed in R. The aim is to build some good linear models to analyze the `swiss` data where `Fertility` is used as the response. Your data analysis should consist of:

1. An initial data analysis that explores the numerical and graphical characteristics of the data.
2. Variable selection to choose the best model.
3. An exploration of transformations to improve the fit of the model.
4. Diagnostics to check the assumptions of your model.
5. Some predictions of future observations for interesting values of the predictors.
6. An interpretation of the meaning of the model with respect to the particular area of application.

There is always some freedom in deciding which methods to use, in what order to apply them, and how to interpret the results. So there may not be one clear right answer and good analysts may come up with different models.

It is always a good idea to record your data analysis results and turn them into a technical or research report.