

EOSC 211: Intro Activity: Making Observations

Name 1:

Name 2:

Name 3:

GOALS: (1) Make observations from CO₂ and temperature records to (1) decide how CO₂ and temperature have been, and are, changing, (2) practice and example of “doing calculations by hand” to provide test data for coding, (3) practice very rudimentary “algorithm design”.

A. Make 3 observations about each of the temperature and CO₂ records

Temp1. _____

Temp2. _____

Temp3. _____

CO2-1. _____

CO2-2. _____

CO2-3. _____

B. Write down one question you have about each record. (Try to pick a different question for each one).

1. _____

2. _____

C. Estimate (from the graphs) by how much temperature and CO₂ have between 1960 and the present.

Temperature: _____

CO2: _____

D. Imagine you have a file that contains the data needed to make the plot in 4 columns with year, month, temperature, and CO₂ (i.e. an average value per month of CO₂ and temperature) in each column and you wanted to write code to do the calculation in C. What would your code need to do? Try to break this down into very explicit steps (any number of steps)

Step 1: _____

Step 2: _____

Step 3: _____

Step 4: _____

Step 5: _____

Step 6: _____

D. Based on the data in the CO₂ plot, for how long do you think you need to observe CO₂ to decide whether it is increasing? Write down how you decided this.

How long? _____

Reason? _____

E. Based on the data in the temperature plot, for how long do you think you need to observe temperature to decide whether it is increasing? Write down how you decided this.

How long? _____

Reason? _____

