

# Running SageMath (with or without installation)

<http://www.sagemath.org/>

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

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  - compile from source (Linux, MacOS X): check the prerequisites (see [here](#) for Ubuntu) and run

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- **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,...

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- **Run in SageMathCell**  
Single cell mode: <http://sagecell.sagemath.org/>

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## Example 1: installing on Ubuntu 16.04

- 1 Download the archive `sage-7.6-Ubuntu_16.04-x86_64.tar.bz2` from one of the mirrors listed at <http://www.sagemath.org/download-linux.html>
- 2 Run the following commands in a terminal:

```
bunzip2 sage-7.6-Ubuntu_16.04-x86_64.tar.bz2
tar xvf sage-7.6-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 7.6* to open a Jupyter notebook with a SageMath kernel.



## Example 2: using CoCalc

- 1 Open a free account on <https://cocalc.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 (third row from the top), click on *Kernel*, then *Change kernel* and choose *SageMath 7.6*

# Various ways to run SageMath

- **Console mode:**

run `sage`

- **Jupyter Notebook:**

run `sage -n jupyter`

⇒ worksheet file format: `ipynb`

- **Legacy Sage Notebook:**

run `sage -n`

⇒ worksheet file format: `sws`

- **<https://cocalc.com/>:**

in your browser, open <https://cocalc.com/>

⇒ worksheet file format: `sagews`, `ipynb`