Tutorial 9

9.1 Using the R codes in the lecture slides, perform the following tasks:
   (a) Fit the LC model to the Australian female data provided (for ages 0-89 and years 1970-2018).
   (b) Plot the estimated parameters over age or year.
   (c) Project and simulate future death rates until year 2050.
   (d) Plot the historical and projected (log) central death rates of ages 30 and 65 over time and the corresponding 95% prediction intervals.

9.2 Developing your own R codes, perform the following tasks:
   (a) Fit the CBD model to the Australian male data provided (for ages 60-89 and years 1970-2018).
   (b) Plot the estimated series of parameters over year.
   (c) Project and simulate future mortality rates until year 2050.
   (d) Plot the historical and projected (log) mortality rates of age 65 over time and the corresponding 90% prediction intervals.