Homework # 1 (due 9/17)

STAT 6180 (Fall 2022): Time Series Analysis

I. Data analysis

All the R outputs should be turned in with the source code.

1. Find a time series data of your own interest.
    - Plot the data properly.
    - Identify any trend or seasonality or both in your data.
    - Transform the data into a stationary process and plot the transformed data.
2. Consider the *Nile* and the *JohnsonJohnson* data in R Datasets package. For each one of the two:
    - Transform the original time series into a stationary process.
    - Plot the original data, transformed data, and the sample ACF of the transformed data on one page.

II. Theory

(Brockwell and Davis) 1.4, 1.7, 1.15.