Chapter 1 : Basic Excel Formulas - List of Important Formulas for Beginners

Microsoft Excel Excel Resources Mastering basic Excel formulas is critical for beginners to become proficient in financial analysis. Microsoft Excel is considered the industry standard piece of software in data analysis.

Microsoft Excel is a program that provides worksheets comprised of rows and columns. Data can be stored in the worksheet, also called a spreadsheet, similarly to a Microsoft Word table, but the power of Excel is its ability to perform simple to complex mathematical calculations, and other functions. When you are ready to create some math formulas, see Excel Math Basics. The Excel Worksheet Spreadsheet and Workbook An Excel worksheet, or spreadsheet, is a two-dimensional grid with columns and rows. Look at the spreadsheet below. The column names are letters of the alphabet starting with A, and the rows are numbered chronologically starting with the number one. The cells in the first row are A1, B1, C1, and so on. And the cells in the first column are A1, A2, A3, and so on. These are called cell names or cell references. We use cell references when creating math formulas or functions. For example, the formula to add the contents of cells B2 and B3 together is: In our spreadsheet above, the selected cell is C2. Notice that the column letter C and the row number 2 change color. The beginning of the Formula Bar can be seen in the area above Column D on our worksheet. The Formula Bar displays the contents of the selected cell. A workbook is a collection of worksheets or spreadsheets. When the Excel program is opened, a workbook opens with three blank worksheets. The names of the worksheets are displayed on tabs at the bottom of the Excel window. For more information, see our separate tutorial Excel: Managing Workbooks and Worksheets. How to Move From Cell to Cell The arrow keys can be used to move left, right, up, and down from the current cell. Press the Enter key to move to the cell immediately below the current cell, and press the Tab key to move one cell to the right. How to Select Cells There are a variety of ways to select cells in an Excel spreadsheet: To select one cell, click in the cell. To select one or more rows of cells, click on the row number s. To select one or more columns of cells, click on the column letter s. To select multiple cells that are not contiguous, press and hold the Ctrl key while clicking in the desired cells. To select every cell in the worksheet, click in the upper right corner of the worksheet to the left of "A. What you type also displays in the Formula Bar. When entering dates, Excel defaults to the current year if the year portion of the date is not entered. You may edit cell contents from the Formula bar, or from directly inside the cell. To edit from the Formula Bar, select the cell and click inside the Formula Bar. When done typing, either press the Enter key or click inside another cell. To edit directly inside a cell, either double click inside the cell, or select the cell and press the F2 key. Each cell has a specific format. For example, you may have entered 8. But if the cell was formatted to display only two decimal places, Excel will display 8. However, Excel will still use the real cell value that you entered, 8. For more information, see our separate tutorial on Formatting Cells in Microsoft Excel. How to Propagate Cell Contents There are multiple ways to propagate or fill data from one cell to adjacent cells. To propagate in any direction, use the Fill Handle. If the data to be copied is a date, number, time period, or a custom-made series, the data will be incremented by one instead of just copied when the Fill Handle is used. For example, to display the months of the year in column A, type January in cell A1, drag the Fill Handle down to cell A12, and the months will display, in order, in column A! How to Move and Copy Cell Contents To move cell contents, right-click in the selected cell and click Cut; then right-click in the new location and click Paste. Similarly, to copy cell contents, right-click in the selected cell and select Copy, and paste in the new cell. You can copy the contents of a cell as described above, but paste and fill multiple adjacent cells. Just highlight the block of cells you want to paste in: Still holding the mouse button down, swipe the cursor over to the opposite corner until just the cells you want filled are highlighted. Then right-click and click Paste. To remove the animated border around the original cell, press the ESC key, or start typing in a new cell. How to Add and Delete Rows and Columns To insert a new row in a spreadsheet, right-click on a row number, and click Insert. If you want to continue inserting rows, press the F4 key to insert each additional row. To delete a row, right-click on the row number, and click Delete. Contiguous rows can be deleted by highlighting them before clicking Delete. To insert a new column, right-click on a column letter and click Insert. Excel always inserts

the column to the LEFT of the column that was clicked on. As with rows, if you want to add additional columns after inserting the first column, press the F4 key. To delete a column, right-click on the column letter, and click Delete. Contiguous columns can be deleted by highlighting them before clicking Delete. And non-contiguous columns can be selected by pressing and holding the CTRL key. First, the cell must be locked. Second, the worksheet must be protected. If you have any valuable data or complex formulas that you do not want to lose, and data DOES get accidentally erased! We provide detailed instructions in our separate tutorial, Protecting Worksheet Data in Microsoft Excel. We have a wide variety of beginner tutorials for the Excel user - see Related Tutorials on the sidebar. To make the column wider, place the cursor on the right side of the column heading and drag the column edge to the right until the data displays.

Chapter 2 : How to Type Formulas in Microsoft Excel: 15 Steps (with Pictures)

The tutorial provides a list of Excel basic formulas and functions with examples and links to related in-depth tutorials. Being primarily designed as a spreadsheet program, Microsoft Excel is extremely powerful and versatile when it comes to calculating numbers or solving math and engineering problems.

So, what do we call an Excel formula and Excel function? Formula is an expression that calculates the value of a cell. Function is a predefined formula already available in Excel. Functions perform specific calculations in a particular order based on the specified values, called arguments, or parameters. For example, instead of specifying each value to be summed like in the above formula, you can use the SUM function to add up a range of cells: SUM The first Excel function you should be familiar with is the one that performs the basic arithmetic operation of addition: SUM number1, [number2], â€¦ In the syntax of all Excel functions, an argument enclosed in [square brackets] is optional, other arguments are required. Meaning, your Sum formula should include at least 1 number, reference to a cell or a range of cells. A6 - adds up values in cells A2 through A6. In your Excel worksheets, the formulas may look something similar to this: The fastest way to sum a column or row of numbers is to select a cell next to the numbers you want to sum the cell immediately below the last value in the column or to the right of the last number in the row , and click the AutoSum button on the Home tab, in the Editing group. Excel will insert a SUM formula for you automatically. Excel Sum formula examples - formulas to total a column, rows, only filtered visible cells, or sum across sheets. Excel AutoSum - the fastest way to sum a column or row of numbers. Sums values in cells A2 through A6, and then divides the result by 5. And what do you call adding up a group of numbers and then dividing the sum by the count of those numbers? For our sample data set, the formulas will be as simple as: A To count all non-empty cells in column A, go with this one: A In both formulas, you use the so-called "whole column reference" A: A that refers to all of the cells within column A. The following screenshot shows the difference: In simple terms, you use an IF formula to ask Excel to test a certain condition and return one value or perform one calculation if the condition is met, and another value or calculation if the condition is not met:

Chapter 3 : Basic Excel Formulas

When a formula is entered correctly and the data used in the formula changes, Excel automatically recalculates and updates the answer. This tutorial covers in detail how to create and use formulas and includes a step-by-step example of a basic Excel formula.

Just like a calculator, Excel can add, subtract, multiply, and divide. Download our practice workbook. This is because the cell contains, or is equal to, the formula and the value it calculates. This is known as making a cell reference. Using cell references will ensure that your formulas are always accurate because you can change the value of referenced cells without having to rewrite the formula. Using cell references to recalculate a formula By combining a mathematical operator with cell references, you can create a variety of simple formulas in Excel. Formulas can also include a combination of cell references and numbers, as in the examples below: Examples of simple formulas To create a formula: Select the cell that will contain the formula. Notice how it appears in both the cell and the formula bar. A blue border will appear around the referenced cell. Referencing cell B1 Type the mathematical operator you want to use. Type the cell address of the cell you want to reference second in the formula: A red border will appear around the referenced cell. Referencing cell B2 Press Enter on your keyboard. The formula will be calculated, and the value will be displayed in the cell. The complete formula and calculated value If the result of a formula is too large to be displayed in a cell, it may appear as pound signs instead of a value. This means the column is not wide enough to display the cell content. Simply increase the column width to show the cell content. Modifying values with cell references The true advantage of cell references is that they allow you to update data in your worksheet without having to rewrite formulas. The formula in B3 will automatically recalculate and display the new value in cell B3. To create a formula using the point-and-click method: Rather than typing cell addresses manually, you can point and click on the cells you want to include in your formula. This method can save a lot of time and effort when creating formulas. Select the cell you want to reference first in the formula: The cell address will appear in the formula, and a dashed blue line will appear around the referenced cell. Referencing cell B3 Type the mathematical operator you want to use. Select the cell you want to reference second in the formula: The cell address will appear in the formula, and a dashed red line will appear around the referenced cell. Referencing cell C3 Press Enter on your keyboard. The completed formula and calculated value Formulas can also be copied to adjacent cells with the fill handle, which can save a lot of time and effort if you need to perform the same calculation multiple times in a worksheet. Review our lesson on Relative and Absolute Cell References to learn more. Copying a formula to adjacent cells using the fill handle To edit a formula: Sometimes you may want to modify an existing formula. Select the cell containing the formula you want to edit. Selecting cell B3 Click the formula bar to edit the formula. You can also double-click the cell to view and edit the formula directly within the cell. Selecting a formula to edit A border will appear around any referenced cells. Editing a formula The formula will be updated, and the new value will be displayed in the cell. The newly calculated value If you change your mind, you can press the Esc key on your keyboard to avoid accidentally making changes to your formula. The grave accent key is usually located in the top-left corner of the keyboard. Open an existing Excel workbook. If you want, you can use our practice workbook. Create a simple addition formula using cell references. If you are using the example, create the formula in cell B4 to calculate the total budget. Try modifying the value of a cell referenced in a formula. Notice how the formula in cell B4 recalculates the total. Try using the point-and-click method to create a formula. If you are using the example, create a formula in cell G5 that multiplies the cost of napkins by the quantity needed to calculate the total cost. Edit a formula using the formula bar.

Chapter 4 : How to enter basic formulas and calculations in Excel. Learn Microsoft Excel | Five Minute Less

When you enter a formula in a cell, Excel calculates the result of that formula and displays the result of that calculation to you. In fact, when you enter a formula into any cell, Excel will recalculate the result of all the cells in the worksheet.

Getting Started Excel is a massive application with s of features and s of ribbon menu commands. It is very easy to get lost once you open Excel. So one of the basic survival skills is to understand how to navigate Excel and access the features you are looking for. When you open Excel, this is how it looks. There are 5 important areas in the screen. This is a place where all the important tools can be placed. When you start Excel for the very first time, it has only 3 icons Save, Undo, Redo. But you can add any feature of Excel to to Quick Access Toolbar so that you can easily access it from anywhere hence the name. Ribbon is like an expanded menu. It depicts all the features of Excel in easy to understand form. Since Excel has s of features, they are grouped in to several ribbons. This is where any calculations or formulas you write will appear. You will understand the relevance of it once you start building formulas. Each Excel file can contain several sheets. To see more rows or columns you can use the scroll bars to the left or at bottom. This tells us what is going on with Excel at any time. You can tell if Excel is busy calculating a formula, creating a pivot report or recording a macro by just looking at the status bar. The status bar also shows quick summaries of selected cells count, sum, average, minimum or maximum values. You can change this by right clicking on it and choosing which summaries to show. Excel is quite intuitive and simple to use when it comes to typing data or handling it. Built in features like copy, paste, find, highlight, go to, styles etc.

Chapter 5 : Basic tasks in Excel - Excel

Excel is an incredibly powerful tool for getting meaning out of vast amounts of data. But it also works really well for simple calculations and tracking almost any kind of information. The key for unlocking all that potential is the grid of cells. Cells can contain numbers, text, or formulas. You.

There are many ways to use Excel formulas to decrease the amount of time you spend in Excel and increase the accuracy of your data and your reports. B5 The SUM formula does exactly what you would expect. It allows you to add 2 or more numbers together. You can use cell references as well in this formula. The above shows you different examples. You can have numbers in there separated by commas and it will add them together for you, you can have cell references and as long as there are numbers in those cells it will add them together for you, or you can have a range of cells with a colon in between the 2 cells, and it will add the numbers in all the cells in the range. A10 The count formula counts the number of cells in a range that have numbers in them. This formula only works with numbers though: It only counts the cells where there are numbers. A10 Counts the number of non-empty cells in a range. It counts the number of non-empty cells no matter the data type. Notice the difference in the formula results: The TRIM formula removes that extra space. Check out the character count difference with and without the TRIM formula. RIGHT gives you the number of characters from the right of the text string, LEFT gives you the number of characters from the left, and MID gives you the specified number of characters from the middle of the word. I used the LEFT formula to get the first word. I had it look in cell A1 and grab only the 1st character from the left. I had it look in cell A1, start at character 3, and grab 5 characters after that. I had it look at cell A1 and grab the first 6 characters from the right. The official description of what it does: This makes it a lot easier to make sure the data you are getting back is a correct match. If you put TRUE it will give you the closest match. You have 2 lists: They are all jumbled around so to manually match this, even for a small number of salesmen would leave room for a high margin of error and take a lot of time. The first list goes from A1 to B The 2nd list goes from D1 to E This is a number that appears on both lists. This is called an absolute reference. This tells the formula the number of columns away from the left most column to return in case of match. It starts at 1, not 0. I would then copy and paste that formula along all the cells in column C next to the first list. This is a complicated formula, but an extremely useful one. Check out some other examples: Continuing with the sales example: Now you can use an IF statement that says: It would look like this: We would then copy and paste this formula along all the entries in the list. It would change for each sales person. Having the result right there from the IF statement is a lot easier than manually figuring this out. There are also the formulas: The real power comes in combining these functions into complicated excel formulas. This can be a really intimidating formula even for the most seasoned Excel user.

Chapter 6 : Excel Made Easy: a Beginner's Guide to using Microsoft Excel.

Microsoft Excel gives users the flexibility to configure data and perform very basic operations, such as addition, subtraction, multiplication, or division by using shortcuts or custom formulas. This article will introduce some of the most basic functions and formulas offered by Microsoft Excel.

At its heart, Excel is a giant calculator. In fact, a simple way to think about Excel is to consider each cell in a worksheet like an individual calculator. An Excel spreadsheet has millions of cells, which means you have millions of individual calculators to work with. Not only that, but you can create formulas that link different cells together e. You can create formulas that link cells in different worksheets together. And you can even create formulas that link cells in different workbooks together. How to enter a formula in Excel In Excel, each cell can contain a calculation. In Excel jargon we call this a formula. Each cell can contain one formula. When you enter a formula in a cell, Excel calculates the result of that formula and displays the result of that calculation to you. In fact, when you enter a formula into any cell, Excel will recalculate the result of all the cells in the worksheet. Here are some examples of some simple Excel formulas and their results: In this example, there are four basic formulas: Sometimes Excel will show you a warning rather than just entering your formula. It will usually also give you some indication of what you did wrong. This means that you have entered a formula that was value, but Excel could not calculate a valid result from your formula. When you create a formula, you can refer to other cells using these cell references to incorporate the values in other cells into a formula. The value in another cell might be a simple number, or another cell containing a formula. When you create a formula that refers to another cell that also contains a formula, your formula will use the result of the formula in that other cell. Then, if the result of the formula in that other cell changes, so too does the result in your formula. Here are some examples of some Excel formulas that refer to other cells: In this example, rows build on the earlier examples to link cells together: B6 adds the values in B2 and B3 together. If you change either of the values in B2 or B3 the result in B6 will change too. B7 and B8 subtract and multiply the values in other cells. B9 goes a step further and divides B8 by B3. Note that B8 in turn multiplied B5 and B2 together. So changing the values in either B5 or B2 will have a domino effect, where the value in B8 will change, and so the value in B9 will change too. Note that Excel handles all of this the moment you finish entering a change in either B5 or B2. Creating formulas that refer to cells in other worksheets When you first open Excel, you start with a single worksheet. However, Excel allows you to have more than one worksheet inside a single spreadsheet file known as a workbook. In fact, in earlier versions of Excel a new workbook automatically started out with 3 worksheets inside it. Earlier we saw how to link two cells together within a worksheet by referring to other cells using their cell reference value. Here are some examples of formulas that refer to cells in another worksheet inside the same workbook: In this example, the formulas in B10 and B11 refer to cells in another worksheet called Data. B10 multiples the value in B9 by the value in cell A2 in the worksheet called Data B11 takes the value A4 in the worksheet called Data and divides it by the value in B9. There are a couple of ways to create formulas like this:

Chapter 7 : The Printable Excel Cheat Sheet - College Degree Search

Formulas are the real workhorses of an Excel worksheet. If you set up a formula properly, it computes the correct answer when you enter it into a cell. From then on, it keeps itself up to date, recalculating the results whenever you change any of the values that the formula uses.

Chapter 8 : Excel functions (by category) - Office Support

Bonus tip: With basic formulas, the AutoSum button is the top choice. It's faster to click AutoSum>SUM (notice that Excel highlights the range for you) and press Enter.

Chapter 9 : Excel Formulas: 10 Formulas That Helped Me Keep My Job

Don't waste any more hours in Microsoft Excel doing things manually. There are many ways to use Excel formulas to decrease the amount of time you spend in Excel and increase the accuracy of your data and your reports. The SUM formula does exactly what you would expect. It allows you to add 2 or.