## **Google Sheets Reference & Cheat Sheet**

The unofficial reference for Google's free spreadsheet program

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Sold to

## Google Sheets — https://sheets.google.com

## Overview: Main Google Sheets Window

Menu. The icon that looks like three Search. Find Google Sheets and Microsoft Excel documents. For advanced search, use the Google bars lets you switch to Drive, Docs, or Slides, or access Settings. Drive search feature (drive.google.com). Google Sheets Recent spreadsheets Owned by anyone Slides c2 age risk factor for C diff campaigns (15).csv Lean Media university ma... Help & Feedback B 25 Opened 7:40 PM Opened Aug 15, 2017 Opened Aug 14, 2017

**List view/Grid view.** Switches between thumbnails of the spreadsheets stored in your account, and a list of titles.



AZ button. Changes how the view is sorted (for instance, By title or Last modified).



**Open file picker.** The folder icon lets users search for files and upload Excel spreadsheets, .csv files, and other data formats.

The main screen shows files created in Google Sheets (denoted by a small grid icon), as well as uploaded Microsoft Excel documents (denoted by a green "X"). To return to this screen, click or tap the green icon above an open document. The Chrome browser supports all of the features listed below.

Owned by. Display documents created/owned by you, or those created by others.

Plus icon. The large "+" icon at the bottom of the screen creates a new Google Sheets spreadsheet.

More options. The icon that looks like three dots is the *More actions* icon, which displays the following commands:

- Rename
- Remove
- Open in new tab

#### How to ...

## How to create a new spreadsheet in Sheets

**From Google Sheets.** Use a blank invoice, time sheet, or other template from the *Template Gallery* at the top of the screen.

From Google Sheets. Click the "+" icon.

**From Google Drive.** Click the *New* button on the left side of the screen, and select *Google Sheets*.

## How to rename an open spreadsheet

From an open document (Google Sheets format only):

- 1. Click the spreadsheet name at the top of the screen (default is "Untitled" for new spreadsheets).
- 2. Or, select File > Rename.

## How to save, close, or copy a spreadsheet

- Google Sheets and Microsoft Excel documents are automatically saved as you type.
- File > Make a copy creates an identical version of the current document, and prompts you to give it a new name.
- To close the document, click the green **Sheets icon** in the upper left corner, or close the browser tab.

## How to edit Excel spreadsheets while offline

Chromebooks and the Google Sheets mobile app can edit Excel spreadsheets directly, but users of the Chrome browser will need to download a special extension to activate Offline Compatibility Mode.

## How to edit spreadsheets while offline

Chromebooks include offline editing right out of the box. For PC/Mac users, the Google Chrome browser is required:

- 1. While Chrome is connected to the Internet, open Google Drive, click the settings icon (the gear icon in the upper right corner) and select *Settings*.
- 2. Make sure the *Offline* checkbox is selected.

To access files, open visit drive.google.com in Chrome.

# How to import .xls, .xlsx, .csv, .tsv, and .txt files Google Sheets:

- 1. Select the folder icon to open the file picker. Click *Upload*.
- **2.** Drag a file to the pop-up window or click *Select a file from your computer.*

#### From within an open spreadsheet:

- 1. Select *File* > *Import*.
- 2. Locate the file to be imported in Sheets, or select *Upload*.
- **3.** Under *Import action*, select option to replace, insert, or append and click *Import*.

#### How to export .xlsx, .csv, PDF, or other formats

- 1. Open the spreadsheet in Google Sheets and select *File* > *Download as* to see the available options.
- **2.** Options include .xlsx (Excel), OpenDocument (.ods), PDF, text, .csv (comma-separated values), .tsv (tab-separated values) and HTML.

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## Formatting, Functions, and Formulas

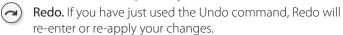
#### Format numbers and cells using the Sheets toolbar

Use buttons to bold or align the contents of a cell, or increase the text size. Numbers can be formatted, converted, or used in functions.





**Undo.** Reverts recent typing, formatting, pasting, and deletions. This is a quick way to undo mistakes.



Paint format. Copies formatting from selected cells to other cells.

**\$** Format as dollars. Instantly formats a number in U.S. dollars. To select another currency, go to Format > More formats > More currencies or use the More currencies option under the 123 button.

(%) %. Instantly converts the data to a percentage.

Decrease decimal places. Reduces the decimal places shown by rounding up.

Increase decimal places. Increases the decimal places shown.

123. Selects other formats, including rounding up to the nearest whole number.

Scientific.Example: -1000 rendered as -1.00E+03

• Financial. Example: –1000 rendered as (1,000)

Dates and Times.

Fonts. Choose from serif, sans serif, and special fonts.

Number	1,000.12
Percent	10.12%
Scientific	1.01E+03
Financial	(1,000.12)
Currency	\$1,000.12
Date	9/26/2008
Time	3:59:00 PM
Date time	9/26/2008 15:59:00
Duration	24:01:00

(10) Font size.

Font decoration. Bold/italics/strikethrough can be activated with buttons. Change the text/highlight color via the underlined *A* icon.

Fill color. The paint bucket icon can change the background color of a cell.

Borders. The grid icon can add lines to the edge of an individual cell or selection of cells.

Merge cells. Merge two or more selected cells.

Horizontal align. Align contents left, right, or center.

**1 Vertical align.** Top, middle, or bottom.

Text-wrapping. Text or data can extend beyond the right border of a cell, or can wrap to a second line.

Link. The chain icon lets you apply URLs to selected text.

**E** Comment. Attaches a comment to selected text.

Insert chart. Select a group of cells to create a chart.

Filter. Restrict the values shown in a selected column.

Functions. Use the Sigma icon to apply functions such as SUM, AVERAGE, and COUNT to selected cells.

Formula bar. Enter or display data, formulas, and functions for the selected cell.

## **Examples:** Basic formulas

All formulas and functions entered into a cell or the formula bar have to start with an equal sign ("="), and can use numerical values or cell references such as A1, B4, or RA42. All formulas follow the PEMDAS (parentheses, exponents, multiplication, division, addition, subtraction) order of operations.

- =A1 tells Sheets to display the value of cell A1.
- =2+3 displays the value 5.
- =2\*3 multiples 2 and 3 and displays 6.
- $=2^3$  is  $2^3$ , or 2 times 2 times 2. The result shown is 8.
- $=8^{(1/3)}$  displays the cube root of 8, which returns a value of 2.
- =2/3 is the same as 2 divided by 3, and shows .666667.
- =(6+4)/2 is the same as 10 divided by 2. The result is 5.
- =A1/B1 is the same as the value in cell A1 divided by the value in B1. The result is shown in the cell where the formula is typed.

#### **Examples:** Common functions

There are hundreds of available functions. Enter the function into a selected cell or the formula bar. Use *Insert* > *Functions* > *More* to see a complete list.

**AVERAGE** creates an average of a range of values. For instance, =*AVERAGE(B2:D2)* will show the average of the numbers in cells B2, C2, and D2.

**COUNT** tallies the selected cells containing data.

**=COUNT(B1:B8)** would show a value of 8, assuming all 8 cells contain numerical data or text.

MIN or MAX shows the smallest or largest value in a range of cells. =*MIN(A1:A400)* would display the smallest value in a range of 400 cells.

**NOW** shows the current date and time. Use the format =NOW().

**SQRT** displays the square root. =**SQRT(25)** would return a value of 5

**SUM** adds the contents of a range of cells. For instance, =**SUM(A1:A3)** will add the contents of cells A1, A2, and A3.

\$200,000 Mortgage (6% APR)

■ Principal: \$200,000 ■ Interest: \$231,676

#### How to add rows and columns

- New row. Select a cell, then *Insert* > *Row above* or *Row below*.
- New column. Select a cell, and then Insert > Column left or Column right.
- To insert multiple rows or columns, copy a series of blank rows or columns (*Edit* > *Copy*) and then paste as needed (*Edit* > *Paste*).

#### How to remove, clear, or cut data

To delete a row or column, select the row identifier (number) or column identifier (letter). Then:

- 1. Right-click and select *Delete row* or *Delete column*.
- 2. Select *Edit* > *Delete row* or *Delete column*.

To remove the values of individual cells or groups of cells, select a cell or a range of cells and click the Delete button, or select *Edit > Delete values*. Note that formatting (bold, fonts, number formats, etc.) will remain. To only remove formatting, select *Format > Clear formatting*.

- The Cut command removes data and formatting from selected cells:
- Right-click and select Cut.
- Edit > Cut.
- Control-X (Windows/Chromebook) or Command-X (macOS).
- To paste the data elsewhere, right-click and select *Paste*, or use *Edit* > *Paste* or the shortcut keys—*Control-V* (Windows/Chromebook) or *Command-V* (macOS).

## **Example:** Create a series of numbers using Auto-fill

Auto-fill is an easy way to create a series of numbers in a row or column:

- 1. In a new spreadsheet, type "1" in cell A1.
- 2. Type "2" in cell B1.
- **3.** Highlight both cells by dragging across the two cells with your mouse button held down.
- **4.** On the lower right corner of cell B1, you will see a small blue square or dot. Grab it with your mouse, and drag to the right.
- **5.** Cell C1 will show the number 3, cell D1 will show the number 4, etc.

The same feature works for years, months (date or name), and days of the week (date or name). Auto-fill can also generate results for mathematical functions and formulas across many columns.

 $f_{x}$ 

1

2

3

=SUM(A1:A3)

=SUM(A1:A3)

65.2

42

459

## **Example:** Single-column addition

- 1. In column A, type three single-digit numbers in the first three rows (A1, A2, and A3).
- 2. Highlight the cells.
- **3.** Click the Sigma symbol to bring up a list of common math functions.
- 4. Select SUM.
- 5. In the cell A4 (see example), you will see =SUM(A1:A3).

  Sheets is asking, "Show the result for the sum of all numbers between cell A1 and A3?"
- **6.** Press *Return/Enter* to confirm.
- 7. The sum of the three cells is shown in cell A4.
- 8. Alternately, select cell A4 and type =A1+A2+A3.

#### How to hide columns or rows

- 1. Select one or more columns.
- 2. Hover over a column identifier (A, B, C, etc).
- 3. Right-click and select *Hide column(s)*.
- **4.** The same method can be used to hide rows.

## How to create a chart or graph

Sheets can generate simple charts and graphs, including pie charts, bar charts, scatter plots, and more. To make a chart, follow these steps:

- 1. Open a spreadsheet and select a set of data.
- **2.** Press the *Insert chart* button on the Sheets toolbar.
- 3. A pop-up will appear, showing a preview. To change the chart type, use

the drop-down menu below *Chart type* in the *Chart editor* box (*Data* tab).

**4.** Click the *Customize* tab to add titles, change colors and fonts, and make other tweaks.

## How to set the print area

- 1. Select the cells you want to print.
- 2. Select *File* > *Print*. The **Print Settings** window will appear.
- 3. Under the *Print* drop-down menu, choose *Selected cells*.
- 4. Select **Next** and then **Print**

#### Example: Calculate an average

- 1. Use the data from the previous example.
- 2. Highlight cells A1, A2, A3, and A4.
- 3. Click the Sigma symbol, and select AVERAGE.
- 4. In cell A5, you will see = AVERAGE(A1:A4)
- 5. Press Return/Enter to confirm.
- **6.** The average will appear in cell A5.

#### **Example:** Sort and filter data

**Sort** and **Filter** can quickly isolate data in a large spreadsheet. The following example shows how both features work:

- 1. Create a spreadsheet. Label cell A1 "Cats" and cell B1 "Dogs."
- **2.** Below each heading, type 4 different numbers whose value is less than 10. This will create two columns of data.
- **3.** Select cell A1, and press the Filter button on the toolbar, or select *Data* > *Filter*.
- **4.** Press the tiny upside-down triangle next to "Cats" and select *Sort A* → *Z*.
- **5.** The data in column A will be sorted from smallest to largest. Column B will automatically adjust, so the values in each row are preserved.
- **6.** Press the tiny upside-down triangle next to "Dogs" and select *Filter by condition*.
- 7. Click *None*, which will reveal a drop-down menu. Select *Greater than or equal to* and enter 5 in the field below.
- **8.** Press *OK*. Rows containing column B values of 4 or less will be removed, leaving only numbers between 5 and 9.
- **9.** Press the Filter button or select *Data* > *Turn* off filter to return the columns to their original values.

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## **Keyboard Shortcuts**

Note that while all of the listed shortcuts work in the Google Chrome browser, a few may not work in other browsers (Internet Explorer, Firefox, Safari, etc.).

#### Windows/Chromebooks

Control + / — Show all keyboard shortcuts Alt + F — Open file menu Alt + E — Open edit menu Alt + V — Open view menu Alt + I — Open insert menu Alt + T — Open tools menu Alt + O — Format menu Alt + D — Data menu Control + O — Open file Control + P — Print file Control + F — Find text, numbers, or other cell contents Control + H — Find and replace Control + Z — Undo Control + Y — Redo Control + B — Bold cell contents Control + I — Italicize cell contents Control + A — Select all Control + X — Cut selected text, numbers, and formatting Control + C — Copy selected text, numbers, and formatting Control + V — Paste Control + Shift + V — Paste values only Control + Shift + 1 — Format as decimal Control + Shift + 2 — Format as time Control + Shift + 3 — Format as date Control + Shift + 4 — Format as currency Control + Shift + 5 — Format as percentage Control + Shift + 6 — Format as exponent Control + \ — Clear formatting Control + Space — Select column Shift + Space — Select row Home — Move to beginning of row Control + Home — Move to beginning of sheet End — Move to end of row Control + End — Move to end of sheet Control + Backspace — Scroll to active cell Control + Shift + Page Down — Move to next sheet Control + Shift + Page Up — Move to previous sheet Alt + Shift + K — Display list of sheets Shift + F11 — Insert new sheet

#### macOS

**Command** + / — Show all keyboard shortcuts Control + Option + F — Open file menu Control + Option + E — Open edit menu Control + Option + V — Open view menu Control + Option + I — Open insert menu Control + Option + T — Open tools menu Control + Option + O — Format menu Control + Option + D — Data menu Command + O — Open file Command + P — Print file Command + F — Find text, numbers, or other cell contents Command + H — Find and replace Command + Z — Undo Command + Y — Redo Command + B — Bold cell contents Command + I — Italicize cell contents Command + A — Select all Command + X — Cut selected text, numbers, and formatting Command + C — Copy selected text, numbers, and formatting Command + V — Paste Command + Shift + V — Paste values only Command + Shift + 1 — Format as decimal Command + Shift + 2 — Format as time Command + Shift + 3 — Format as date Command + Shift + 4 — Format as currency Command + Shift + 5 — Format as percentage Command + Shift + 6 — Format as exponent Command + \ — Clear formatting Control + Space — Select column Shift + Space — Select row Fn + Left arrow — Move to beginning of row Command + Fn + Left arrow — Move to beginning of sheet Fn + Right arrow — Move to end of row Command + Fn + Right arrow — Move to end of sheet Command + Backspace — Scroll to active cell Command + Shift + Fn + Down arrow — Move to next sheet Command + Shift + Fn + Up arrow — Move to previous sheet Option + Shift + K — Display list of sheets Control + Option + I then S — Insert new sheet Command + Alt + M — Insert/edit comment

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Control + Alt + M — Insert/edit comment