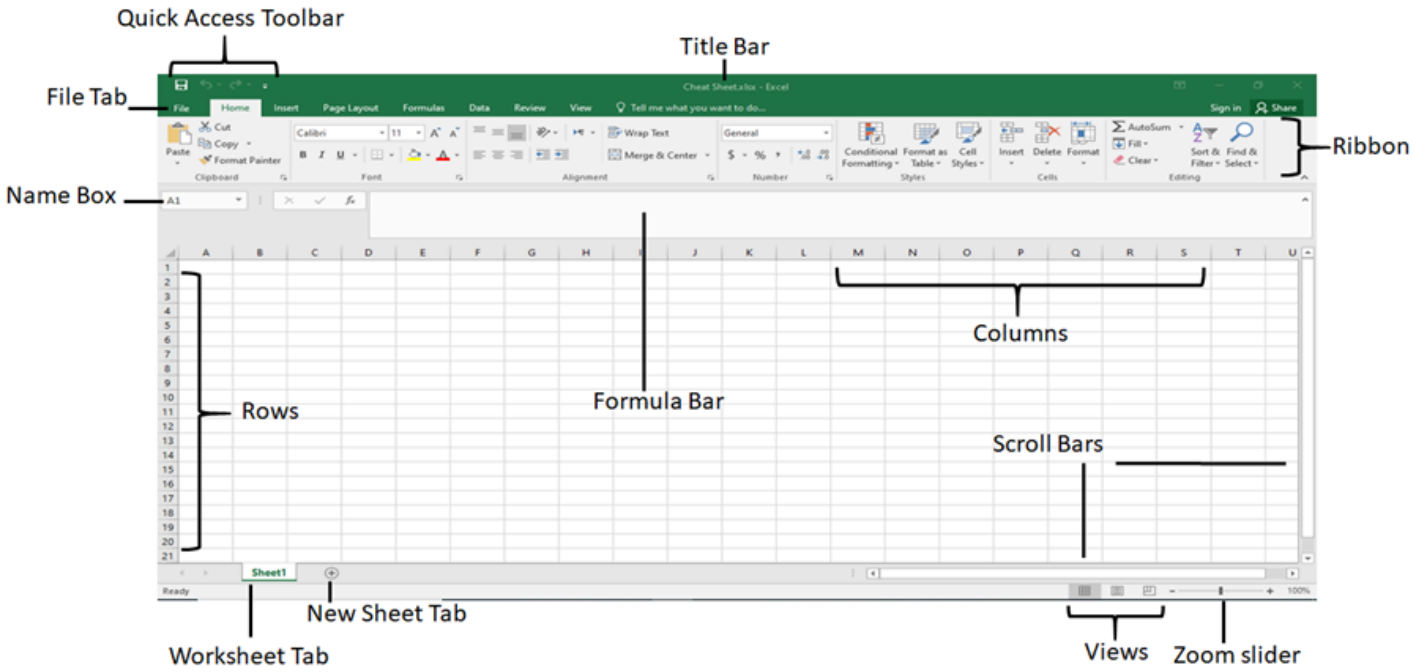
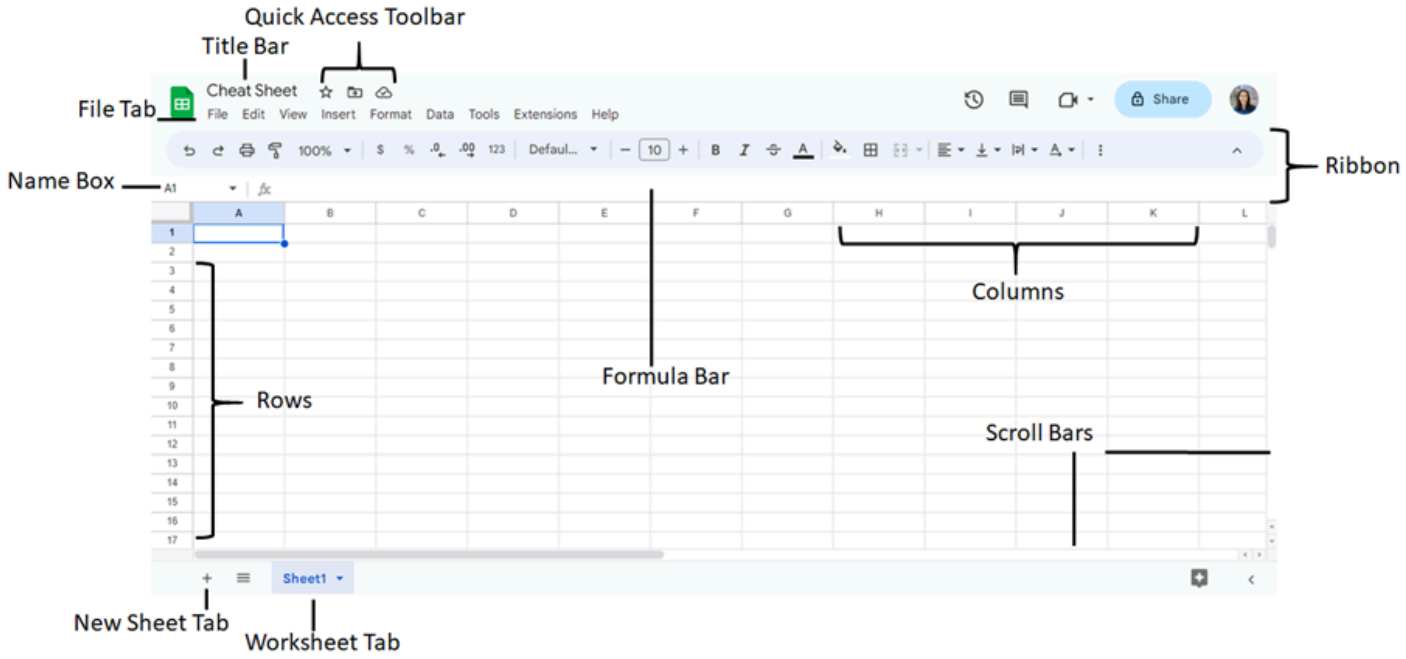
Excel and Sheets - Student Cheatsheet

Excel



Google Sheets



Excel and Sheets - Student Cheatsheet

Glossary

Spreadsheet: An application, like Microsoft Excel, where you can store data, perform calculations, and organize information.

Workbook: A file containing a collection of one or more worksheets.

Worksheet: A single page in a workbook. It is a grid of cells arranged in rows and columns.

Cell: A rectangular box in a worksheet that can store a data value, a formula, or other content.

Formula: A piece of code to perform a calculation. Formulas start with an equals sign (=), and contain **functions**, mathematical **operators, values**, and **cell references**.

Example **functions:** =AVERAGE, =SUM, etc.

Example **operators**: =A2 **+** A3 (Add) =A2 **-** A3 (Subtract) =A2 * A3 (Multiply) =A2 / A3 (Divide)
=B1 ^ C1 (Raise a value to a power "= 10 ^ 5" is the same as "10^5")

Cell reference: The location of a cell. The column is described with letters and the row is described with numbers. For example, the cell in the 4th column, 7th row would be denoted D7.

Cell range: A group of adjacent cells in a worksheet. A cell range is typically referred to by its upper left and lower right cells, such as A1:C3, referring to the cells in columns A, B, and C and rows 1 through 3. You can use cell ranges to perform calculations on multiple cells at once or to apply formatting to a group of cells. For example: =SUM(B2,B5)

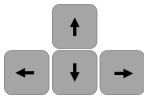
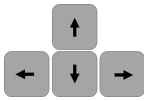
Absolute Cell reference: The **$** symbol before the column letter and/or row number tells Excel that the reference is absolute and should not change when the formula is copied or moved to another cell. For example:

=B2: Column and Row references are both absolute

=$B2: Row reference is relative, Column reference is absolute

=B$2: Row reference is absolute, Column is relative

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Excel vs Sheets shortcut key	"**Ctrl +**" for (Windows, Chrome OS) is the same as "⌘ **+** " for (Mac)
Download the spreadsheet	On your computer, open the Google Docs. At the top, click File and then Download. Choose a file type (for excel choose *.xlsx*), the file will download onto your computer.
Saving the spreadsheet	**Excel:** When you want to save the spreadsheet for the first time: Click File > Save As Under Save As, Click Browse to find the location you want to save your workbook. In the File name box, enter a name for a new workbook. Click Save. When you want to save the spreadsheet after the first time, you can use the save button from the Quick Access Toolbar. **Google Sheets:** When you're online, Google automatically saves your changes as you type. You don't need a save button.
Select a cell	Click on a cell.
Move between cells	Click on a cell and use the arrow button to move around. 
Select a cell range	Click and drag to select a range of cells. (Shift & ) ***when you "select" a range of cells, your mouse pointer should be a white plus cursor:* 
Naming data range	Select the range you want to name, including the row or column labels. Click Formulas > Define Name. In the Define Name box, add a Name which could be used in the formulas later. Click OK. *** Selected name should not include any spaces. Instead use underscores.*
Select the entire worksheet	Ctrl & A (⌘ + A)
Redo	Click on the "Redo" button on the Quick Access Toolbar. (Ctrl & Y) (⌘ + Y)
Undo	Click on the "Undo" button on the Quick Access Toolbar. (Ctrl & Z) (⌘ + Z)

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Cut	Select the cells and click on "Cut" button on the Ribbon. (Ctrl & X) (⌘ + X)
Copy	Select the cells and click on "Copy" button on the Ribbon. (Ctrl & C) (⌘ + C)
Paste	Select the cells and click on "Paste" button on the Ribbon. (Ctrl & V) (⌘ + V). ***This option will paste the format of the copied cell as well. To paste only the values use "Paste Special"*
Paste special (values only)	In Excel - select the cells and click on "Paste" button then click the “Paste special” when it appears in the drop down menu. In Sheets - select the cells then to click (⌘ + shift + V)
Drag a formula from one cell to other cells (using the fill handle)	Select the cell that has the formula you want to fill into adjacent cells. Rest your cursor in the lower-right corner (fill handle) so that it turns into a plus sign (+) Drag the fill handle down, up, or across the cells that you want to fill. When you let go, the formula gets automatically filled to the other cells. 
Find	Click on the "Find & Select" button on the Ribbon. (Ctrl & F)
Clear cells content	Select the cells and click on Delete on the keyboard.
Arithmetic operators	=A2 **+** A3, Add two values with **+** =A4 - B4, Subtract a value from another with - =A6 * B1, Multiply two values with * =C3 / B4, Divide two values with / =B1 ^ C1, Raise a value to power with ^
Numeric Comparisons	**Test for equality with =** =A1 = B1 Returns TRUE, if A1 is equal to B1, FALSE, if A1 is not equal to B1. **Test greater than with >** =A1 > B1 Returns TRUE, if A1 is greater than B1. Returns FALSE, if A1 is not greater than B1. **Test greater than or equal to with >=** =A1 >= B1 Returns TRUE, if A1 is greater than or equal to B1. Returns FALSE, if A1 is not greater than or equal to B1. **Test less than with <**

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	=A1 < B1 Returns TRUE, if A1 is less than B1. Returns FALSE, if A1 is not less than B1. **Test less than or equal to with <=** =A1 <= B1 Returns TRUE, if A1 is less than or equal to B1. Returns FALSE, if A1 is not less than or equal to B1.
Math functions	=MAX(A1:A6, C1:C3), Returns the largest value in specified cells =MIN(A1:A6, C1:C3), Returns the smallest value in specified cells =SUM(A1:A6, C1:C3), Returns the sum of the specified cells =AVERAGE(A1:A6, C1:C3), Returns the mean of the specified cells =MEDIAN(A1:A6, C1:C3), Returns the median of the specified cells =PERCENTILE.INC(C1:C6, 0.25), Returns the 25th percentile of the cell ranges
Type a complicated formula	On the worksheet, click the cell in which you want to enter the formula. Type the “=” (equal sign) followed by the constants and operators that you want to use in the calculation. Press Enter (Windows) or Return (Mac).
Enter the array formula	On the worksheet, click the cell in which you want to enter the formula. Type the “=” (equal sign). Select the range of the first array. Add the operator. Select the range of the second array. Press **Enter** (Windows) or **Return** (Mac).
Logical conditions	Use a logical condition to determine the return value with IF() **=IF(cond, return_if_true, return_if_false)** =IF(ISBLANK(A5), "A5 is blank", "A5 is not blank") Returns "A5 is blank" if A5 is blank, otherwise returns "A5 is not blank"
Conditional formatting	Select the range of cells that you want to apply conditional formatting to. On the Home tab, click Conditional Formatting. (In Sheets go to Format tab) In the Color Scales, choose the 2-color rule.