

Last name _____

First name _____

LARSON—MATH 310—HOMEWORK WORKSHEET 06

Matrices in Numpy and Sympy.

Set up your JUPYTER notebook for this work.

1. Create a new Jupyter Notebook with Python as the kernel.

If you don't have a preferred Jupyter Notebooks et-up, use Google Colab (`colab.google.com`), login with your VCU credentials, and use that. It's free, and part of the Google suite VCU pays for. Google Coalb has all the packages we'll need from our text including `numpy` and `matplotlib`.

2. Call this file **310-h06.ipynb**.
3. Make sure you have PYTHON as the *kernel*.

Assignment.

1. **Read** Sections 4.1 through 4.5 of Tsukada, et al., *Linear Algebra with Python*.
2. Our book has code examples. For each code example in those sections, copy the code and:
 - (a) **Annotate** your code block so it clearly indicates which program this is, either with the program name, or the page number, etc.)
 - (b) **Run** the code block in your Jupyter notebook. It should run. If you get an error, you need to fix that.

You may be able to avoid cutting and pasting code from the book by downloading all the code from the authors at:

<https://www.math-game-labo.com/en/support/isbn9789819929511/>.

The point now to get acquainted with Numpy and Sympy, their data structures and methods, to reinforce what we are learning in class—and ultimately be able to compute any linear algebra computations that appear in your research or career, etc..

Getting your homework recorded

1. Save your Jupyter Notebook file (310-h06.ipynb file).
2. Send me an email (`clarson@vcu.edu`) with an informative header like "Math 310 - h06 homework attached" (so that it will be properly recorded and findable when I search for these emails).
3. Remember to **attach** the .ipynb file for this assignment.