Running SageMath (with or without installation)

http://www.sagemath.org/

Various ways to install/access SageMath 7.5.1

- Install on your computer: 2 options:
  - install a compiled binary version for Linux, MacOS X or Windows[1] from http://www.sagemath.org/download.html
  - compile from source (Linux, MacOS X): check the prerequisites (see here for Ubuntu) and run

```
git clone git://github.com/sagemath/sage.git
cd sage
MAKE='make -j8' make
```

- Run on your computer without installation: **Sage Debian Live**
  http://sagedebianlive.metelu.net/
  Bootable USB flash drive with SageMath (boosted with octave, scilab), Geogebra, LaTeX, gimp, vlc, LibreOffice,...
- Open a (free) account on **SageMathCloud**
  https://cloud.sagemath.com/
- Run in **SageMathCell**
  Single cell mode: http://sagecell.sagemath.org/

[1] requires VirtualBox; alternatively, a full Windows installer is in pre-release stage at https://github.com/embray/sage-windows/releases

Example 1: installing on Ubuntu 16.04

1. Download the archive `sage-7.5.1-Ubuntu_16.04-x86_64.tar.bz2` from one the mirrors listed at
   http://www.sagemath.org/download-linux.html
2. Run the following commands in a terminal:

```
bunzip2 sage-7.5.1-Ubuntu_16.04-x86_64.tar.bz2
tar xvf sage-7.5.1-Ubuntu_16.04-x86_64.tar
cd SageMath
./sage -n jupyter
```

   A Jupyter home page should then open in your browser. Click on *New* and select *SageMath 7.5.1* to open a Jupyter notebook with a SageMath kernel.

Example 2: using the SageMathCloud

1. Open a free account on https://cloud.sagemath.com/
2. Create a new project
3. In the second top menu, click on *New* to create a new file
4. Select *Jupyter Notebook* for the file type
5. In the Jupyter menu, click on *Kernel*, then *Change kernel* and choose *SageMath 7.5*

Various ways to run SageMath

- Console mode:
  run `sage`
- Jupyter Notebook:
  run `sage -n jupyter`
  $\Longrightarrow$ worksheet file format: `ipynb`
- Legacy Sage Notebook:
  run `sage -n`
  $\Longrightarrow$ worksheet file format: `sws`
- SageMathCloud:
  in your browser, open `https://cloud.sagemath.com/`
  $\Longrightarrow$ worksheet file format: `sagews`, `ipynb`