# **Graphs**

## Problem 11

Generate a GNUPlot data file and use GNUPlot to do a plot similar to what you did in question 6 but only for the years 1850 to 2015 and add the data for the **land** and **ocean** average temperatures columns. Have the two lines on the same figure. Label the axes clearly and add a title and legend to your graph.

Plot (screenshot of the plot)

#### **GNU PLOT SCRIPT FOR QUESTION 11:**

#### **Purpose:**

The goal of the linear plot graph setup is to showcase a GNUPlot question 6. This time covering the years 1850 to 2015 and including data, for both land and ocean average temperatures. In this GNUPlot graph we plan to incorporate two linear plot lines within the visual, ensuring proper labeling of the axes and adding a title and legend to enhance clarity.

### **Conflicts:**

There were minor problems with coding for GNUplot in this particular scenario. Specifically incorporating lines of the yearly temperature for the ocean and land columns of the following years; 1850-2015, on the graph posed a challenge. Additionally setting up the for loop to input the values into the file proved to be somewhat troublesome.

#### **Outputs/Analysis:**

The result displays a line plot depicting lines representing the land and ocean average temperatures from 1850 to 2015. The pattern, in this graph, alternates in a pattern quickly resembling an exponential curve overall. To improve the presentation the axes were annotated with titles and a legend.

# How we would approach next time:

Ultimately, when approaching this question the steps to consider would remain unchanged as it is a query, with options to explore.