

Manual Introdutório GNU Octave

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O que é GNU Octave?

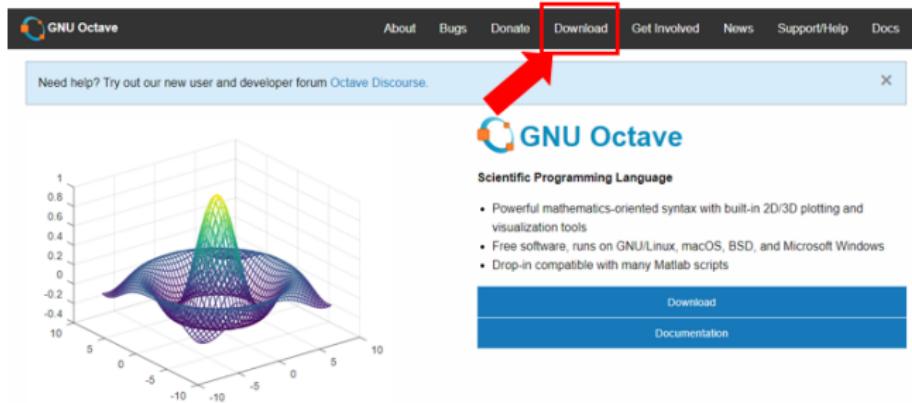
O GNU Octave é um *software* livre (ou seja, gratuito), sob licença GPL para cálculos matemáticos. Sua linguagem é de alto nível e similar ao *software* MATLAB. Funciona em diversos sistemas operacionais, como o Windows, Linux (versão Ubuntu) e MacOS, por exemplo.



*Picture obtained from Google Images.

O que é GNU Octave?

Para a instalar, acessar o site: <https://www.gnu.org/software/octave/index>, onde aparecerá a tela, conforme a figura abaixo. Em seguida, escolher a opção **download**:



*Picture obtained from <https://www.gnu.org/software/octave/index>.

O que é GNU Octave?

Abrirá uma tela com opções dos sistemas operacionais compatíveis com o GNU Octave. Escolher o S.O. da máquina que usa:

The screenshot shows the official GNU Octave website's download section. At the top, there is a dark navigation bar with the "GNU Octave" logo and links for About, Bugs, Donate, Download, Get Involved, News, Support/Help, and Docs. Below this, a large heading says "Download". Underneath, there are five blue tabs: "Source", "GNU/Linux", "macOS", "BSD", and "MS Windows". The "MS Windows" tab is highlighted with a white background.

Os slides a seguir, mostrarão o passo a passo da instalação do GNU Octave nos Sistemas Operacionais (S.O.) listados abaixo. Clicar o sistema operacional da máquina:

- **Windows**;
- **Linux Ubuntu**;
- **MacOS**.

*Picture obtained from <https://www.gnu.org/software/octave/download>.



Instalação no S.O. Windows



*Picture obtained from Google Images.



Instalação no S.O. Windows

Ao escolher o **MS Windows**, aparecerá a seguinte tela:

The screenshot shows the GNU Octave website's download section for Windows. It features a navigation bar with links for About, Bugs, Donate, Download, Get Involved, News, Support/Help, and Docs. Below the navigation bar, the text "Microsoft Windows" is displayed. A note states: "Note: All installers below bundle several **Octave packages** so they don't have to be installed separately. After installation type `pkg list` to list them." There is a "Read more..." link and a close button (X). The main content area lists download options:

- Windows-64 (recommended)
 - [octave-6.2.0-w64-installer.exe](#) (~ 300 MB) [signature]
 - [octave-6.2.0-w64.7z](#) (~ 300 MB) [signature]
 - [octave-6.2.0-w64.zip](#) (~ 530 MB) [signature]
- Windows-32 (old computers)
 - [octave-6.2.0-w32-installer.exe](#) (~ 275 MB) [signature]
 - [octave-6.2.0-w32.7z](#) (~ 258 MB) [signature]
 - [octave-6.2.0-w32.zip](#) (~ 447 MB) [signature]
- Windows-64 (64-bit linear algebra for large data)

Unless your computer has more than ~32GB of memory and you need to solve linear algebra problems with arrays containing more than ~2 billion elements, this version will offer no advantage over the recommended Windows-64 version above.

 - [octave-6.2.0-w64-64-installer.exe](#) (~ 286 MB) [signature]
 - [octave-6.2.0-w64-64.7z](#) (~ 279 MB) [signature]
 - [octave-6.2.0-w64-64.zip](#) (~ 490 MB) [signature]

All Windows binaries with corresponding source code can be downloaded from <https://ftpmirror.gnu.org/octave/windows/>.

*Picture obtained from <https://www.gnu.org/software/octave/download#ms-windows>.



Instalação no S.O. Windows

O próprio site recomenda a versão a ser instalada. Escolher a primeira opção, conforme exemplo a seguir (válido para as demais versões):

The screenshot shows the GNU Octave download page for Windows. At the top, there's a navigation bar with links for About, Bugs, Donate, Download, Get Involved, News, Support/Help, and Docs. Below the navigation bar, it says "Microsoft Windows". A note at the top states: "Note: All installers below bundle several Octave packages so they don't have to be installed separately. After installation type `pkg list` to list them." Below this note, there's a "Read more..." link. A red arrow points to the first item in the list of download links: "octave-6.2.0-w64-7z (~ 300 MB) [signature]". Other items in the list include "octave-6.2.0-w64.exe (~ 300 MB) [signature]" and "octave-6.2.0-w64.zip (~ 530 MB) [signature]".

ATENÇÃO!!!

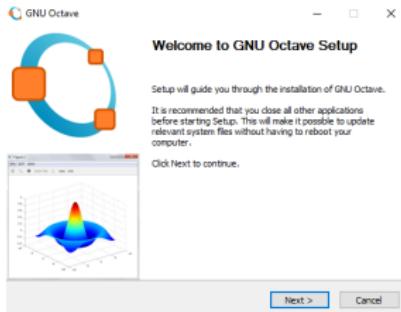
Caso o site não aponte a versão do Windows instalada e você não saiba qual seja, no windows ir em: **painel de controle → Sistema** (ou **painel de controle → Sistema e Segurança → Sistema**).



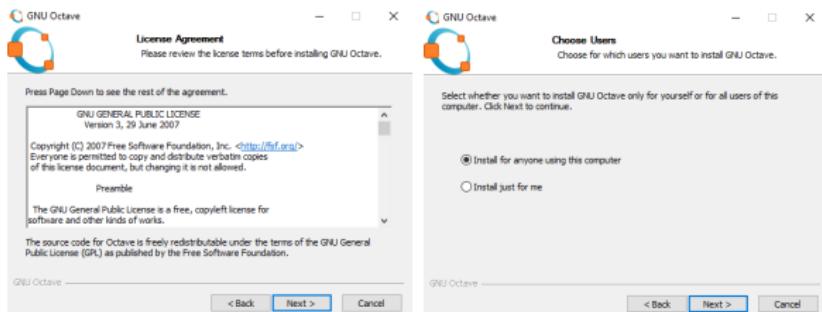
*Picture obtained from <https://www.gnu.org/software/octave/download#ms-windows>.

Instalação no S.O. Windows

Após o **download**, abrir o arquivo. Clicar em **next**:

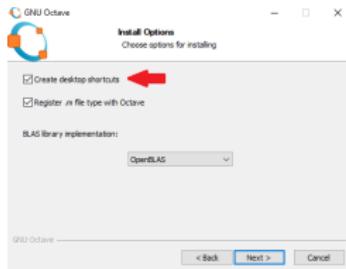


Escolher **next** nas duas telas que aparecerão em sequência:

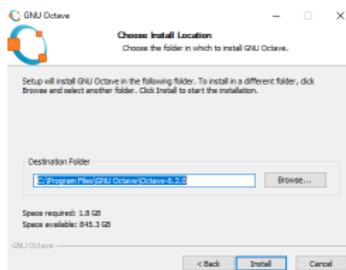


Instalação no S.O. Windows

Deixar as opções marcadas (a opção destacada é opcional mas recomendada, pois cria um atalho na área de trabalho. Clicar em **next**:

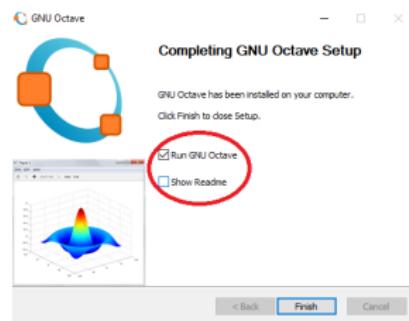
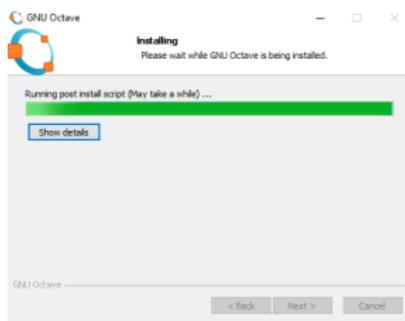


A seguir, pergunta-se o local de instalação. Deixar o caminho recomendado e clicar em **install**:



Instalação no S.O. Windows

Esperar o processo de instalação. Pode demorar um pouco dependendo da capacidade do processador do computador. Assim que terminar, aparecerá a tela a abaixo. Desmarcar a segunda opção e, em seguida, clicar em **finish**:



Instalação no S.O. Windows

Como é a primeira vez que o GNU Octave está sendo usado na máquina, aparecerá uma janela de instalação da interface gráfica.
Clicar em **avançar**:

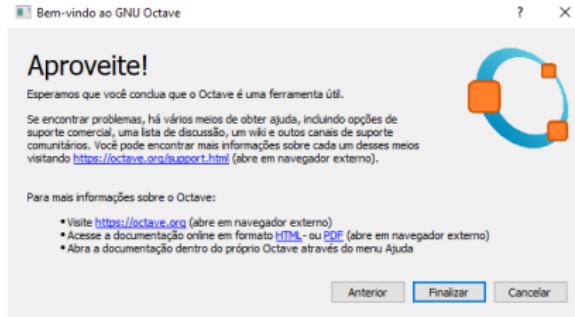


Deixar a opção da caixinha desmarcada. Clicar em **próximo**:



Instalação no S.O. Windows

Clicar em **finalizar**:



Pronto! o **GNU Octave** foi instalado! Ele abrirá automaticamente.
Caso não abra, clicar no atalho criado na área de trabalho.



Instalação no S.O. Windows

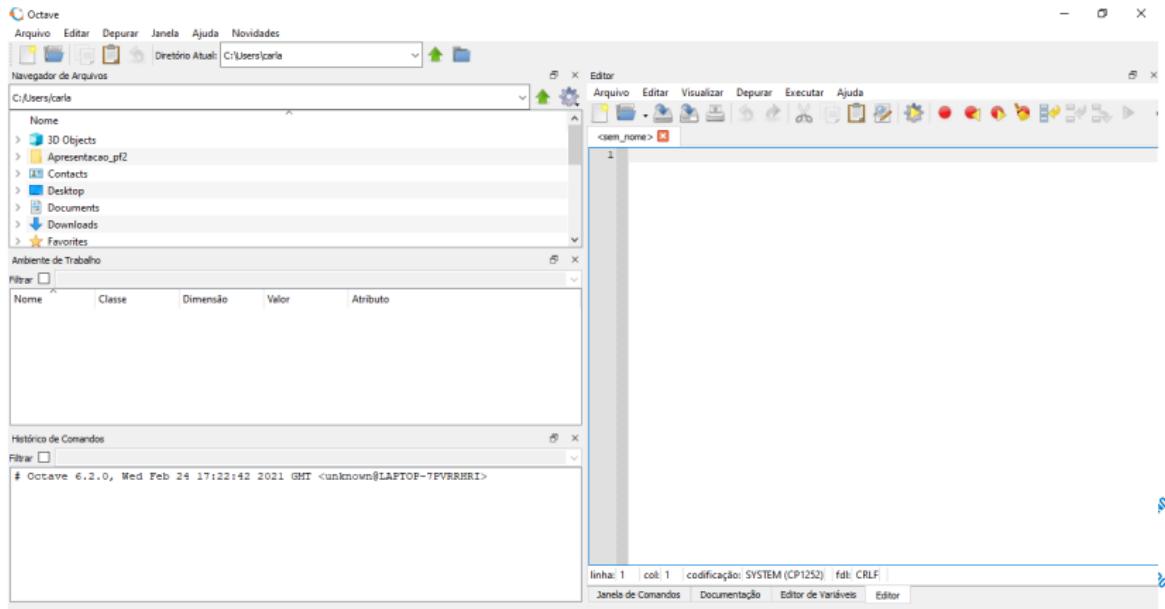
ATENÇÃO!!!

Pode ocorrer de aparecerem dois ícones do **GNU Octave** na Área de Trabalho. Para abrir o programa, escolher a opção destacada em vermelho (a outra pode ser excluída):



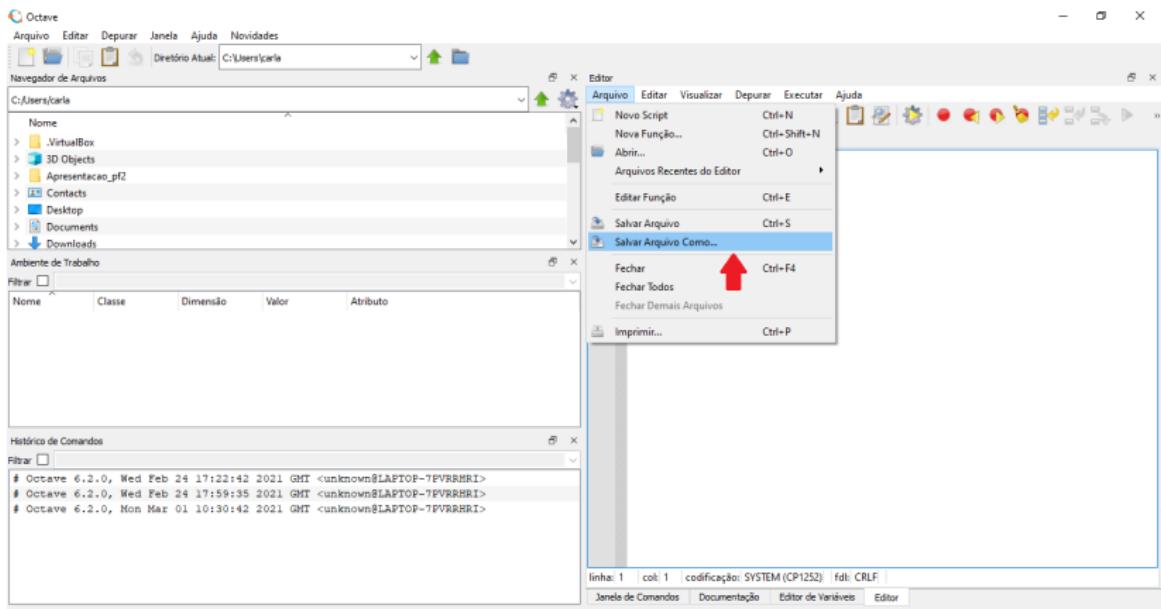
Criando um Arquivo

Para começar a trabalhar no GNU Octave, ir em: **Arquivo → Novo → Novo Script** (se estiver em inglês: **File → New → New Script**). A figura abaixo mostra a tela que deverá ser exibida:



Salvando um Arquivo

Para salvar um arquivo, ir em: **Arquivo** → **Salvar Arquivo Como** (Se estiver em inglês: **File** → **Save file as**). A figura abaixo mostra a tela que deverá ser exibida:



Instalação no S.O. Linux Ubuntu



*Picture obtained from Google Images.



Instalação no S.O. Linux Ubuntu

Para a instalação do **GNU Octave** no **Linux**, após selecionar o sistema GNU/Linux dentre as opções disponíveis no site de instalação, você será redirecionado para a tela a seguir. Clicar em **Octave Wiki**, em destaque:

The screenshot shows the top navigation bar of the GNU Octave website. The menu items are: About, Bugs, Donate, Download, Get Involved, News, Support/Help, and Docs. The 'About' item is highlighted with a red box.

GNU/Linux

Packaged versions of Octave for GNU/Linux systems are provided by the individual distributions described in the [Octave wiki](#). These packages are created by volunteers. The delay between an Octave source release and the availability of a package for a particular GNU/Linux distribution varies.

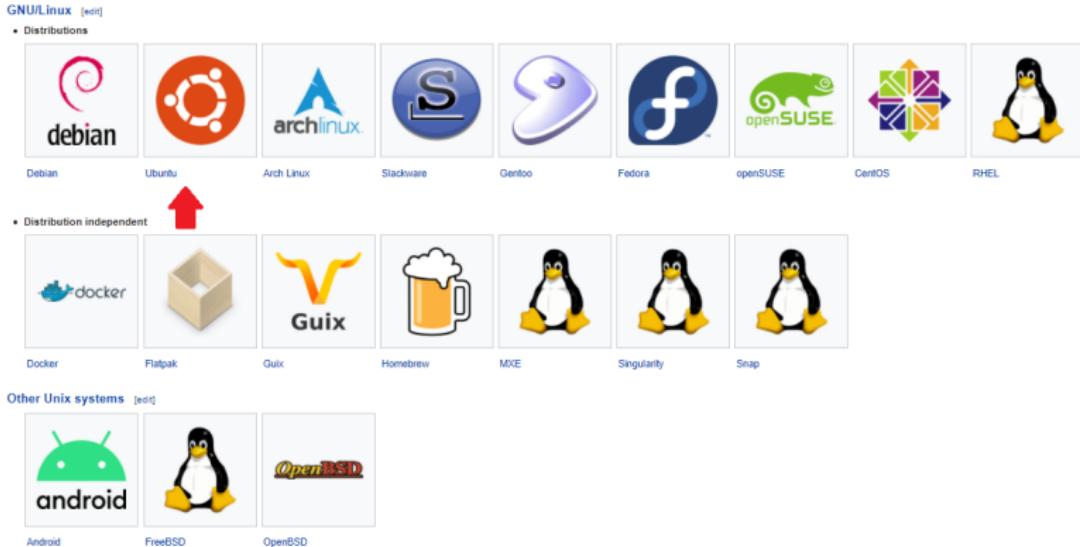
Alternatively, there are some distribution independent installation methods for more recent versions of GNU Octave described in the [Octave wiki](#).

O Linux, por ser um sistema operacional *OpenSource* (ou seja, de código aberto), possui versões diferentes desenvolvidas por diversos programadores. Neste tutorial, será instalada a versão **Ubuntu**:

*Picture obtained from <https://www.gnu.org/software/octave/download#linux>.

Instalação no S.O. Linux Ubuntu

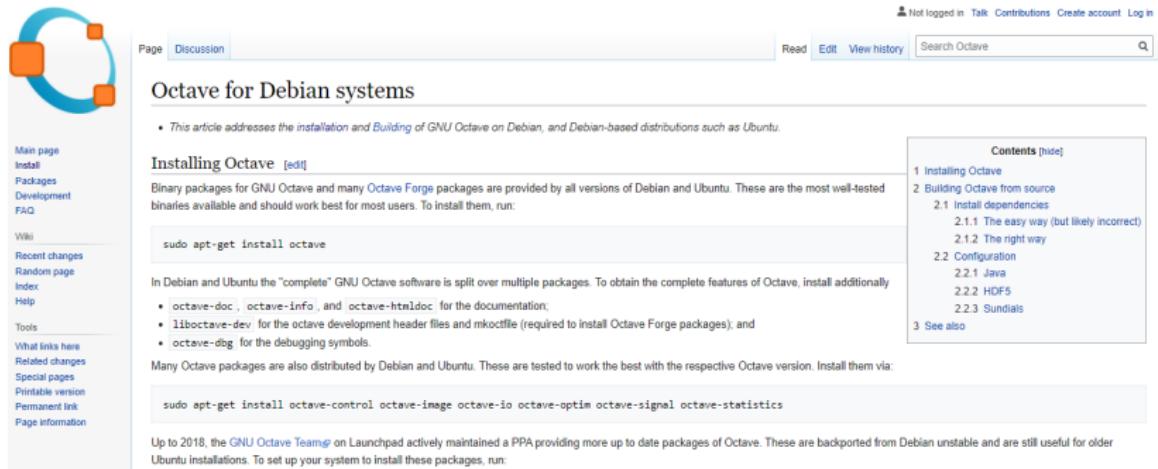
Escolher a versão **Ubuntu**:



*Picture obtained from <https://wiki.octave.org/Category:Installation>.

Instalação no S.O. Linux Ubuntu

Aparecerá a tela abaixo:



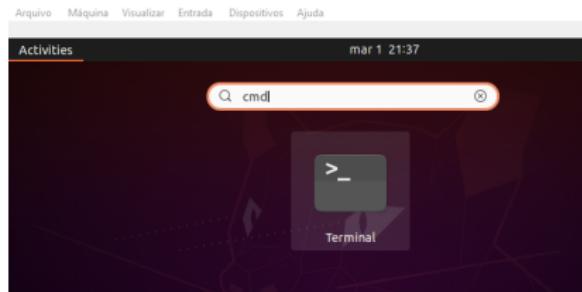
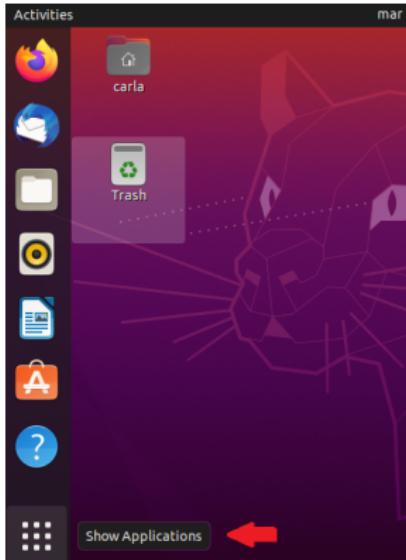
The screenshot shows a Wikipedia-style article page for "Octave for Debian systems". The page has a blue header bar with tabs for "Page" (selected), "Discussion", "Read", "Edit", "View history", and a search bar. The main content area has a large blue circular logo at the top left. Below it, the title "Octave for Debian systems" is displayed. A note below the title states: "This article addresses the installation and Building of GNU Octave on Debian, and Debian-based distributions such as Ubuntu." The "Installing Octave" section contains instructions for installing Octave using apt-get: "sudo apt-get install octave". It also notes that in Debian and Ubuntu, Octave is split into multiple packages and provides additional documentation packages like "octave-doc", "octave-info", and "octave-htmldoc". Another section lists packages for development and debugging: "liboctave-dev", "octave-dbg". The "See also" section links to other Octave-related pages. On the left sidebar, there's a navigation menu with links to Main page, Install, Packages, Development, FAQ, Wiki, Recent changes, Random page, Index, Help, Tools, What links here, Related changes, Special pages, Printable version, Permanent link, and Page information.

*Picture obtained from https://wiki.octave.org/Octave_for_Debian_systems.



Instalação no S.O. Linux Ubuntu

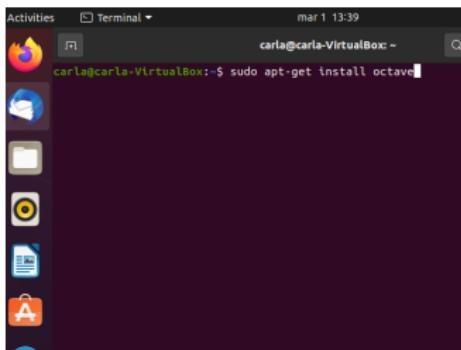
Ir em **exibir aplicativos** (ou **Show applications**) e digitar na barra de pesquisa o **CMD** para abrir o terminal, conforme as telas a seguir:



Instalação no S.O. Linux Ubuntu

Depois, no **prompt de comando** digitar:

sudo apt-get install octave



Esperar a instalação ocorrer de forma automática. Assim que terminar, o cursor no terminal ficará piscando, aparecerá **Installation Successful**. Fechar o terminal e abrir o **GNU Octave**.

Instalação no S.O. Linux Ubuntu

ATENÇÃO!!!

- 1 Na instalação Linux versão Ubuntu, pode ocorrer solicitação de instalação de alguns pacotes adicionais. Para mais informações, acessar:

https://wiki.octave.org/Octave_for_Debian_systems

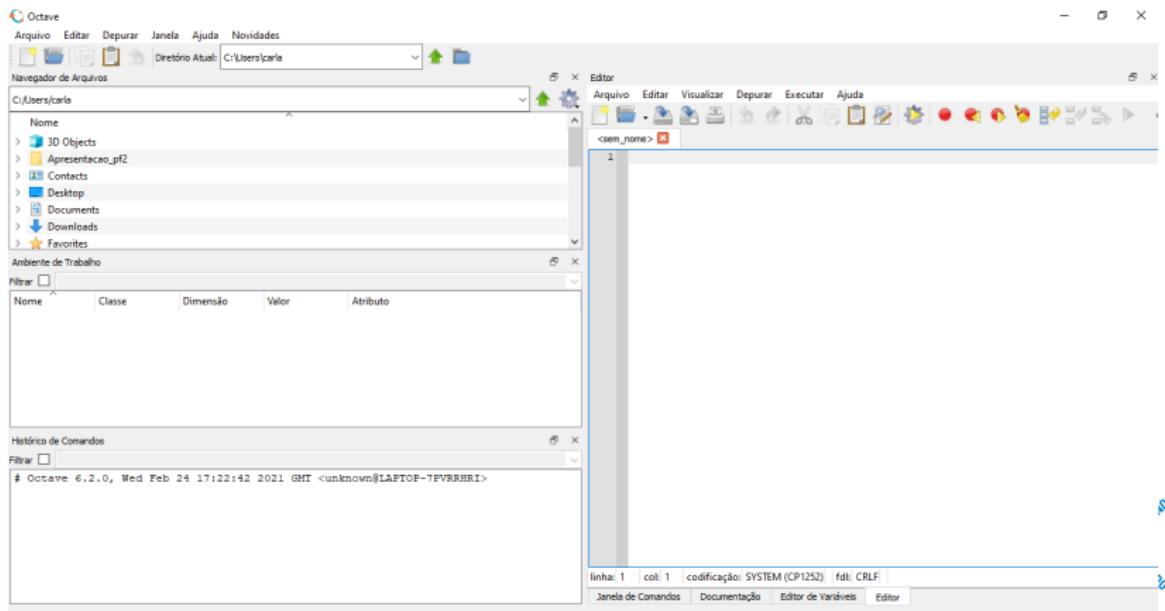
- 2 Caso a versão do Linux instalada no computador seja outra, acessar o site abaixo, escolher a versão do sistema e seguir os passos disponibilizados:

[https://wiki.octave.org/Category:Installation.](https://wiki.octave.org/Category:Installation)



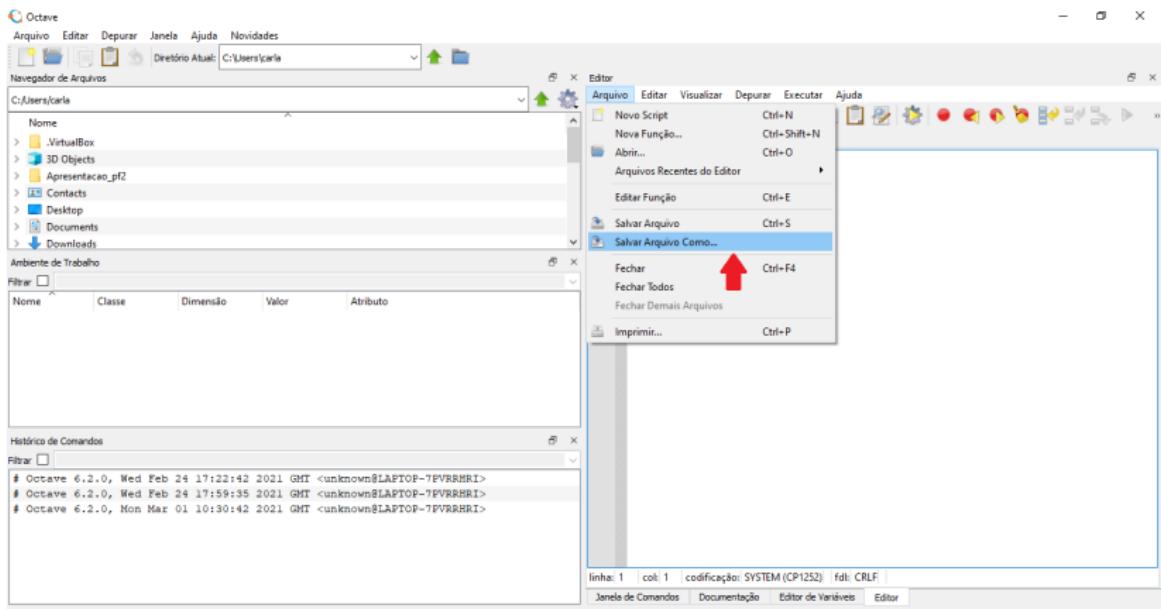
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Para começar a trabalhar no GNU Octave, ir em: **Arquivo → Novo → Novo Script** (se estiver em inglês: **File → New → New Script**). A figura abaixo mostra a tela que deverá ser exibida:

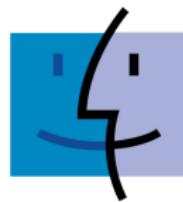


Salvando um Arquivo

Para salvar um arquivo, ir em: **Arquivo** → **Salvar Arquivo Como** (Se estiver em inglês: **File** → **Save file as**). A figura abaixo mostra a tela que deverá ser exibida:



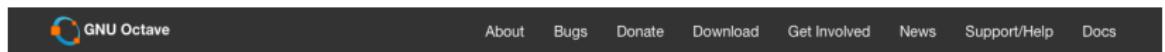
Instalação no S.O. macOS



MacTM OS

Instalação no S.O. macOS

Para a instalação do GNU Octave no macOS, após selecionar o sistema macOS dentre as opções disponíveis no site de instalação, você será redirecionado para a tela a seguir. Clicar em **Octave Wiki**:



GNU/Linux

Packaged versions of Octave for GNU/Linux systems are provided by the individual distributions described in the [Octave wiki](#). These packages are created by volunteers. The delay between an Octave source release and the availability of a package for a particular GNU/Linux distribution varies.

Alternatively, there are some distribution independent installation methods for more recent versions of GNU Octave described in the [Octave wiki](#).

macOS

The [Octave Wiki](#) has instructions for installing Octave on macOS systems. Octave is also available in third-party package managers such as [Homebrew](#) and [MacPorts](#).



BSD

Executable versions of Octave for BSD systems are provided by the individual distributions. Both [FreeBSD](#) and [OpenBSD](#) have Octave packages. These packages are created by volunteers and the Octave project has no control over that process.



Instalação no S.O. macOS

Em sistemas operacionais macOS, o GNU Octave pode ser instalado por duas diferentes maneiras:

- macOS App Bundles;
- macOS package managers (gerenciadores de pacotes).

Primeiramente, será vista a instalação via **macOS App Bundles**.

Posteriormente, será exibida uma outra forma de instalação via **macOS package managers** (por meio do gerenciador de pacotes macOS).



Instalação no S.O. macOS via App - Versão 4.0.3

Clicar no link indicado pela seta e realizar o download do instalador hospedado no **SourceForge**.

The screenshot shows a Wikipedia-style page for "Octave for macOS". The left sidebar contains links for Main page, Install, Packages, Development, FAQ, Wiki, Recent changes, Random page, Index, Help, Tools, What links here, Related changes, and Special pages. A red arrow points from the "Related changes" link towards the "macOS App Bundle" section. The main content area has tabs for Page and Discussion. Below the tabs are buttons for Read, Edit, View history, and Search Octave. The search bar contains "Search Octave" and a magnifying glass icon. The page title is "Octave for macOS". Below the title, it says "On macOS systems GNU Octave can be installed by:" followed by two numbered options: "1. macOS App Bundles *Octave.app* (a single [dmg-file](#))" and "2. macOS package managers.". A blue callout box highlights "GNU Octave 6.2.0 is the current stable release.". The "macOS App Bundles" section includes a link to "The Octave.app project" which provides an unofficial ready-to-use macOS App Bundle installer based on Homebrew. It lists "Download installer from GitHub" and "A very old installer is hosted on SourceForge.", with the latter being the target of the red arrow. To the right, there is a "Contents [hide]" sidebar with sections for macOS App Bundles, Package Managers (Homebrew, MacPorts, Spack), Create a launcher app with AppleScript, See also, and Footnotes.

*Picture obtained from https://wiki.octave.org/Octave_for_macOS.

Instalação no S.O. macOS via App - Versão 4.0.3

Você será redirecionado para a página do **SourceForge** que contém o arquivo a ser baixado. Aguardar até que o download seja finalizado.

The screenshot shows the SourceForge homepage with a navigation bar at the top. Below it, the Octave Forge project page is displayed. The page title is "Octave Forge". It features a logo consisting of three interlocking circles in blue, orange, and white. A sub-header states: "A collection of packages providing extra functionality for GNU Octave". Below this, it says "Brought to you by: adb014, carandraug, hauberg, i7trol, and 4 others". A green button at the bottom left says "Your download will start shortly...". To the right, there is a "Mirror Provided by" section featuring the "megalink internet" logo, which includes a stylized green and blue square icon. At the bottom of the page, there is a note about malware scanning: "octave_gui_403_appleblas.dmg | Scanned for malware ✓".

*Picture obtained from https://sourceforge.net/projects/octave/files/Octave%20MacOSX%20Binary/2016-07-11-binary-octave-4.0.3/octave_gui_403_appleblas.dmg/download.



Instalação no S.O. macOS via App - Versão 4.0.3

Lembrando que este instalador é compatível com as seguintes versões do mac (OS X 10.9+). Para consultar a versão do seu dispositivo, clicar em: **símbolo da apple → Sobre Este Mac.**
Um exemplo pode ser visto na figura à direita.



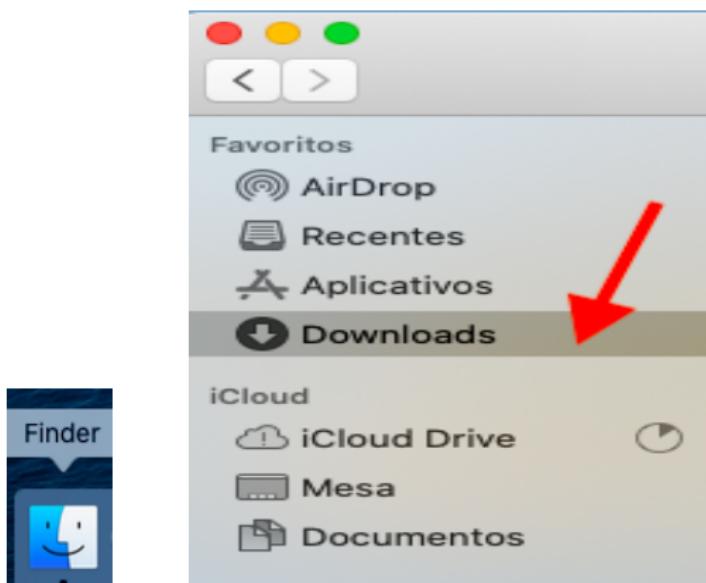
macOS Catalina
Versão 10.15.6



Instalação no S.O. macOS via App - Versão 4.0.3

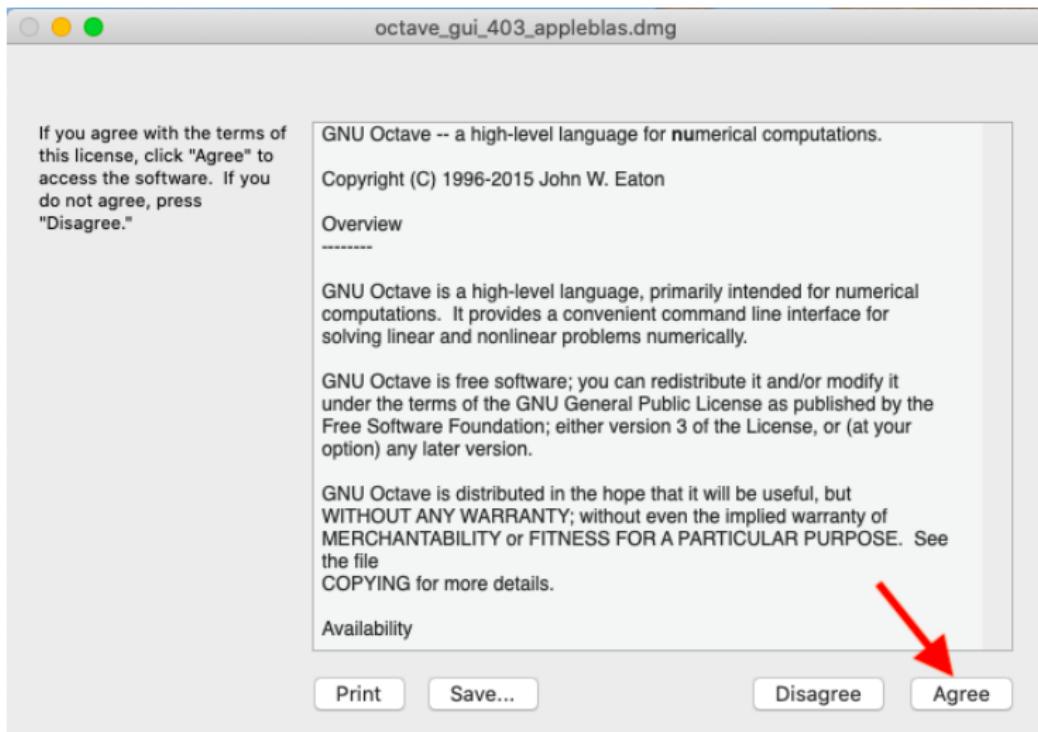
Na pasta Downloads, realizar duplo clique no arquivo:
[octave_gui_403_appleblas.dmg](#).

Para chegar até Downloads, clicar em: **Finder → Downloads**.



Instalação no S.O. macOS via App - Versão 4.0.3

Clicar no botão **Agree**.



Instalação no S.O. macOS via App - Versão 4.0.3

Aguardar a abertura do arquivo:

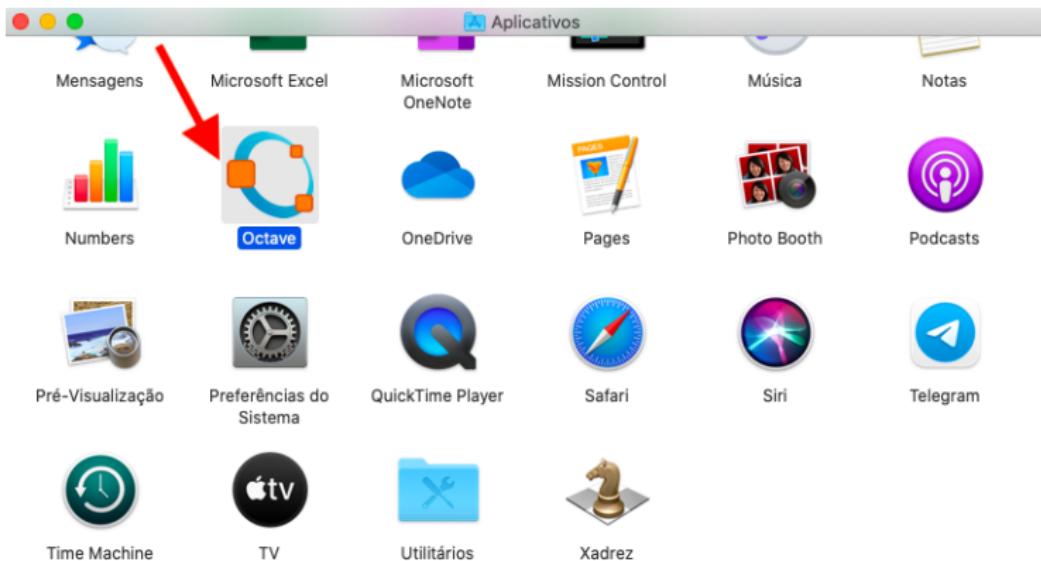


O atalho na área de trabalho será criado e exibida a tela do [Octave Installer](#). Arrastar o (**Octave**) para a pasta (**Applications**) – No sentido indicado pela seta em laranja;



Instalação no S.O. macOS via App - Versão 4.0.3

Verificar se o **Octave** foi incluído em seus aplicativos.



Instalação no S.O. macOS via App - Versão 4.0.3

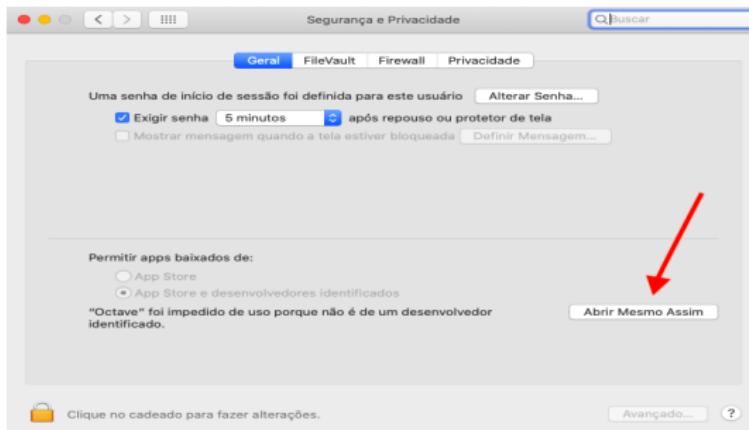
Clicar duas vezes no atalho do **Octave** na área de trabalho. Como o desenvolvedor não é verificado, abrirá uma caixa de diálogo informando: "Octave" não pode ser aberto porque o desenvolvedor não foi verificado.

Ir em: **Preferências do Sistema**. → **Segurança e Privacidade**



Instalação no S.O. macOS via App - Versão 4.0.3

Clicar no box Abrir Mesmo Assim:



Em seguida, clicar em **Abrir**:



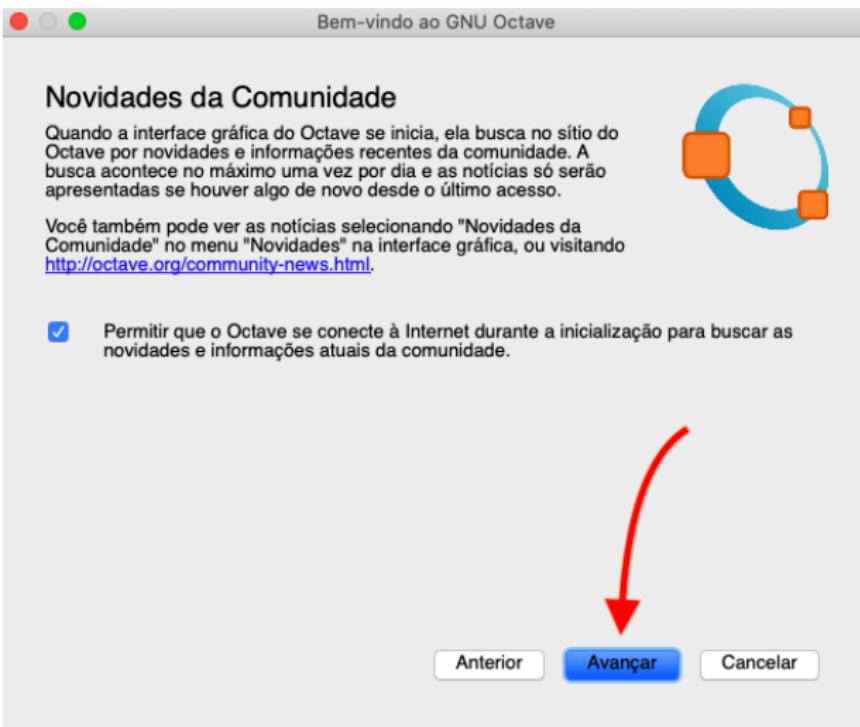
Instalação no S.O. macOS via App - Versão 4.0.3

A tela de boas vindas da **GNU Octave** será exibida. Clicar em **Avançar**.



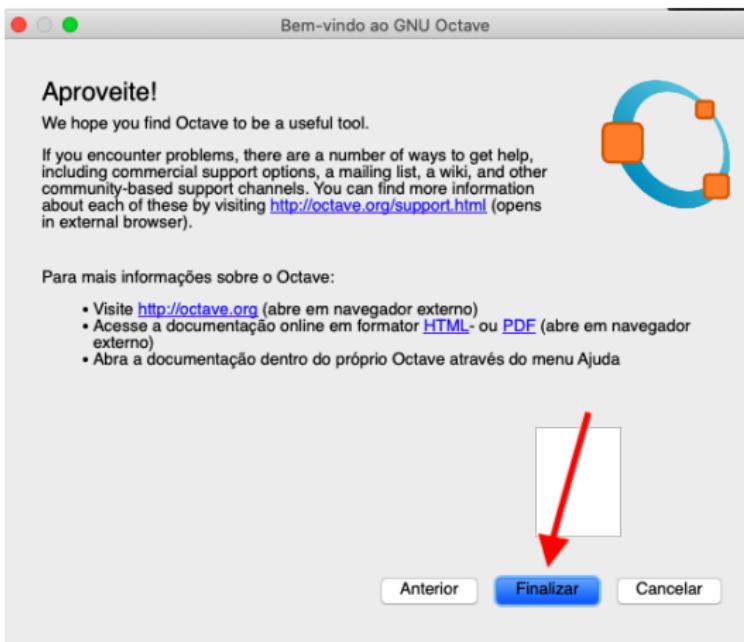
Instalação no S.O. macOS via App - Versão 4.0.3

Clicar em **Avançar**.



Instalação no S.O. macOS via App - Versão 4.0.3

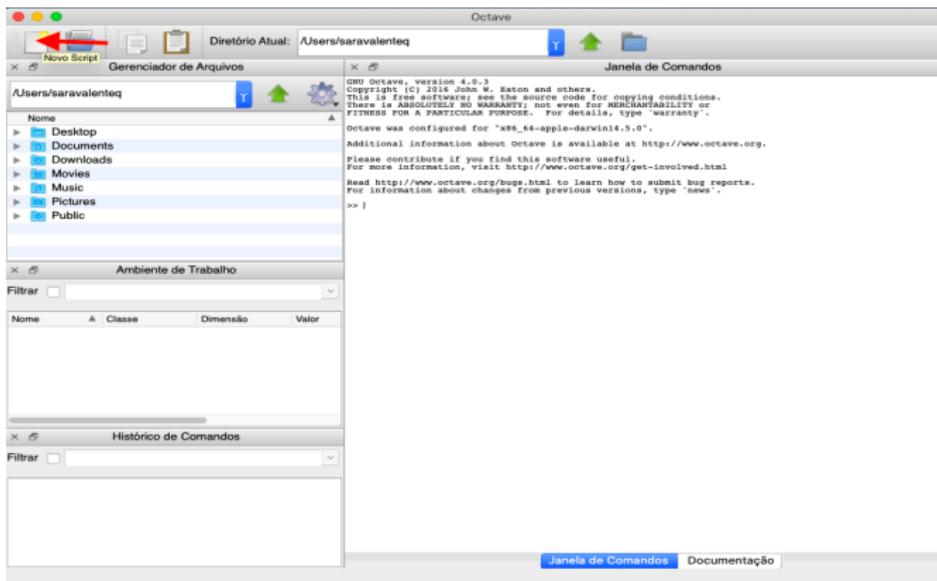
Clicar em **Finalizar**:



GNU Octave instalado com sucesso! =)

Criando um arquivo

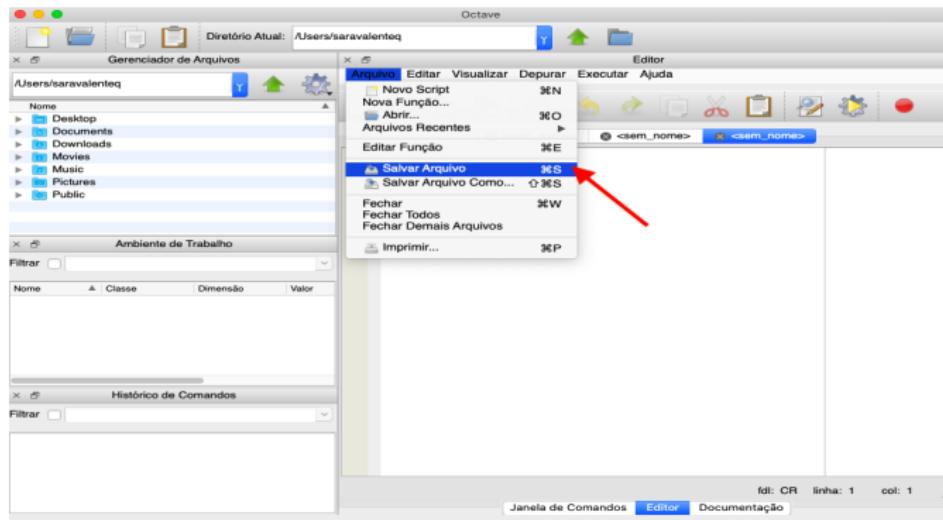
Clicar duas vezes no atalho do **Octave** para abrí-lo. Para criar um **Novo Script** e escrever o código, clicar no documento em branco indicado pela seta.



Salvando um arquivo

Para salvar um arquivo, no editor, ir em: **Arquivo → Salvar Arquivo** ou através do atalho no teclado: **Command + S**;

Para salvar o arquivo como, ir no editor, ir em: **Arquivo → Salvar Arquivo Como...** ou através do atalho no teclado: **Caps lock + Command + S**.



Instalação no S.O. macOS via macOS Package Managers

Instalar o GNU Octave no macOS através dos gerenciadores de pacotes também é uma possibilidade!

Acessar o link disponível em: https://wiki.octave.org/Octave_for_macOS. Clicar em **Homebrew**.

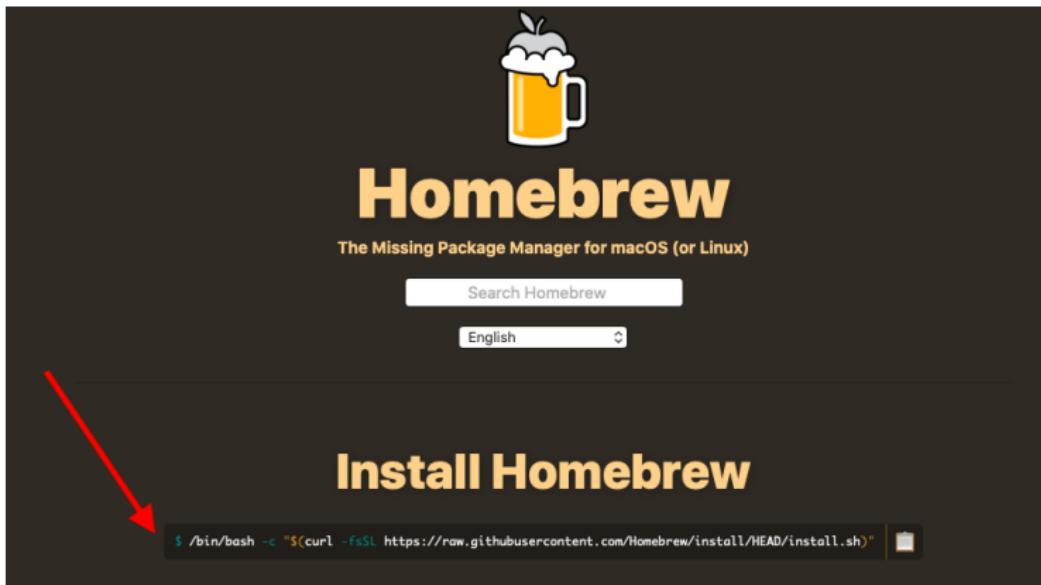
The screenshot shows the "Octave for macOS" page on the Octave wiki. On the left is a sidebar with links like Main page, Install, Packages, Development, FAQ, Wiki, Recent changes, Random page, Index, Help, Tools, What links here, Related changes, Special pages, Printable version, Permanent link, and Page information. The main content area has a header "Octave for macOS". Below it, a note says "On macOS systems GNU Octave can be installed by:" followed by two options: "macOS App Bundles" and "macOS package managers". A callout box highlights "GNU Octave 6.2.0 is the current stable release". Under "macOS App Bundles", it says "The Octave.app project provides an unofficial ready-to-use macOS App Bundle installer based on Homebrew (see below)." It lists "Download installer from GitHub" and "A very old installer is hosted on SourceForge." under "macOS App Bundle of Octave 4.0.3 (with GUI)" (OS X 10.9+). Under "Package Managers", it says "All package managers below are given in alphabetical order. The Octave developers do not recommend a certain package manager." The "Homebrew" section is described as "→ Link to Octave package there." and "Homebrew was written 2009 by Max Howell and has gained popularity in the Ruby on Rails community and earned praise for its extensibility." A red arrow points to the "Homebrew" text.

*Picture obtained from https://wiki.octave.org/Octave_for_macOS.



Instalação no S.O. macOS via macOS Package Managers

Copiar o link que encontra-se abaixo de **Install Homebrew**, indicado pela seta vermelha da figura abaixo, e colar no terminal do seu dispositivo.

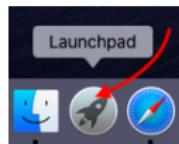


*Picture obtained from <https://formulae.brew.sh/formula/octave>.

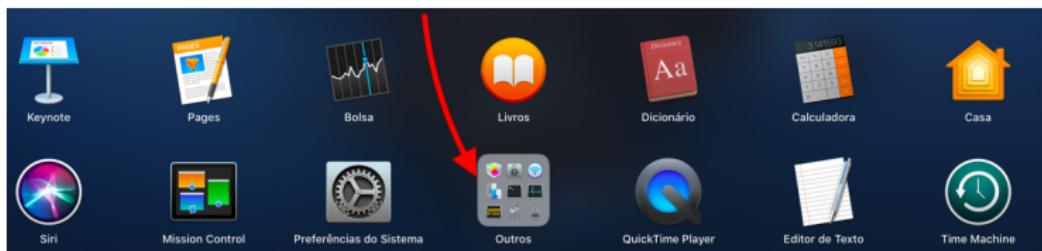
Instalação no S.O. macOS via macOS Package Managers

Agora, será necessário abrir o terminal de seu MacBook. Abrí-lo é um processo bem simples!

Primeiramente, clicar em **Launchpad**, localizado na barra de aplicações e atalhos:



Clicar em **Outros**:



Instalação no S.O. macOS via macOS Package Managers

Clicar em **Terminal**:



Pronto! Você agora está na tela do terminal do seu dispositivo.

```
saravalenteq — zsh — 80x24
Last login: Mon Mar  1 06:39:52 on console
saravalenteq@MacBook-Air-de-Sara ~ %
```

Instalação no S.O. macOS via macOS Package Managers

Após colar o link no terminal do seu dispositivo, clicar na tecla **enter/return**.

Colocar sua senha de login do seu dispositivo e pressionar a tecla **enter/return** e aguardar até completar a instalação:

```
saravalenteq — bash -c #!/bin/bash\012set -u\012\012# Check if script is run n...
Last login: Sat Feb 27 00:12:05 on ttys000
saravalenteq@MacBook-Air-de-Sara ~ %
#!/bin/bash -c "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/HEAD/install.sh)"
==> Checking for `sudo` access (which may request your password).
>Password:
Sorry, try again.
>Password:
==> This script will install:
/usr/local/bin/brew
/usr/local/share/doc/homebrew
/usr/local/share/man/man1/brew.1
/usr/local/share/zsh/site-functions/_brew
/usr/local/etc/bash_completion.d/brew
/usr/local/Homebrew
==> The following new directories will be created:
/usr/local/bin
/usr/local/etc
/usr/local/include
/usr/local/lib
/usr/local/sbin
/usr/local/share
/usr/local/var
/usr/local/opt
```



Instalação no S.O. macOS via macOS Package Managers

As ferramentas de linha de comando Xcode serão instaladas.
Pressionar a tecla **enter/return** para continuar.

```
[● ○ ● ○] saravalenteq — bash -c #!/bin/bash\012set -u\012\012# Check if script is run n
/usr/local/share/man/man1/brew.1
/usr/local/share/zsh/site-functions/_brew
/usr/local/etc/bash_completion.d/brew
/usr/local/Homebrew
==> The following new directories will be created:
/usr/local/bin
/usr/local/etc
/usr/local/include
/usr/local/lib
/usr/local/sbin
/usr/local/share
/usr/local/var
/usr/local/opt
/usr/local/share/zsh
/usr/local/share/zsh/site-functions
/usr/local/var/homebrew
/usr/local/var/homebrew/linked
/usr/local/Cellar
/usr/local/Caskroom
/usr/local/Frameworks
==> The Xcode Command Line Tools will be installed.

Press RETURN to continue or any other key to abort
```



Instalação no S.O. macOS via macOS Package Managers

Aguardar até a instalação ser completada. No terminal, você será informado quando isto ocorrer.

```
saravalenteq — zsh — 80x24
Resolving deltas: 100% (625022/625022), done.
From https://github.com/Homebrew/homebrew-core
 * [new branch]      master      -> origin/master
Updating files: 100% (5777/5777), done.
HEAD is now at 4828caa4d7 or-tools: fix test
==> Downloading https://homebrew.bintray.com/bottles-portable-ruby/portable-ruby-2.6.3_2.yosemite.bottle.tar.gz
#####
==> Pouring portable-ruby-2.6.3_2.yosemite.bottle.tar.gz
#####
==> Installation successful!
#####
==> Homebrew has enabled anonymous aggregate formulae and cask analytics.
Read the analytics documentation (and how to opt-out) here:
https://docs.brew.sh/Analytics
No analytics data has been sent yet (or will be during this `install` run).
==> Homebrew is run entirely by unpaid volunteers. Please consider donating:
https://github.com/Homebrew/brew#donations
==> Next steps:
- Run `brew help` to get started
- Further documentation:
https://docs.brew.sh
saravalenteq@MacBook-Air-de-Sara ~ %
```



Instalação no S.O. macOS via macOS Package Managers

Digitar no terminal **brew help** e pressionar a tecla **enter/return**.

Em seguida, digitar no terminal **brew update** e pressionar a tecla **enter/return**. (Isso para se certificar que as definições são as mais atuais!).

```
● ● ● saravaleteq — zsh — 80x24
==> Installation successful!

==> Homebrew has enabled anonymous aggregate formulae and cask analytics.
Read the analytics documentation (and how to opt-out) here:
https://docs.brew.sh/Analytics
No analytics data has been sent yet (or will be during this `install` run).

==> Homebrew is run entirely by unpaid volunteers. Please consider donating:
https://github.com/Homebrew/brew#donations

==> Next steps:
- Run `brew help` to get started
- Further documentation:
  https://docs.brew.sh
saravaleteq@MacBook-Air-de-Sara ~ % brew help
Example usage:
brew search [TEXT|/REGEX/]
brew info [FORMULA...]
brew install FORMULA...
brew update
brew upgrade [FORMULA...]
brew uninstall FORMULA...
brew list [FORMULA...]
```

Instalação no S.O. macOS via macOS Package Managers

Para instalar o **Octave**, digitar **brew install octave** e pressionar a tecla **enter/return**.

Aguardar a instalação completa do Octave. Demora um pouco, não estranhar!

Pronto! =) **GNU Octave** instalado com sucesso na **versão 6.2.0**.

```
saravaleteq — octave-gui — 80x24
because macOS already provides this software and installing another version in
parallel can cause all kinds of trouble.

If you need to have texinfo first in your PATH, run:
echo 'export PATH="/usr/local/opt/texinfo/bin:$PATH"' >> ~/.zshrc

[saravaleteq@MacBook-Air-de-Sara ~ % octave
GNU Octave, version 6.2.0 ←
Copyright (C) 2021 The Octave Project Developers.
This is free software; see the source code for copying conditions.
There is ABSOLUTELY NO WARRANTY; not even for MERCHANTABILITY or
FITNESS FOR A PARTICULAR PURPOSE. For details, type 'warranty'.

Octave was configured for "x86_64-apple-darwin19.6.0".

Additional information about Octave is available at https://www.gnu.org.

Please contribute if you find this software useful.
For more information, visit https://www.gnu.org/get-involved.html

Read https://www.gnu.org/bugs.html to learn how to submit bug reports.
For information about changes from previous versions, type 'news'.


octave:1> ]
```

Execução do Script pelo terminal no macOS

Abrir o terminal, conforme exibido nos slides 45 e 46. No **prompt de comando**, digitar o comando **octave**. Criar uma pasta em sua área de trabalho para salvar os scripts. A pasta é criada digitando-se **mkdir + nome da pasta**.

Digitar o comando **ls** para listar as pastas existentes. Neste exemplo, foi criado a pasta **calcNum**:

```
saravaleteq — octave-gui — 80x24
saravaleteq@MacBook-Air-de-Sara ~ % octave
GNU Octave, version 6.2.0
Copyright (C) 2021 The Octave Project Developers.
This is free software; see the source code for copying conditions.
There is ABSOLUTELY NO WARRANTY; not even for MERCHANTABILITY or
FITNESS FOR A PARTICULAR PURPOSE. For details, type 'warranty'.

Octave was configured for "x86_64-apple-darwin19.6.0".

Additional information about Octave is available at https://www.octave.org.

Please contribute if you find this software useful.
For more information, visit https://www.octave.org/get-involved.html

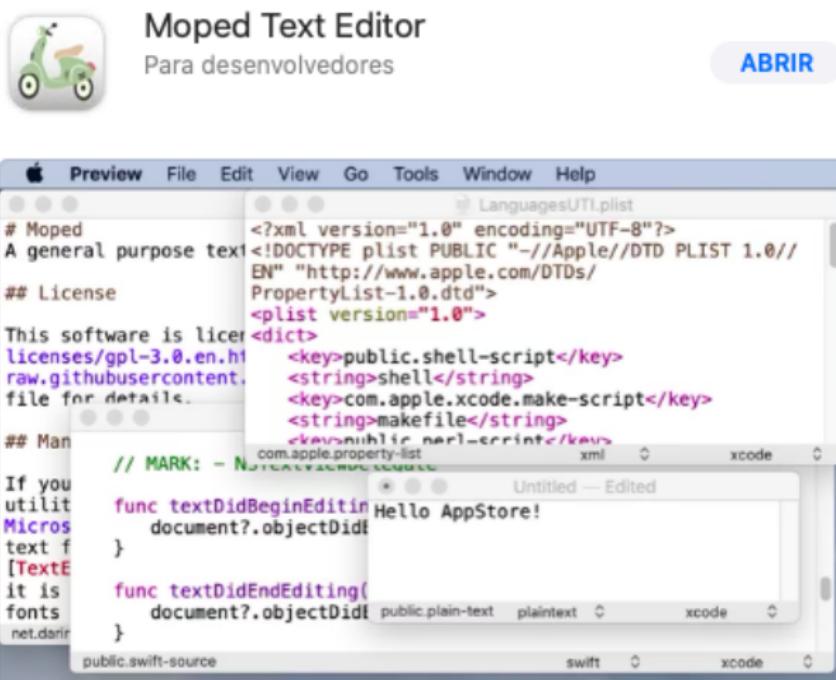
Read https://www.octave.org/bugs.html to learn how to submit bug reports.
For information about changes from previous versions, type 'news'.

octave:1> mkdir calcNum
octave:2> ls
Applications           Library          Public
Desktop                Movies           calcNum
Documents              Music            calculo
Downloads              Pictures          octave-workspace
octave:3> 
```



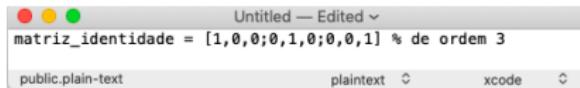
Execução do Script pelo terminal no macOS

Instalar em seu MacBook, através do App Store, um aplicativo editor de texto. Uma sugestão é o aplicativo gratuito **Moped Text Editor**.



Execução do Script através do terminal do macOS

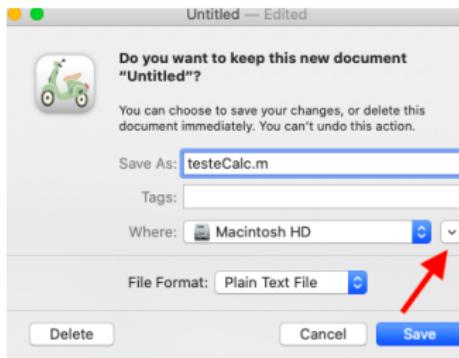
Criar o script, com o código de interesse, na linguagem de programação **Octave**, como o exemplo abaixo:



```
Untitled — Edited
matriz_identidade = [1,0,0;0,1,0;0,0,1] % de ordem 3
public.plain-text plaintext xcode
```

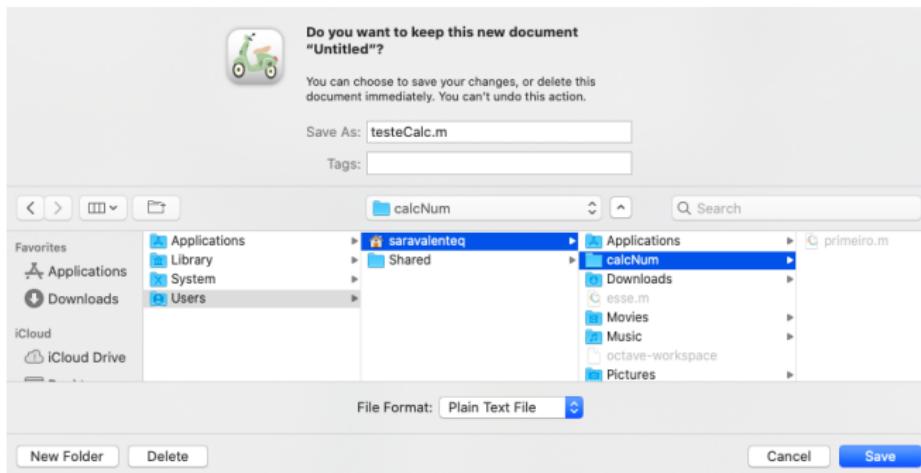
Clicar no botão **vermelho superior à esquerda** (da imagem acima), como se fosse fechar o arquivo.

Em salvar como, digitar o nome do arquivo incluindo a extensão **.m** e clicar no local indicado pela seta em vermelho.



Execução do Script pelo terminal no macOS

Salvar o script na pasta criada anteriormente. No exemplo citado no slide 51, a pasta criada foi a **calcNum**.



Execução do Script pelo terminal no macOS

No **prompt de comando**, no ambiente **octave**, digitar **cd** para ser levado ao diretório inicial. Posteriormente, digitar **ls** e serão listadas as pastas existentes. Para entrar na pasta criada (no exemplo, **calcNum**), digitar **cd + nome da pasta**.

Finalmente, o script (no exemplo, chamado de **testeCalc.m**) poderá ser executado digitando-se **run + nome do script**.

```
calcNum — octave-gui — 80x24

Please contribute if you find this software useful.
For more information, visit https://www.octave.org/get-involved.html

Read https://www.octave.org/bugs.html to learn how to submit bug reports.
For information about changes from previous versions, type 'news'.

[octave:1> cd
[octave:2> ls
Applications           Library                   Public
Desktop                Movies                    calcNum
Documents               Music                    calculo
Downloads              Pictures                 octave-workspace
[octave:3> cd calcNum
[octave:4> ls
testeCalc.m
[octave:5> run testeCalc.m
matriz_identidade =
1   0   0
0   1   0
0   0   1

octave:6>
```

