

**LARSON—MATH 255—HOMEWORK WORKSHEET 04**  
**Programming for Computations (book).**

1. Log in to CoCalc.
  - (a) Start the Chrome browser.
  - (b) Go to <https://cocalc.com>
  - (c) Login (**your VCU email address** is probably your username).
  - (d) You should see an existing Project for our class. Click on that.
  - (e) Click “New”, then “Jupyter Notebook”, then call it **h04**.
  - (f) **Annotate your work carefully and completely. The more explanation the better!**

The following readings and related work come from Linge & Langtangen’s Programming for Computations (2nd ed). The VCU Library has digital access to this book and there is also a pdf in your CoCalc project Handouts folder.

**When you are asked what *kernel* you want to use, choose the *Python 3 kernel*—we’ll only use Python for code from the book, and never the extra Sage functions.**

2. **Read Sections 3.1 through 3.3.**

As you read, **run all the code** that you see on your worksheet. Annotate appropriately. In particular I should be able to determine what section/subsection of the book your code snippets came from. Make sure that the code runs—or get help.

3. If you have questions, put your questions in the notes and double-box them so I can easily find them.

**If you cut-and-pasted the code and it doesn’t execute, you must double-check that the formatting is still the same and that special characters, importantly quotation marks, aren’t red.**

### **Getting your homework recorded**

When you are done writing up your nicely annotated code examples...

- (a) Click the Printer-icon button and make a pdf of this worksheet. (If Cocalc hangs, click the *File* button, then Save-and-Download as pdf (via “JupyterLab notebook” is slightly more attractive than than the “Classic” option).
- (b) Send me an email with an informative header like “Math 255—h04 worksheet attached” (so that it will be properly recorded).
- (c) Remember to attach your homework worksheet pdf!