Calculus Lab: An Introduction
Department of Mathematics

Instructions

The purpose of this week's lab is for you to become familiar with the network and SageMath. You will learn how to login and logout of the network and how to access SageMath and the Internet. You will also learn how to install SageMath on your personal computer, if you would like. Once this is complete, you will begin to learn about SageMath by working through an interactive SageMath worksheet.

Login and Logout

- When you are seated at a computer on the network, begin the login process by pressing **Ctrl-Alt-Delete**. This will open a window in which you will be asked to enter your username and password. You should log on using your USC network username and password. (This is the same username/password that you use to access your universityemail.)

- If you have trouble logging onto the network, you will need to look on with someone else for this lab. Before next week's lab, please email help@math.sc.edu for assistance.

- Once you are logged in, take a look at your Windows desktop. You should see several icons, including ones for Google Chrome and SageMath 9.2 - Notebook.

- To logout, click **Start** button or press **Ctrl-Alt-Delete**. Click on **Log Off** . . . confirm that you want to logout be pressing the button labeled **Log Off**. **Do not turn off the computer.**

Installing and Accessing Sage

Detailed instructions on how to install and access SageMath 9.2 are given in the Accessing Sage section on the calculus lab website.

Accessing the Internet and Lab Materials

- Google Chrome is the standard browser provided in our computer labs. An icon for Google Chrome should be on your desktop. Double click this icon to launch the browser.

- Open the Lab homepage

    http://people.math.sc.edu/calclab.

    Add this page to your list of favorite websites.

- The lab homepage contains links to all lab materials for both Math 141 and Math 142, the Lab Syllabus, and a Reference Guide.

New User's Tour

- From the Lab homepage, choose either Math 141 or Math 142. This page contains all of the lab worksheets for the course.

- If you are using an installed copy of SageMath, click on the link for **Lab 01** in the file column. This will download a copy of the lab to your Downloads folder. To open the file, first open SageMath 9.2 on your computer. Then navigate to the Downloads folder and select the file.

- If you are using Binder, then click on the link for **Lab 01** in the Binder Link column. This will open up the file in the browser. Note that Binder may take a minute or so to start.

- Once everyone has the lab opened, your TA will guide you through the interactive introduction to SageMath.

- If you want to be able to return to anything you have worked on in Sage, you must save your work as a Sage Notebook. This is done by selecting **Download As...** from the **File** menu, and then choosing **Notebook (.ipynb)**. It is best to save your work to the **Z:** drive so make sure to copy the file from the **Downloads** folder on the computer and move it to your **Z:** drive.

- When you have finished (or the lab session ends), please exit your SageMath session and logout of the network. Do not forget to save useful work to the **Z:** drive before exiting.

Assignment

Complete the **New User's Tour** if you did not finish in the lab. Also, your lab instructor may give a homework assignment for each section.