# Excel Quick Reference

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Excel - Quick Reference

What is Excel?
Microsoft Excel is software that helps you create and format spreadsheets. Use it to collect and calculate data and to create charts as visual representations of that data.

With Excel, you can do calculus in order to build a bridge or you can balance your checkbook – or, more likely, you can maintain your departmental budget or collect and analyze research data. This Quick Reference will walk you through the basics.

Open/Close Excel.
To Open Excel, click the Excel icon, often found in the Systems Tray on the bottom of your screen to the right of the Start button.
If you cannot find the icon, go to Start – All Programs – Microsoft Office – Excel 2010.

To close Excel, click the small box with the x in the upper right hand corner of the Excel screen.

Open a Blank Workbook/Worksheet.

NOTE: A Workbook is the entire file while a Worksheet is one page of a Workbook. You can have multiple worksheets in every Excel Workbook.

1. Open Excel. The default setting opens to a blank workbook.
   - or -

2. Click the green File Tab and then choose Blank Workbook or one of the many pre-formatted templates. Then click Create.

Naming/Renaming a Worksheet.
All Worksheets are entitled “Sheet 1”, “Sheet 2”, etc. by default. Naming a Worksheet can help keep you organized if your Workbook has many pages.

1. Double-click the tab over the current default Worksheet name.
2. Enter a name and click away from the tab. NOTE: Names cannot include spaces.
Navigating in a Worksheet
Excel is based on a number of Cells. Each cell contains one piece of information. Each cell also has a unique address – a letter and a number. The Active Cell is identified by a) identifying the cell with the bold, black border surrounding it and b), by the highlighted letter at the top of the column and the row number to the left. Thus A5, or B12 would be unique cell addresses.

Formatting a Column or Row
1. Click the top of the column (or left end of the row) you wish to format so that the entire area becomes selected
2. From the Home ribbon, make style selections (eg., font size, bold, italics, etc.) from the Font box, justification selections (eg., center, left, right) from the Alignment box and most importantly, the format of the data you will enter in those cells (eg., date/time, text, percentages, currency, decimal places) in the Number box.

Inserting Columns or Rows
1. To insert a column, select the column to the right of where the new column will go and then click Insert on the Home Tab.
2. To insert a row, select the row below where the new row will go and then click Insert on the Home Tab.

Formatting Cells
1. Select the column, row or set of cells to be formatted.
2. From the Home tab, use either the buttons or drop-down box in the Number box. Format selections include currency, date, time, percentage and text as well as general numbers (with as many decimal places as needed).

Data Entry Shortcuts
If you are entering data following a pattern (such as dates, days of the week, months or numbers in sequential order), use the Auto Fill option to save time.
1. At the bottom, right hand corner of the cell where the patterned data begins, click on and begin to drag the cell handle down or to the right for increasing order or up or to the left for decreasing order.
2. If Excel fails to “understand”, begin the sequence, select all cells in the new sequence and then click and drag the cell handle.
Using Formulas

Formulas are the “backbone” of working in Excel. Adding, subtraction, multiplication, division, averages, means and standard deviations are only a few of the many formulas available in Excel. Below are examples of using the “sum” (addition) formula. Use the “Formulas” tab to explore the many other formulas available in Excel.

Notes on effectively using formulas:

1. After becoming familiar with standard formulas, they can be quickly added by hand in the formula box to the right of the $fx$ button. The above formula can be written either as =SUM(B2:B9) or =B2+B3+B4+B5+B6+B7+B8+B9. A colon : in a formula always represents a range, e.g., the sum of cell B2 through B9.
2. A formula must always begin with an equal sign.
3. A formula based on a set of numbers in one location can be placed anywhere on the worksheet. For example, the sum of B4 through B9 can appear in cell B10 OR in H6 or any other appropriate cell.
4. When using the $\Sigma$ button to apply a formula, Excel often attempts to “guess” the range of numbers in which to apply the formula. Double check to make certain that Excel has guessed correctly.
5. When adding new data within a range (for example, following the discovery that a 10 should have been a 9), the formula will automatically recalculate.
6. What if the resolution of a formula is #######? This only means that the column is too narrow to accurately display the answer. Widen the column and the answer will appear.
Using Charts
Charts are a great way to visually present data from a worksheet. Select data you wish to appear in your chart and then choose your chart style on the Insert tab. There are many different chart options: column, bar, pie, line, area and scatter. Just as with the formulas, any changes made to data within the chart range will automatically update the chart.

Making Reports and Printing
Unlike printing a Word document, producing output from an Excel worksheet requires some planning. The most common “difficulties” include horizontal data printing out on multiple pages and column headings not carrying over to subsequent pages of a report.

If you want to print a small portion of a worksheet:
1. Select the range of cells to be printed.
2. Open the Page Layout tab.
3. Choose Print Area and then Set Print Area.
4. Print using the standard print command. Just the portion of the worksheet highlighted will print.

Formatting a print job
1. Using the Page Layout tab, check or uncheck Print Guidelines and/or Print Headings based on preference.
2. Choose Print Titles to turn on repeating column headings and to add headers and footers.