Homework 00: Getting Jupyter up and running

Name: Matthew Mayer

This assignment is due on Canvas by **6:00PM on Friday August 26**. Your solutions to theoretical questions should be done in Markdown directly below the associated question. Your solutions to computational questions should include any specified Python code and results as well as written commentary on your conclusions. Remember that you are encouraged to discuss the problems with your classmates, but **you must write all code and solutions on your own**.

NOTES:

- Any relevant data sets should be available in the Homework 00 assignment write-up on Canvas. To make life easier on the grader if they need to run your code, do not change the relative path names here. Instead, move the files around on your computer.
- If you're not familiar with typesetting math directly into Markdown then by all means, do your work on paper first and then typeset it later. Remember that there is a reference guide linked on Canvas on writing math in Markdown. **All** of your written commentary, justifications and mathematical work should be in Markdown.
- Because you can technically evaluate notebook cells is a non-linear order, it's a good idea to do Kernel $\rightarrow$ Restart & Run All as a check before submitting your solutions. That way if we need to run your code you will know that it will work as expected.
- It is **bad form** to make your reader interpret numerical output from your code. If a question asks you to compute some value from the data you should show your code output **AND** write a summary of the results in Markdown directly below your code.
- This probably goes without saying, but... For any question that asks you to calculate something, you **must show all work and justify your answers to receive credit**. Sparse or nonexistent work will receive sparse or nonexistent credit.
- Make sure to save your file as HW0_LASTNAME_FIRSTNAME when you turn it in to Canvas. For instance, if I were to turn in this assignment, then mine would be named HW0_Cox_Murray.

Task 1:

```
Create a markdown cell to introduce yourself.

It should contain:
1] A large print heading of your name
2] Some text about yourself
```

```
3] Some mathematical LaTeX
4] A link
5] A picture

It should look similar to the following cell:
```

Murray Cox

CU Position: Associate Teaching Professor

Equation using LaTeX: $\int_0^3 x^2 dx = \dfrac{27}{3} - \dfrac{0}{3} = \boxed{9}$

Link to our Canvas page: [Canvas](#)

Parker and Danica:

Note: pictures can be added if you choose 'edit' from the menu, then 'insert image'. The image should be a jpeg.

Matthew Mayer

Matt is pretty cool.

$\sum_{i=0}^{5} 1 = 5$

[AMONG US](#)

Task 2:

Use Python to calculate the following.

1] What is 12 added to 3?

2] What is the remainder when 12 is divided by 5?

3] What is the integer result of 12 divided by 5?

4] What is the real number result of 12 divided by 5?

5] What is 12 to the 3rd power?

```
In [ ]:   # $\color{red}{\text{Your answer to task 2 goes in this cell}}$
          print("1:", 12+3)
          print("2:", 12//5)
          print("3:", 12%5)
          print("4:", 12/5)
          print("5:", pow(12,3))
```

```
1: 15
2: 2
3: 2
4: 2.4
5: 1728
```

Task 3:

Write code that will determine, and print, whether or not the value of x (seen in the next cell) is a multiple of 3.

In [ ]:
```python
x=13
```

Your answer to task 3 goes in the cell below

In [ ]:
```python
if x%3==0:
    print("x is a multiple of 3.")
else:
    print("x is not a multiple of 3.")
```

x is not a multiple of 3.

In [ ]: