

Instructions: For these weekly coding assignments, you will be asked to extend the examples from class to create custom code to answer the questions below. You will create an R code file that uses built-in datasets as the data sources. You will write the code, and an example showing that the code works. Be sure to include any packages in the code that are required for the functions to run (you may want to clear the environment in RStudio before your final check to make sure nothing is missing). The instructor will run the file to ensure that it works with no errors. Clearly label your code so it's clear which question/task is being responded to.

Submission:

A word document with any explanations (if needed), and a clearly labeled R code file.

Tasks/Questions:

1. Use the built-in dataset sunspots and perform a by-hand analysis of the time series based on examples from lecture. When using the `decompose()` function in R, the sunspots dataset does poorly on the default settings since there doesn't seem to be an annual cycle, instead there is an 11-year cycle. Use that information in your analysis.