

Formula Bar

Located on the top of the spreadsheet, below the toolbars, the formula bar displays text from the selected cell. If there is a formula in the cell, the formula, not the answer to the formula, is displayed in the formula bar. Clicking on the symbol next to the formula bar will assist you in entering formulas.

B9		=SUM(B2:B8)							
	A	B	C	D	E	F	G	H	
1	YEAR	PRICE							
2	1999	100							
3	2000	110							
4	2001	120							
5	2002	122							
6	2003	127							
7	2004	135							
8									
9	TOTAL:	714							
10									

Formulas

A formula will instruct Excel to automatically do something (add, multiply, average, etc.) to a set of cells. To begin writing a formula in the formula bar, you must first type an equal sign =.

Example formula:

To put the total of cells A3, A4 and A5 into cell A7 you would click in cell A7 and type in the formula bar =A3+A4+A5

Hint: When entering formulas, after you type an equal sign, instead of typing the cell names (A3, A4) click the cell you want to sum.

Simple Formula:

Click the cell in which you want the answer (result of the formula) to appear. Press Enter once you have typed the formula.

All formulas start with an = sign.

Refer to the cell address instead of the value in the cell e.g. =A2+C2 instead of 45+57. That way, if a value changes in a cell, the answer to the formula changes with it.

+ means add	e.g. A2+C2	Add the value (number) in A2 to the value (number) in C2.
- means subtract	e.g. A2-C2	Subtract the value (number) in C2 from the value (number) in A2.
* means multiply	e.g. A2*4	Multiply the value (number) in A2 by 4.
/ means divide	e.g. A2/3	Divide the value (number) in A2 by 3.

Functions:

These formulas are used for working with long lists of numbers. A typical function looks like this:

`=SUM(A3:A30)`

- SUM is a function, meaning that it sums (adds up) the list of numbers.
- The list of numbers is indicated in brackets.
- The address of the first cell in the list is A3.
- A colon : separates this cell address from the last cell in the list, which is A30.

`=SUM(B3:B9)`

Adds list of values from cell B3 to cell B9


	A	B	C
1			
2			
3		23	
4		34	
5		54	
6		45	
7		32	
8		67	
9		34	
10		<code>=SUM(B3:B9)</code>	
11			

`=AVERAGE(B3:B9)`

Averages the values from cell B3 to cell B9

	A	B	C
1			
2			
3		23	
4		34	
5		54	
6		45	
7		32	
8		67	
9		34	
10		<code>=AVERAGE(B3:B9)</code>	
11			

AutoSum


Another way to calculate a sum in Excel is to use the AutoSum button.  Select the cells you wish to add together by clicking on the first cell and dragging your mouse across the other cells. Now click the AutoSum button.

An Electronic Checkbook

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In this exercise you will create a basic checkbook balancing spreadsheet.

Start Excel

1. Start the Excel program.
2. You may need to create a new blank workbook by clicking on the New button  at the far left of the toolbar.

Enter Column Titles

To enter text or numbers, first select a cell using the keyboard arrows or the mouse, then type the letters or numbers. To move to the next cell, the Enter key will move down one cell, the Tab key will move one cell to the right. You can also use the arrow keys to move in any desired direction

1. In cell A1 type *Check #*, and press the right arrow key or Tab key to move to cell B1.
2. In cell B1 type *Date*.
3. In cell C1 type *Description of Transaction*.
4. In cell D1 type *Payment/Debit*.
5. In cell E1 type *Deposit/Credit*.
6. In cell F1 type *Balance*.

Format Column Titles

1. Select the block of cells that have column titles. (Move your mouse pointer to cell A1. Click and hold down the left mouse button. Drag the mouse pointer to cell F1 and let go.)
2. Select Bold by clicking the B button on the toolbar.
3. With the block of cells still selected, click on the Format menu on the Menu bar near the top of your screen.
4. From the drop-down menu, click the word Cells.
5. Choose the Patterns tab and select any light color to fill in the cell backgrounds.
6. Click OK.

Format Data

This is a step you can do before or after entering data. Since we would like to be able to read the column titles clearly, let's do this step first.

1. To make your spreadsheet look more professional, you need to format it.
2. Check to see if the column titles are still selected. If not, reselect them or select the entire columns by clicking and dragging from the Letter A at the top of the first column to the letter F and let go.
3. To resize these columns click on the Format menu. Move down to Column (which has an arrow on its right side, showing you it has options you can choose from) and choose AutoFit Selection from the sub-menu.

Enter Data

1. Select cell A2.
2. Enter the following data:

	A	B	C	D	E	F
1	Check #	Date	Description of Transaction	Payment/ Debit	Deposit/ Credit	Balance
2		5/1	Initial Deposit		200	
3	1001	5/2	Phone bill	45.52		
4	1002	5/5	Groceries	36.6		
5		5/10	Deposit		450	
6	1003	5/15	Rent	400		

NOTE: As you enter the dates, the format will change, and data may not fit the column, turning into something like #####. If this happens, move your mouse between the column identifiers for B and C. When the mouse pointer changes to a black cross with arrows, double-click. This will make the column automatically resize itself to fit all current entries.

Enter Formulas

1. In your checkbook, you want to add your deposit or subtract your debit from your previous balance.
2. To let Excel know that you are typing a formula, start your formula with an equal (=) sign. In cell F2, type =E2-D2.
3. In cell F3, type =F2-D3+E3. This formula takes the previous balance from the cell above and then subtracts any debits or adds any deposits.

Copy the formula


1. You can now copy this formula to the remaining balance cells. Excel is smart enough to update the cell references when you move the formula.
2. Click cell F3 once to make it the active cell. Choose the Copy button to copy this formula to the clipboard.
3. Select the block of cells F4 to F6.
4. Paste the formula into these cells. To do this, choose the Paste button from your toolbar while your block of cells is selected.
5. After you have done this you can click any of the balance cells and look at the formula in the formula bar (just on top of your spreadsheet). Notice that the formula in each cell is slightly different.
6. Try changing the amount of a credit or debit. Notice the balance is automatically updated.

Save the workbook

1. To save the document click on the File menu.
2. Click on Save or Save As in the drop-down menu.
3. Choose where to save the file.
4. In the File Name box type the words *Check Book*.
5. Click the Save button.
6. Your work is now saved.

Excel Monthly Budget

Instructions: Follow the directions below to create a budget spreadsheet. The last page shows a sample of the final product.

In Excel there is usually more than one way to do something. If a different way to do it occurs to you, go ahead and try it! If it doesn't work, you can always click the **Undo** button. 

Remember the difference between the active cell and the edit mode:

- Clicking a cell once makes it **active**. You can perform actions on the active cell (make it bold or italic, delete it, etc.) but you cannot edit the text.
- To enter the **edit mode** you must double-click the active cell. Once the insertion point appears, the contents of the cell can be changed.

Entering Column Titles

1. In cell A1 type *Monthly Budget* and press ENTER.
2. In cell A2 type *Item*, and press the right arrow key or the TAB key to move to cell B2.
3. In cell B2 type *Amount* and press the right arrow key or the TAB key to move to cell C2.
4. In cell C2 type *Comments*.
5. Type *TOTAL* in cell A11, *INCOME* in cell A13, *EXPENSES* in A14, and *SAVINGS* in cell A15.

Formatting Column Titles

1. Select the block of cells that have column titles (*Item*, *Amount*, *Comments*) by clicking cell A2, then dragging the mouse pointer to cell F2. The row should be grayed - although the first cell will not be dark.

Hint: Make sure your mouse pointer is a large white cross when you select the cells.

2. Click the **Bold** button on the toolbar. Keep the cells selected.
3. Click the **Format** menu and select **Cells**.
4. Click the **Patterns** tab and select a light color from the color choices.
5. Click **OK**.

Move the title, **Monthly Budget**, to the middle of the spreadsheet

1. Select cells A1 to F1.
2. Click the **Format** menu and choose **Cells**.
3. On the **Alignment** tab click once in the box that says **Merge Cells**.
4. Click **OK**.

Center the title, **Monthly Budget**

1. Select cell A1 (click once in the cell).
2. Click the **Center** button.

Formatting Data


This is a step you can do before or after entering data. Since we would like to be able to read the column titles clearly, we will do this step first.

1. Select Columns A-F. Essentially you are selecting your entire spreadsheet. To select these cells move your mouse pointer to the letter **A** at the top of the first column. Click once and drag your mouse pointer to the letter **F** and let go.
2. To resize these columns click **Format** on the Menu bar. Click **Column** (which has an arrow on its right side, showing you it has options you can choose from) and choose **AutoFit Selection**.

Entering Data

1. Click cell A3. Type *Rent* (or *Mortgage* if you prefer) and press ENTER.
2. Using the arrow keys, or you mouse, move down to cell A4 and type *Utilities*.
3. Move down to cell A5 and type *Transportation*.
4. Move down to cell A6 and type *Food*.
5. Move down to cell A7 and type *Medical*.
6. Move down to cell A8 and type *Clothing*.
7. Move down to cell A9 and type *Leisure*.
8. Move down to cell A10 and type *Miscellaneous*.

Hint: As you enter text and data in a cell the format may change, and data may not fit in the column, turning into something like ##### (or simply cut off). If this happens, move your mouse between the column identifiers (between the letters). When the mouse pointer changes to a black cross with arrows, double-click. This will make the column automatically resize itself to fit all current data.

9. Type a numeric estimate (a dollar figure) for each category. These numbers should start in cell B3 and continue to B10 (the *Miscellaneous* category).
10. Type a dollar figure for your income in cell B13.
11. To standardize the B column so that the numbers present a currency style, select cells B3 through B15 and click the Currency Style button. 

Entering Formulas

1. We want to total the B column. To let Excel know that you are typing a formula, always start your formula with an equal = sign. In cell B11 type =SUM(B3:B10). You are telling Excel to total the sum of cells B3 through B11.

Hint: There are several ways to insert a formula into Excel. Three other ways to total the B column include:

1. In cell B11 type : =B3+B4+B4+B5+B6+B7+B8+B9+B10.
2. Highlight cells B3 through B11 then click **AutoSum** Σ .
3. Select Cell B11 (click once).

Click once on = to the left of the Formula bar.

Click the word **SUM** next to the drop down arrow to the left of the Formula bar.
B3:B10 should be in field Number 1.

Click **OK**.

2. In cell B14 type =B11. This inserts the totaled value of your expenses.
3. In cell B15, type =B13-B11. This is the formula that takes the balance of B11 and subtracts the expenses from B14 resulting in the amount left over as savings.

Finalizing and Saving

1. Check the spelling in your spreadsheet. Click the **Tools** menu and click **Spelling**.
2. Click the **Print Preview** button on the Standard toolbar. (If you aren't sure which button it is move your mouse pointer over the buttons until the identifying tag appears).
 - Does the document look the way you want it? If it does, click **Close** and proceed to save the document (see below). If not, click **Close** and attempt to make the necessary changes.
2. To save the document, insert a floppy disk into the appropriate disk drive. Click the **File** menu and click **Save As**.
3. In the **File Name** box type the words *Budget*.
4. Click the **Save** button.
5. Your work is now saved. Close the Excel by clicking the Close (**X**) button in the upper right corner of the screen.

Sample Budget

Monthly Budget (March)

Item	Amount	Comments
Rent	\$ 800.00	May 1st this goes to \$825.00
Utilities	\$ 40.00	Look into new windows
Transportation	\$ 50.00	Take the bus
Food	\$ 150.00	
Medical	\$ 25.00	Still owe the co-pay from eye doctor
Clothing	\$ 75.00	Try and get this down to \$40.00
Leisure	\$ 100.00	
Miscellaneous	\$ 100.00	Largely to birthday's this month
TOTAL	\$ 1,340.00	
Income	\$ 2,500.00	
Expenses	\$ 1,340.00	
Savings	\$ 1,160.00	