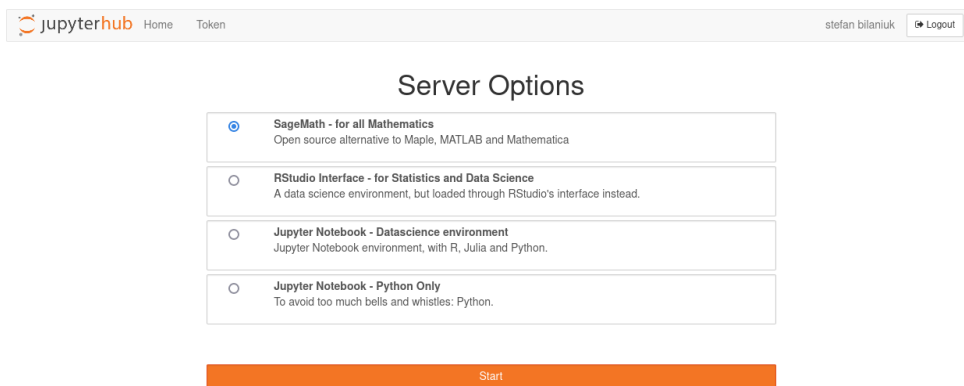


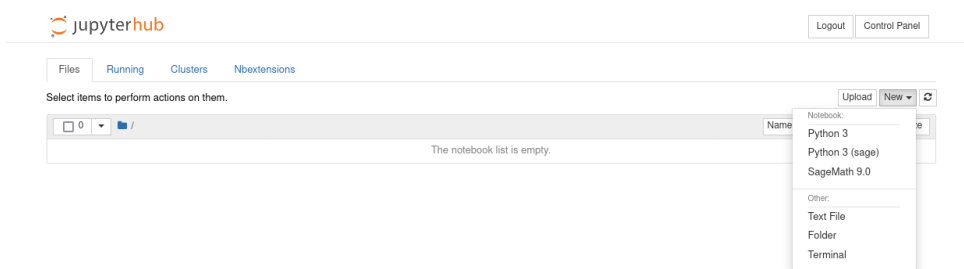
Mathematics 1120H – Calculus II: Integrals and Series
TRENT UNIVERSITY, Winter 2022
Getting Started with `sage.trentu.ca`

SageMath is a cross-platform program that rolls together the functionality of many pieces of open-source mathematics software to get something comparable to the general-purpose mathematics programs Mathematica or Maple. Unlike those two programs, SageMath is free to use. However, like those two programs, SageMath can be pretty resource-hungry and finicky to install, so at Trent we're running it on a server that you can access via your browser and do all your work online in a Jupyter notebook. Those of you who are interested in installing SageMath on your own computer should go to <https://www.sagemath.org> and take it from there. Most of the rest of this document is about getting started with Trent's SageMath server.

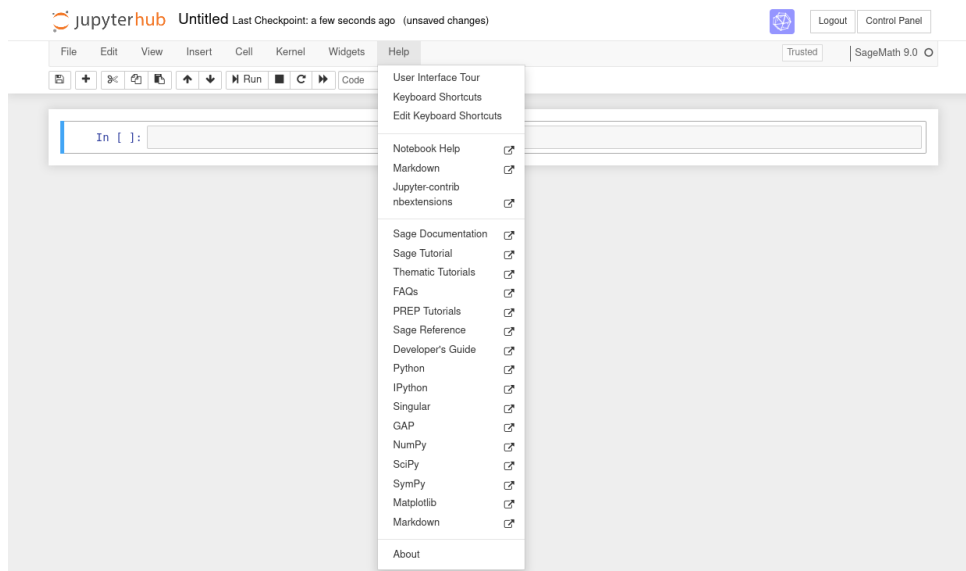
Point your browser to <https://sage.trentu.ca> and go there. (There is also a link in the SageMath folder in the Course Content section of the MATH 1110H-C Blackboard site.) If you are not already logged in via MyTrent or Blackboard, you will be asked to login using your Trent email and password. This should bring you to a page that looks like:



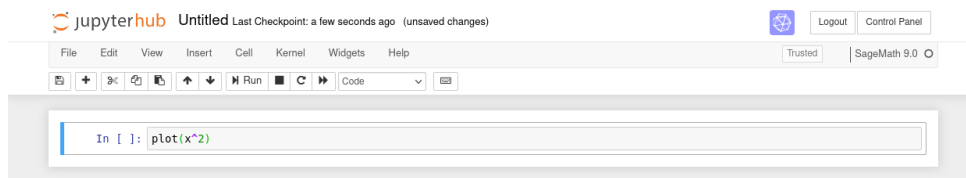
Make sure that SageMath is selected and click on the Next button. This should bring you to a page that looks like:



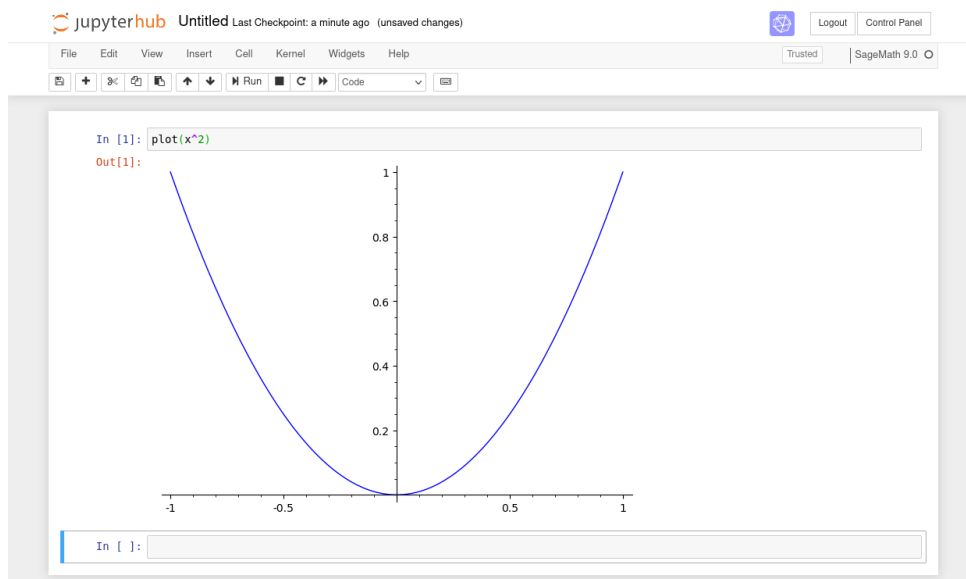
Selecting SageMath 9.0 from the New menu should bring you to a page that looks like



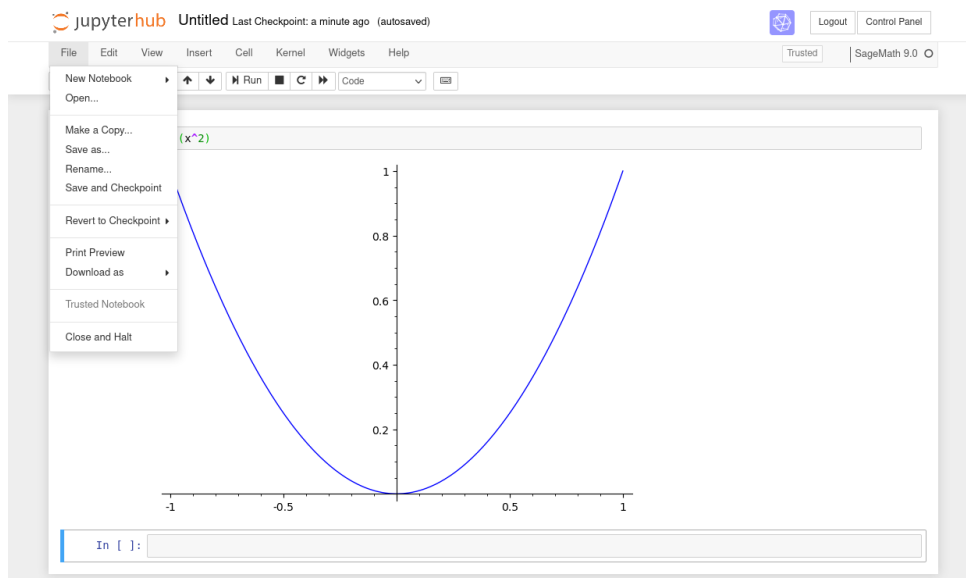
when you click on the Help menu. Unfortunately, the help menu items related to SageMath, as well as many others, are not active as of this document being written. However, you are in a position to type in SageMath commands, such as the command to draw a graph of $y = x^2$ below. When you click on the Run button you should get the following:



You can do the usual file operations, including saving what you have produced in some other format, using the File menu:



In particular, you can use the “Save as . . . ” item in the File menu to save your work in pdf format for submission as part or all of an assignment.



To actually learn about SageMath and what it can do, take a peek at the documents in the SageMath folder in the Course Content section of the MATH 1120H Blackboard site. In particular, two quick references for SageMath commands, one them optimized for calculus, and a book, *Sage for Undergraduates* by Gregory Bard, may be useful.