



UNIT: 03

Modifying a Worksheet

Learning Outcomes

By the end of this unit the learner will be able to:

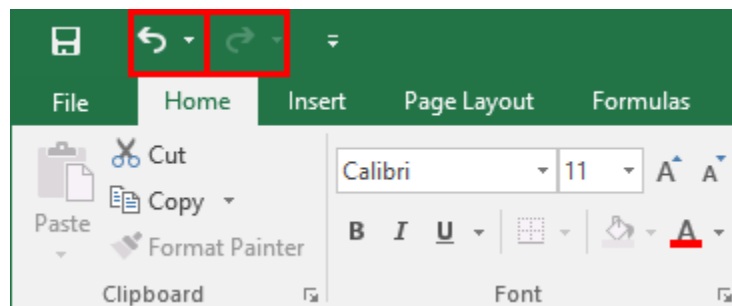
- ✓ **Manipulate data**
- ✓ **Insert, manipulate, and delete cells, columns, and rows**
- ✓ **Search for and replace data**
- ✓ **Spell check a worksheet**

UNIT 03 MODIFYING A WORKSHEET

Manipulate Data

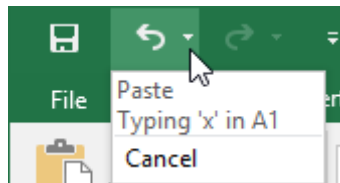
THE UNDO AND REDO COMMANDS

Like in many other applications, the **Undo** command allows you to reverse the last action that you completed. The **Redo** command, on the other hand, will cancel the last Undo action. Both of these commands are available on the Quick Access toolbar:



Additionally you can also perform the Undo command by pressing Ctrl + Z on your keyboard and the Redo command by pressing Ctrl + Y.

The Undo and Redo commands both include a drop-down list that will display recently completed actions that you can undo or redo:

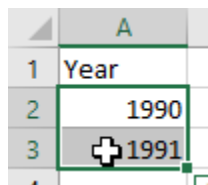


Note that while you can undo most actions in Excel, there are a few exceptions. For example, you cannot undo the save action.

THE AUTOFILL FEATURE

The AutoFill feature can help you quickly enter repeated or incremental text and numbers. For example, imagine that you have to enter all of the years from 1990-2010 in a worksheet. Rather than typing each year manually, you can take advantage of the AutoFill feature to enter the data quickly and easily.

In order to use AutoFill, you need to establish a pattern. For this example, we will type 1990 in one cell and 1991 immediately below. Then we will select both cells:



Next, we will click and drag the small square down the worksheet until the desired value is reached. Once “2010” appears beside the mouse pointer, we’ll release the mouse button and Excel will automatically fill in the numbers:

	A	B
1	Year	
2	1990	
3	1991	
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		2010
21		
22		

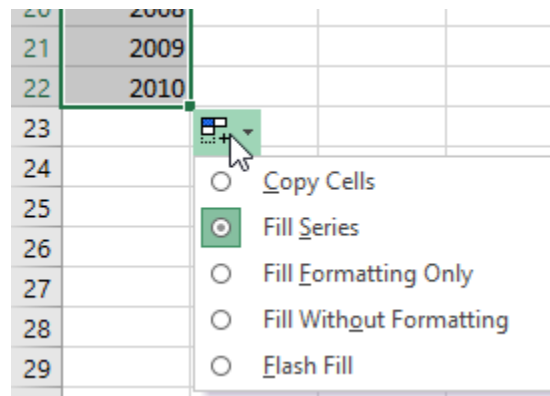
	A	B
1	Year	
2	1990	
3	1991	
4	1992	
5	1993	
6	1994	
7	1995	
8	1996	
9	1997	
10	1998	
11	1999	
12	2000	
13	2001	
14	2002	
15	2003	
16	2004	
17	2005	
18	2006	
19	2007	
20	2008	
21	2009	
22	2010	

The worksheet will now contain the years 1990-2010.

This feature doesn't just work on single increments either. You can have Excel jump 2, 10, or 10,000 numbers at a time, forwards or backwards, depending on the two initial values you have entered. Excel also comes pre-programmed with some other common AutoFill sequences, including days of the week and months of the year, that do not require you to enter two consecutive values.

AUTOFILL OPTIONS

For more control over how AutoFill operates, click the small icon in the bottom right-hand corner of the AutoFilled data:

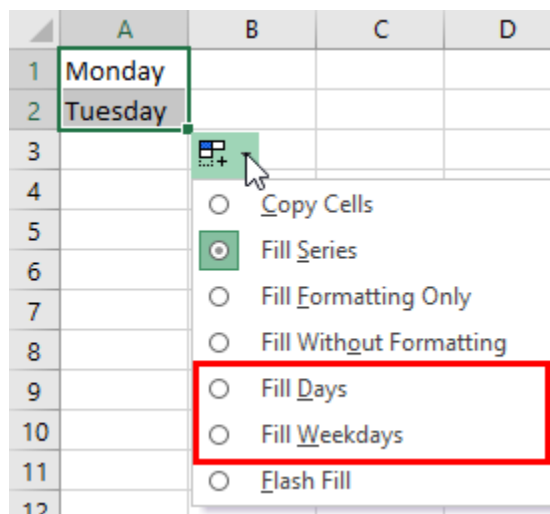


AutoFill options include the following:

- **Copy Cells:** Copy the selected cells into the AutoFilled area.
- **Fill Series** (default option): AutoFill the pattern of the selected cells.
- **Fill Formatting Only:** Apply only the formatting to the AutoFilled area.
- **Fill Without Formatting:** AutoFill the pattern of the selected cells while ignoring any formatting.
- **Flash Fill:** AutoFill the column with data when it senses a pattern.

Other AutoFill Options

Note that the options that are shown in the AutoFill options menu can change depending upon the type of data in the first cell in the range of cells that you were working with. For example, suppose that the first cell showed any day of the week. This would cause the AutoFill options menu to display the Fill Days and Fill Weekdays options:



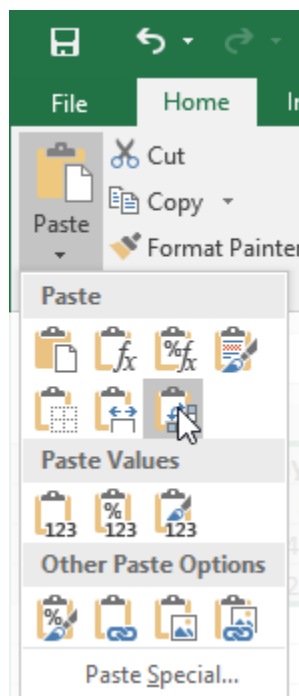
These options allow you to choose between including and excluding the weekend from the series that you are creating.

THE TRANSPOSE OPTION

The Transpose option is a type of Paste command that includes options to shift the vertical and horizontal orientation of any columns and rows in a worksheet. For example, suppose that you had a data range that displayed product names and numbers as rows, with days of the week displayed as columns:

	A	B	C	D	E	F
1		Monday	Tuesday	Wednesday	Thursday	Friday
2	Product 1	5	4	8	4	5
3	Product 2	48	58	87	42	64
4	Product 3	29	31	14	32	24

You could transpose the columns and rows by copying this data range and then placing your cursor on the worksheet where you want the copied data to be pasted. Next, click Home → Paste → Transpose:



The result will flip the row and columns:

	A	B	C	D	E	F
1		Monday	Tuesday	Wednesday	Thursday	Friday
2	Product 1	5	4	8	4	5
3	Product 2	48	58	87	42	64
4	Product 3	29	31	14	32	24
5						
6		Product 1	Product 2	Product 3		
7	Monday	5	48	29		
8	Tuesday	4	58	31		
9	Wednesday	8	87	14		
10	Thursday	4	42	32		
11	Friday	5	64	24		
12						

LIVE PREVIEW

Live Preview is used to give you an idea of how copied objects will look when pasted in a selected area using regular paste or a Paste Special option. These previews are enabled by default and will be displayed automatically when you place your cursor over a paste option on the Paste drop-down command or the Transpose paste option on the context menu:

	A	B	C	D	E	F
1		Monday	Tuesday	Wednesday	Thursday	Friday
2	Product 1	5	4	8	4	5
3	Product 2	48	58	87	42	64
4	Product 3	29	31	14	32	24
5						
6		Product 1	Product 2	Product 3		
7	Monday	5	48		29	
8	Tuesday	4	58		31	
9	Wednesday				14	
10	Thursday				32	
11	Friday				24	
12						

Paste Options:

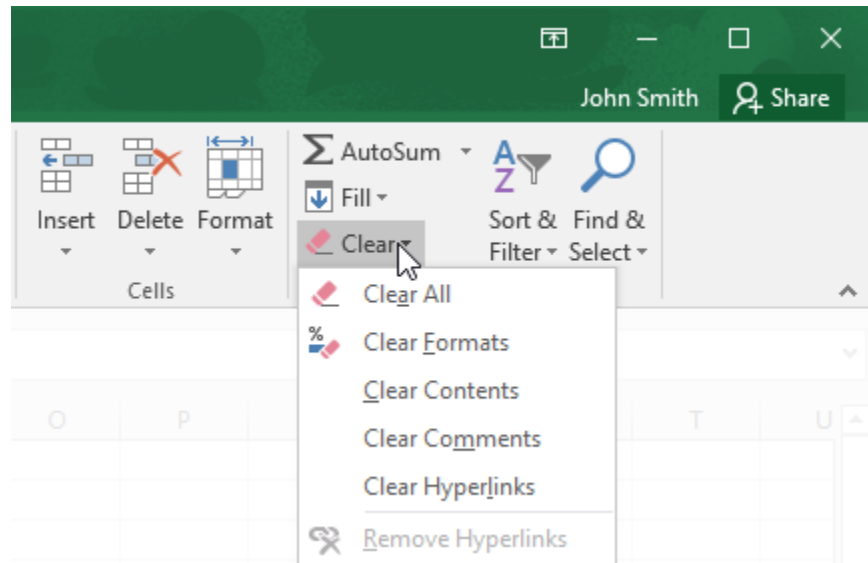
Clipboard icons: 123, fx, Transpose (T), %

A preview of how the data will look when pasted will now be displayed and any overlaying menus will become transparent.

You will also find this feature when formatting your worksheets by changing fonts and adding styles. We will discuss this aspect of Live Preview further in Lesson 4.

THE CLEAR BUTTON

One or more selected cells can be cleared of formatting, data, comments, or hyperlinks by clicking Home → Clear → [object type]:



Alternatively, you can clear all of these objects at once by clicking Home → Clear → Clear All.

QUICK ANALYSIS FEATURES

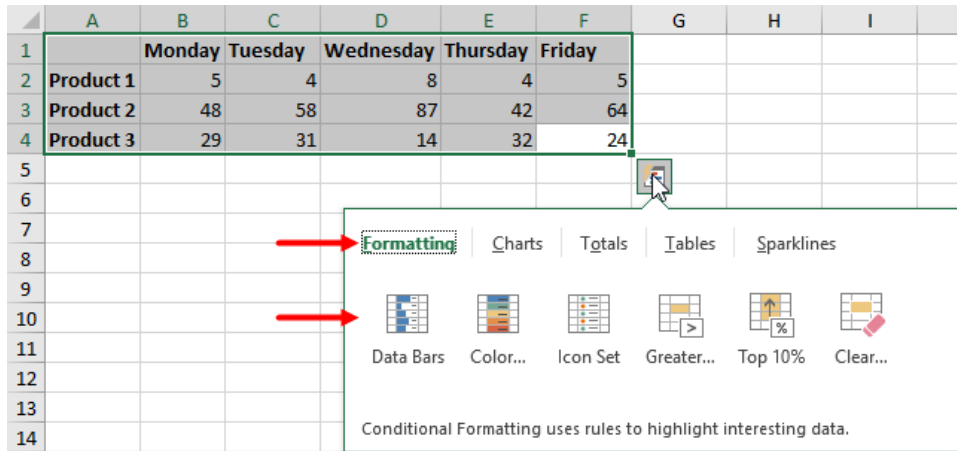
Quick Analysis provides easy access to Excel's data visualization and management tools, and helps you use them. To start, select the data in question and click the Quick Analysis icon in the bottom right corner:

	A	B	C	D	E	F	G	H	I	J
1		Monday	Tuesday	Wednesday	Thursday	Friday				
2	Product 1	5	4	8	4	5				
3	Product 2	48	58	87	42	64				
4	Product 3	29	31	14	32	24				
5										
6										
7										
8										
9										
10										

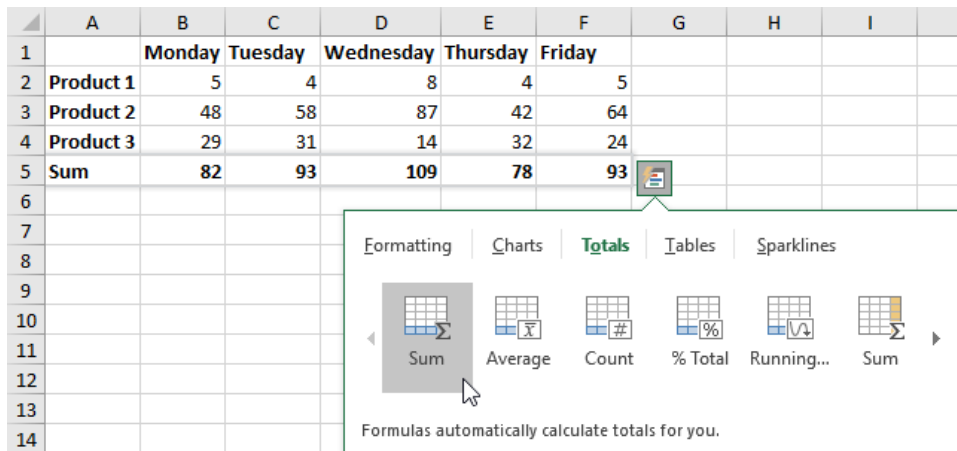
Quick Analysis (Ctrl+Q)
 Use the Quick Analysis tool to quickly and easily analyze your data with some of Excel's most useful tools, such as charts, color-coding, and formulas.

(Note that you can also use the Ctrl + Q shortcut.)

The Quick Analysis pane will open. Choose a category from the top of the pane and a specific style or tool from the middle of the pane:



You will see a preview of each item as you hover over it:



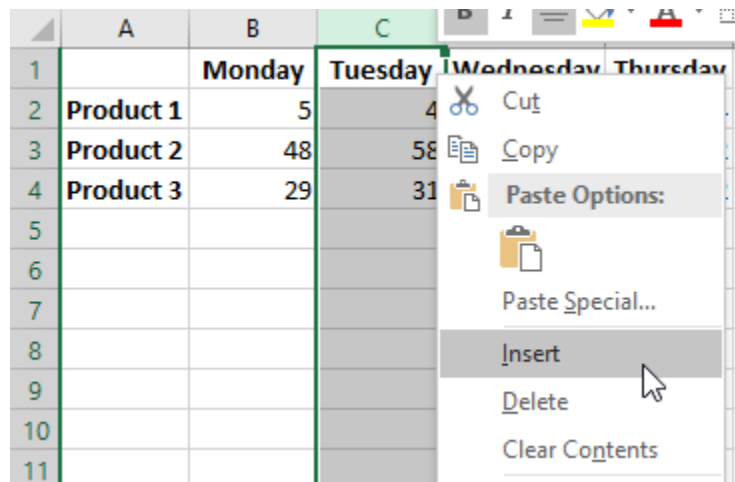
(Notice the left and right arrows in the middle part of the pane, which allow you to view more tools in this category.) Click a tool to apply it or close the pane by clicking back in the Excel window.

Insert, Manipulate, and Delete Cells, Columns, and Rows

THE INSERT AND DELETE OPTIONS

To insert a column in a worksheet, right-click a column header and click Insert. This will add a new column in this location and push all existing information (including the column you right-clicked) one column to the right.

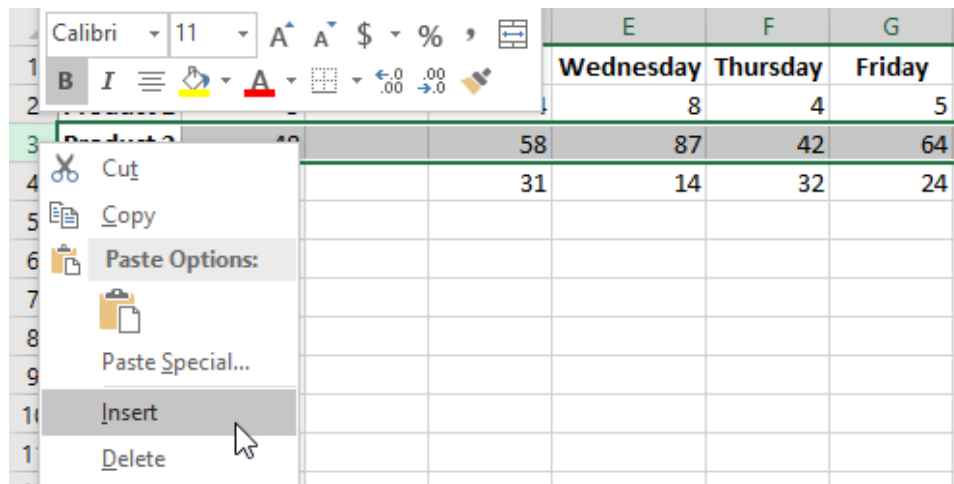
Here, you can see that a new column is being inserted between columns B and C:



A new empty column is now ready to be worked with:

	A	B	C	D	E	F	G
1		Monday		Tuesday	Wednesday	Thursday	Friday
2	Product 1	5		4	8	4	5
3	Product 2	48		58	87	42	64
4	Product 3	29		31	14	32	24

This procedure is the same for inserting rows. To insert a row, right-click a row header and click Insert:

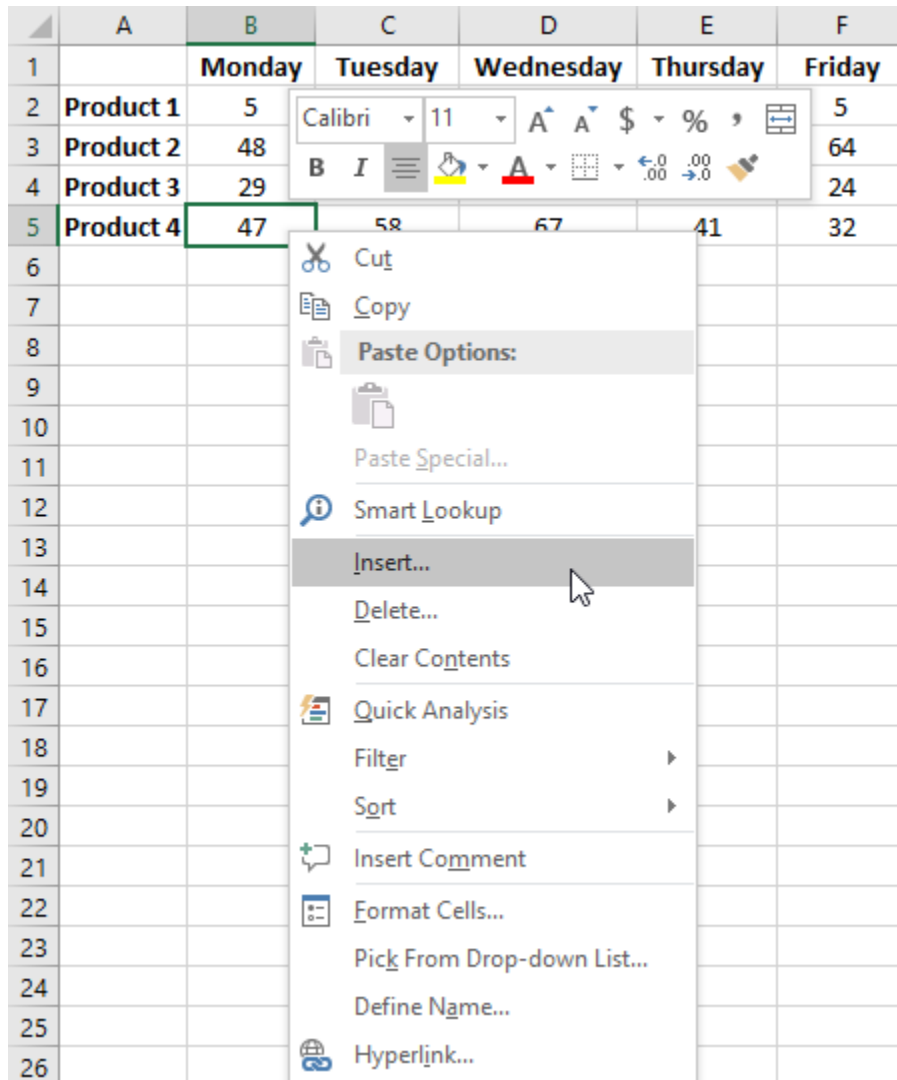


All of the data in the row you selected as your insertion point, and the data in the rows beneath it, will be shifted down one row. This will leave an empty row where you can enter new data:

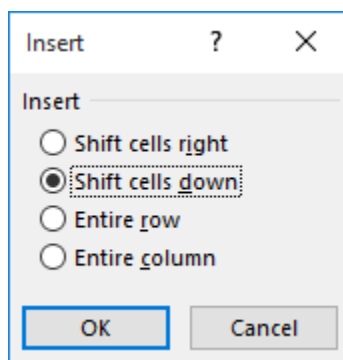
	A	B	C	D	E	F	G
1		Monday		Tuesday	Wednesday	Thursday	Friday
2	Product 1	5		4	8	4	5
3							
4	Product 2	48		58	87	42	64
5	Product 3	29		31	14	32	24

Deleting rows and columns works in the same way. To delete a column, right-click the column header you want to remove and click Delete. All of the data to the right of the column will be shifted one row to the left, and the old information will be replaced with the data that was in the column to the immediate right. To delete a row, right-click the row header and click Delete. All of the data below the row will be shifted up one row, and the old information will be replaced with the data that was in the row directly beneath.

To insert a single cell, right-click a cell and click Insert:

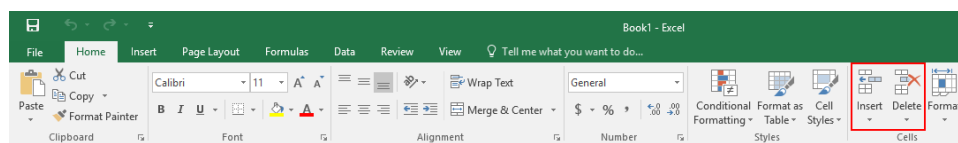


The Insert dialog box will appear:



When you insert a cell, the existing data must be relocated. Selecting “Shift cells right” in this dialog box will move the item in the active cell, and all the items to the right of it, one cell further to the right, leaving a blank cell at the original location. For example, if you added a new cell at A1 the data in cell A1 would move to B1, the data in B1 would move to C1, and so on, leaving cell A1 empty. Selecting “Shift cells down” will perform a similar operation, but a downward direction. For example, if you inserted a cell at location B1, the data in B1 would shift to B2, B2 would shift to B3, and so on, leaving B1 empty. The “Entire row” or “Entire column” options allow you to insert a row or a column in the same manner we just discussed.

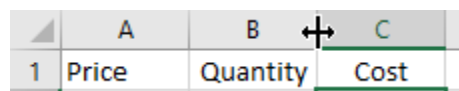
The Insert and Delete commands can also be found on the Home tab:



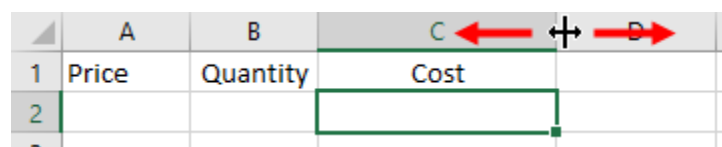
COLUMN WIDTH AND ROW HEIGHT ALTERNATION METHODS

Sometimes it will be necessary to change the size of a row or column in order to display all the data contained in the cell. You also might want to change the size of a row or column just for appearance. In either case, resizing a row or column is quite easy.

To change the size of a column, place your mouse pointer on the line that divides the column headers. For example, if you wanted to change the size of column B, you would place your mouse pointer on the line separating B and C. Your cursor will turn into a vertical line with a small arrow on either side:

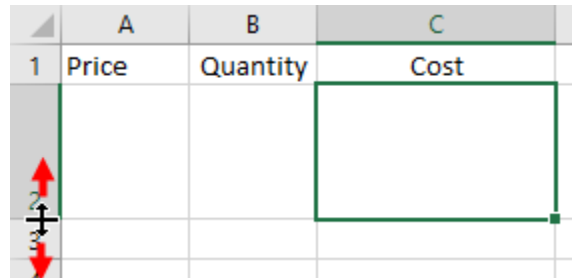


When you see this pointer, click and hold the left mouse button to drag the column edge to the left or right. As you drag you will see the size (default width is 64 pixels):

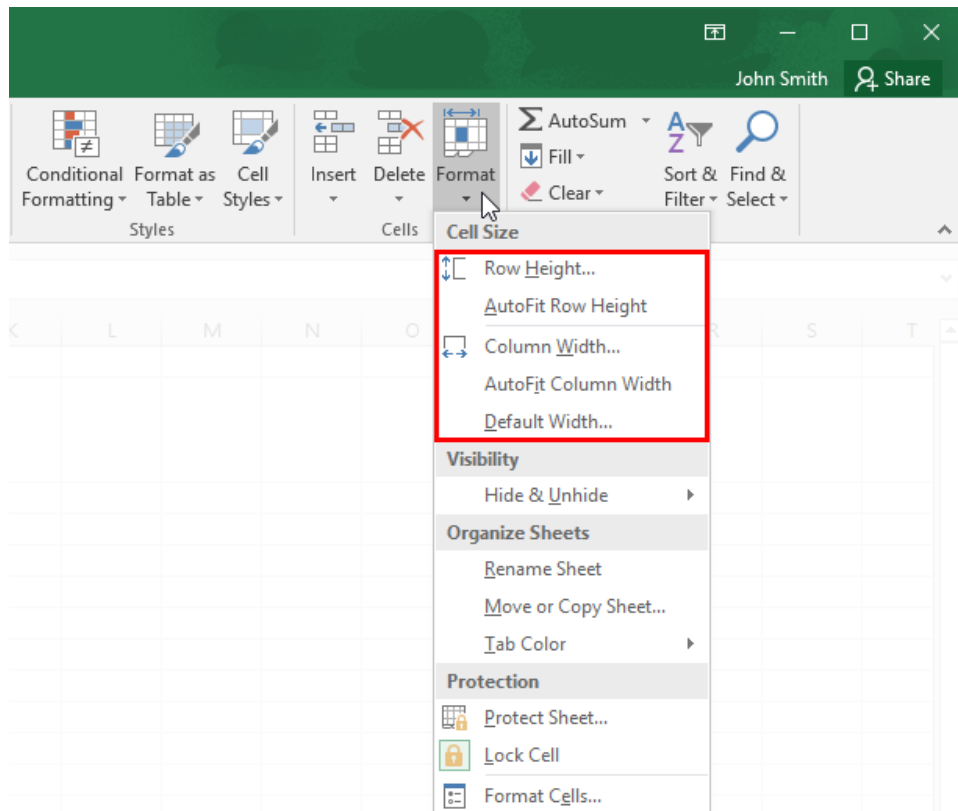


When you release your mouse, the size of the column will be changed.

To change the size of a row, place your pointer on the line separating the row headers and then click and drag up or down to make the row larger or smaller (default height is 20 pixels):

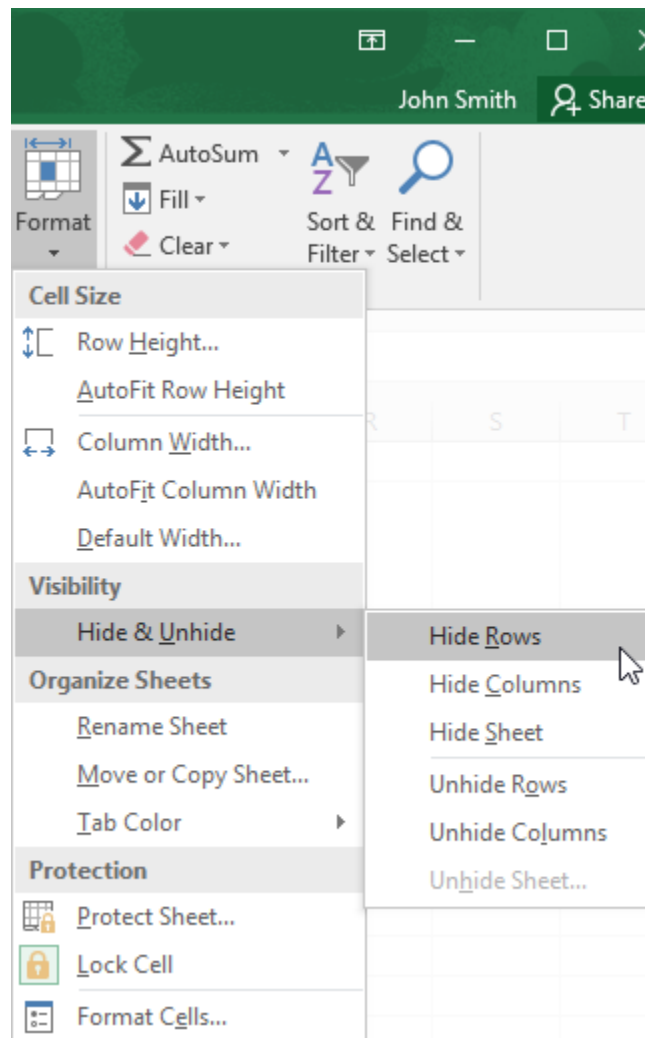


There are more resizing commands available by clicking Home → Format:



THE HIDE AND UNHIDE OPTIONS

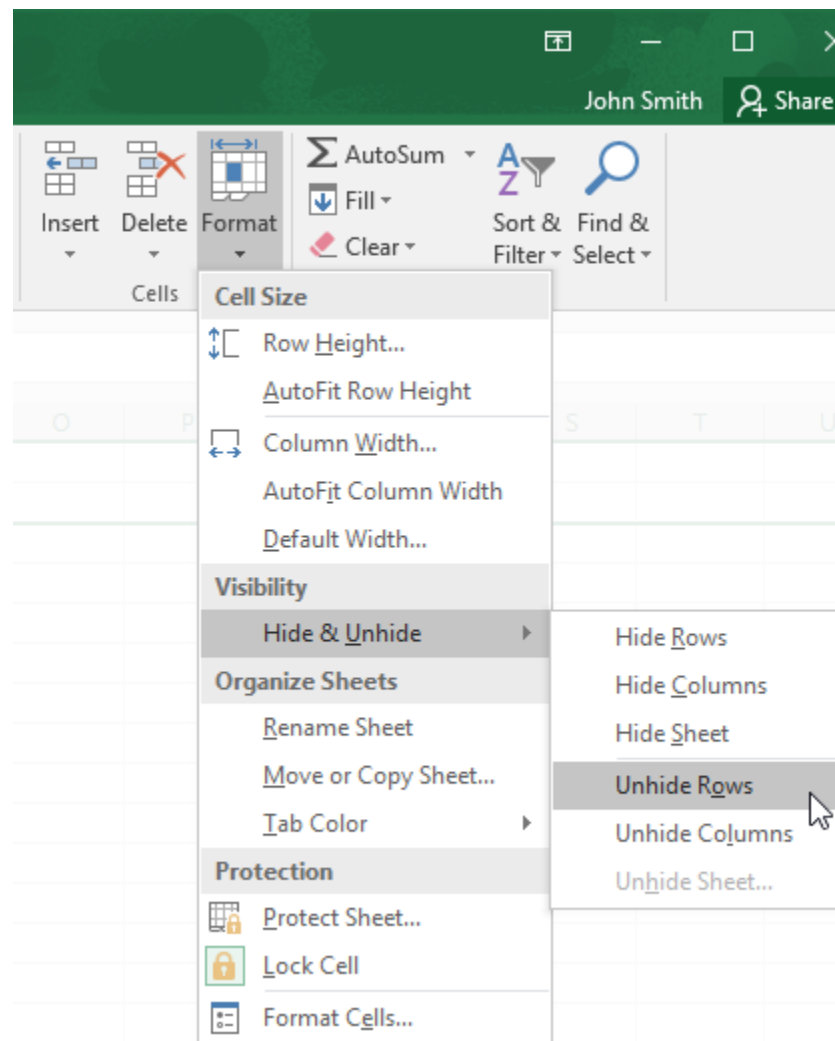
Excel also gives you the ability to temporarily hide particular rows, columns, or sheets and then unhide them when necessary. To begin, select the row or column that you want to hide, or make the target sheet active. Then, click Home → Format → Hide & Unhide, and choose the desired option:



In this example, you can see that row 3 is hidden:

	A	B	C	D	E	F
1		Monday	Tuesday	Wednesday	Thursday	Friday
2	Product 1	5	4	8	4	5
4	Product 3	29	31	14	32	24
5						

To re-show it, we would re-select the surrounding rows and click Home → Format → Hide & Unhide → Unhide Rows:



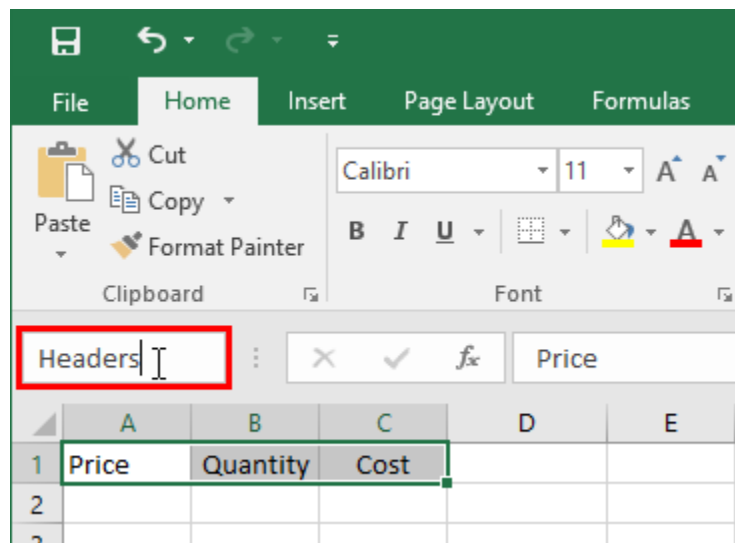
Note that the Hide and Unhide commands are also available on the right-click menus for rows, columns, and sheets.

Search For and Replace Data

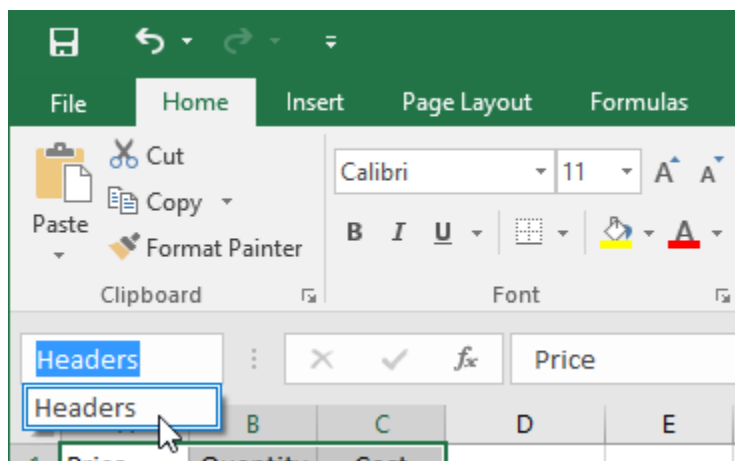
CELL NAMES AND RANGE NAMES

Rather than using cell references (e.g. A1:C1), you can apply descriptive names to cell ranges. Range names are not case sensitive, cannot contain spaces, and cannot start with a number.

To apply a cell name or range name, first use your cursor to select the cell(s) that you want to name. Next, type the name that you would like to use into the Name Box:



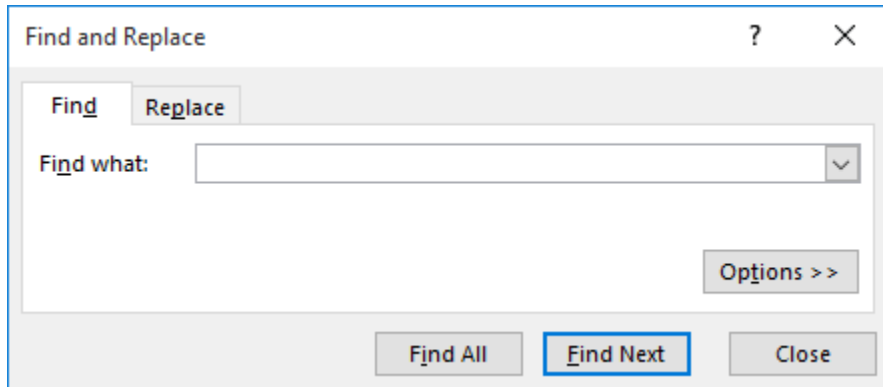
Pressing Enter will apply this name. From then on, you will be able to select this range by clicking the Name Box drop-down menu and clicking on the range name that you set:



To remove a cell name or range name, select the cell(s) in question and then clear the name out of the Name Box. Press Enter and the name will be removed.

THE FIND COMMAND

The Find command is used to locate information or data within the current workbook. The Find and Replace dialog has lots of options on the Find tab to help with this task:

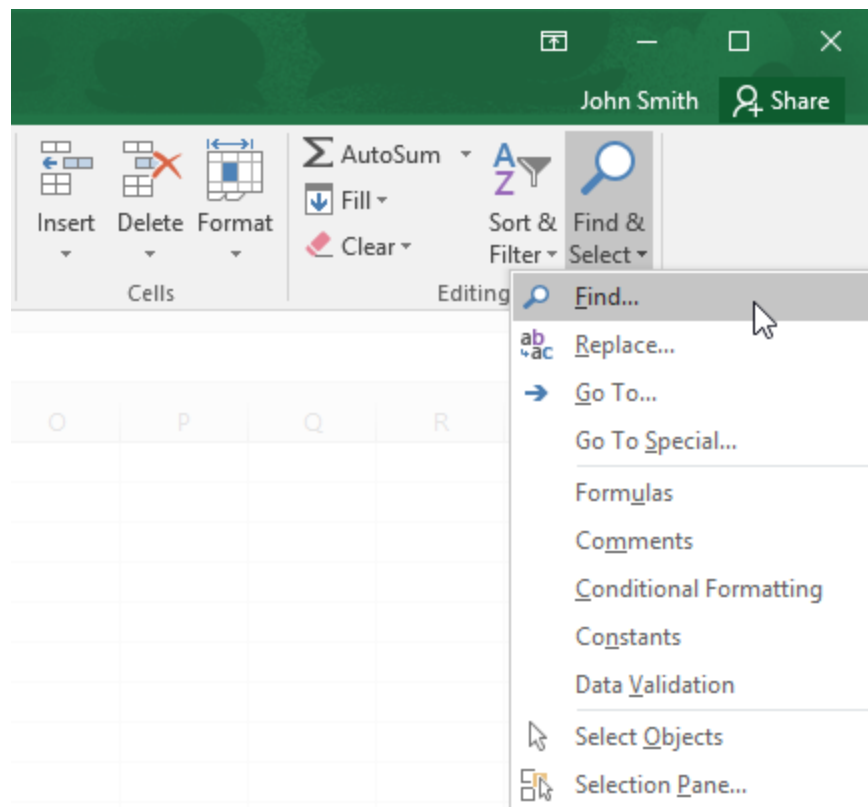


Here is an overview of the commands in this dialog box.

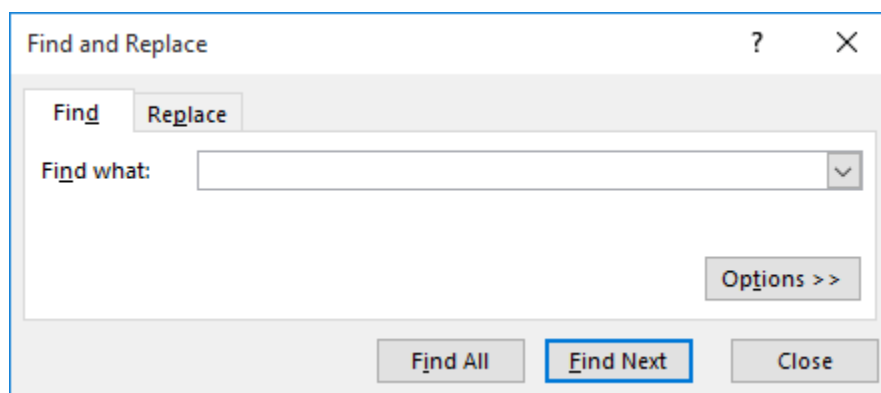
- The “**Find what**” drop-down menu allows you to display any items that were recently searched for.
- The **Options** button will expand this dialog and show you more search options, like matching text case.
- The **Find All** button will actually execute the search command and look for all instances of the search terms within the workbook.
- The **Find Next** button, on the other hand, will allow you to search for the next occurrence of the search term. Clicking it again will highlight the next occurrence, and so on.

Accessing the Find Command

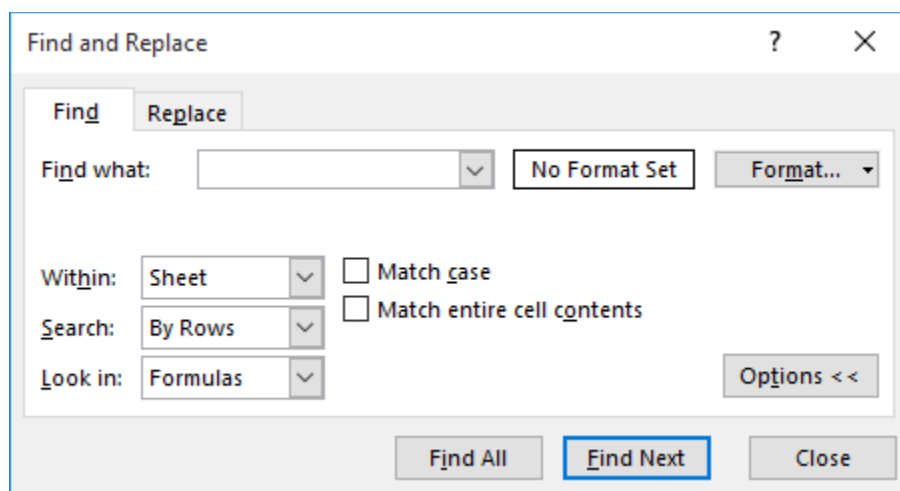
To access the Find and Replace feature, click Home → Find & Select → Find, or press Ctrl + F:



Either action will display the Find and Replace dialog box with the options hidden by default:



If you click the Options button, you have more choices to refine your search:



You can now choose to search formatting, within a sheet or workbook, in rows or columns, or by matching the case, all by making selections in the combo boxes.

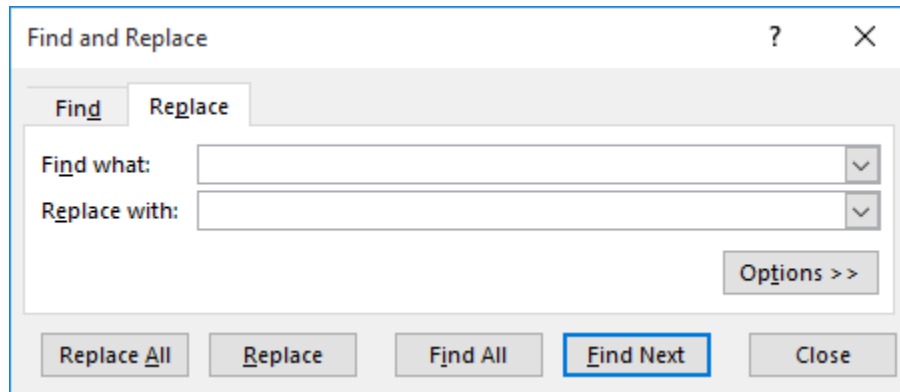
Advanced Search Options

The Find and Replace dialog contains some powerful advanced search options that you can use to find exactly what you are looking for in a workbook.

- Clicking the **Format** button will open the Find Format dialog. Here, you can specify the exact format type that you would like to search for.
- The **Format** drop-down menu allows you to choose a format to look for based upon an existing cell.
- The **Within** drop-down menu allows you to choose between searching the current worksheet or the entire workbook.
- The **Search** drop-down menu is used to specify if the search should be performed by row or column.
- The “**Look in**” drop-down menu is used to specify if you want to search formulas, values, or comments.
- The “**Match case**” checkbox allows you to specify whether you want the results of your search to match the exact text case of your search terms.
- Similarly, the “**Match entire cell contents**” checkbox will only return results that are the exact and complete characters of the search terms.

THE REPLACE COMMAND

If you click the Replace tab in the Find dialog, you have the option to search for a term and replace it with something else:



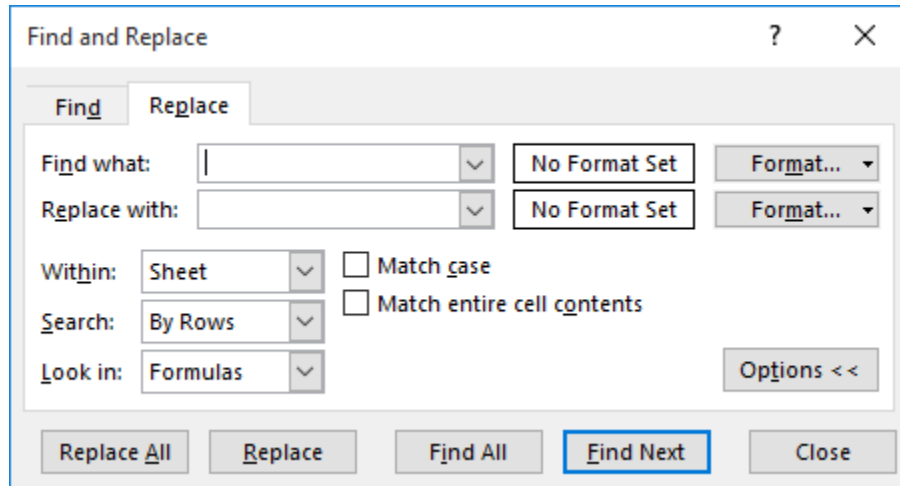
(You also can jump directly to this tab by pressing Ctrl + H or by clicking Home → Find & Select → Replace.)

If any instances of the search criteria entered in the “**Find what**” text field are found, they can be replaced with whatever is in the “**Replace with**” text field. All you have to do is click the **Replace** button each time Excel finds something.

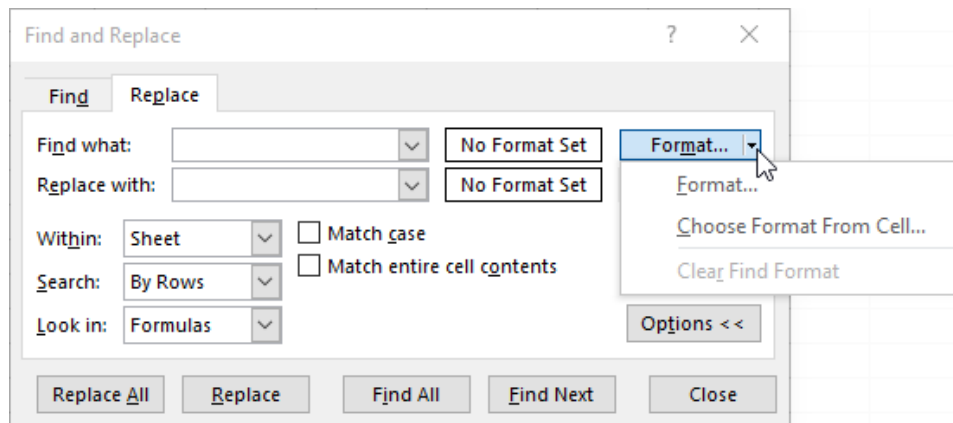
If you click the **Replace All** button, Excel will replace every instance of the word or number it finds with the replacement term, without waiting for you to click Replace for each one.

Advanced Replace Options

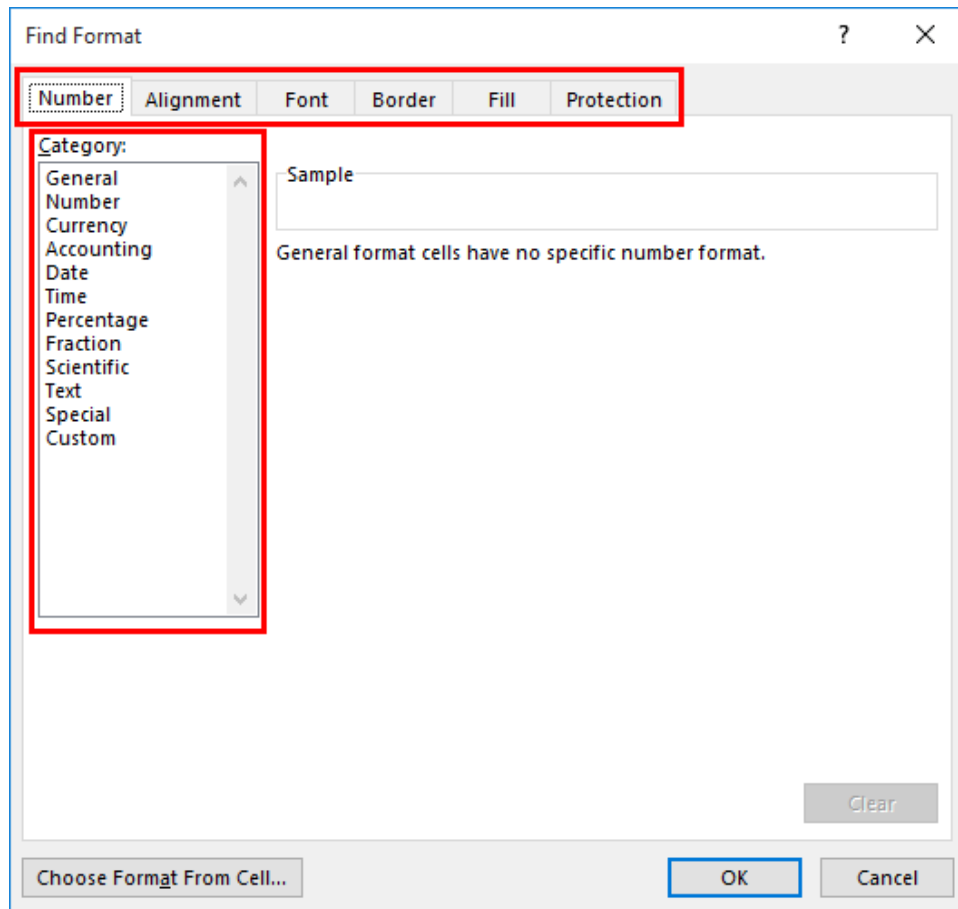
The Options button will show additional controls and commands that you can use to get more specific with your replace action:



Find and Replace also lets you search for and replace certain types of formatting. First, click the Format button and click Format:

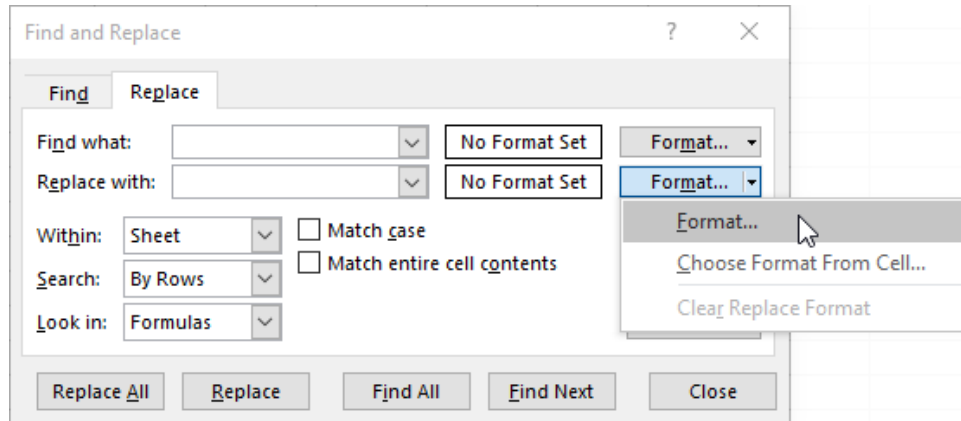


The Find Format dialog will open. Here you can select a format type from the tabs at the top and then specify the details of the format in the dialog. For example, if you choose the Number category you can select the type of number formatting that you want Excel to find. Click OK once you have set your options:



(You can also choose a format from a cell by clicking the Choose Format From Cell button, which will allow you to click a worksheet cell that contains the desired formatting, and populate the dialog with those options.)

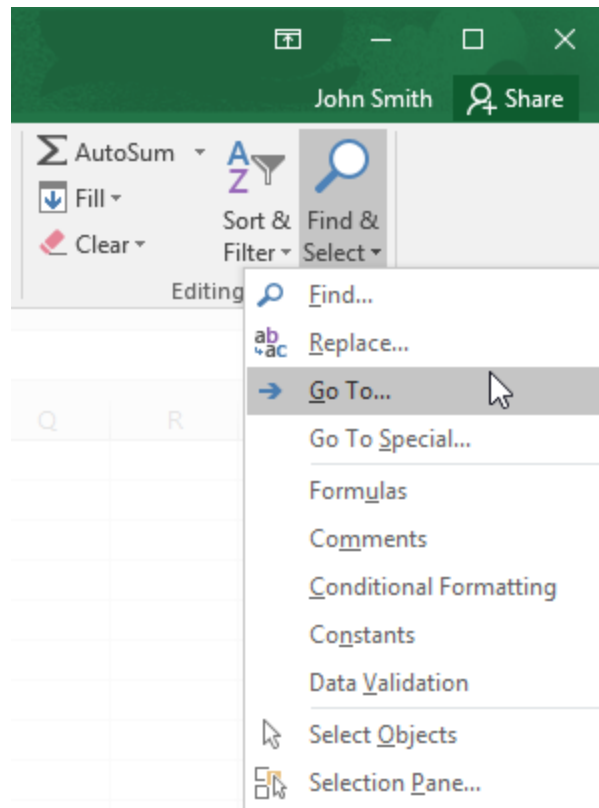
Once you click OK in the Find Format dialog, you will be returned to the Replace dialog box. You can choose a replacement format in the same way that you chose a format to find:



In the second half of the dialog, there are options to search worksheets, workbooks, and formulas. Once your options are set, click Replace to replace the unwanted format one cell at a time, or click Replace All to perform all of the replacements at once.

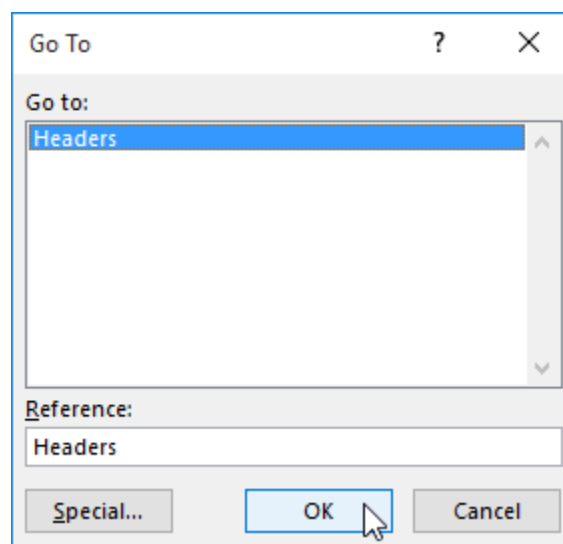
THE GO TO COMMAND

To view the Go To window, click Home → Find & Select → Go To:

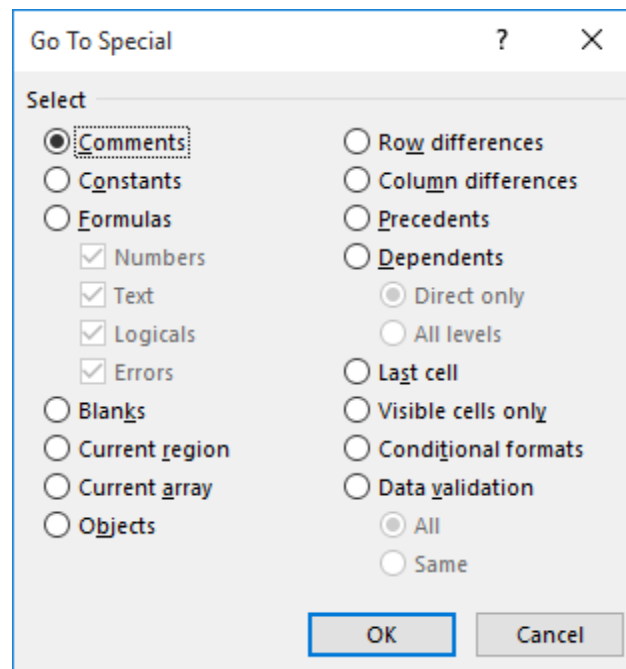


(You can also directly open the Go To dialog box by pressing Ctrl + G on your keyboard.)

Using this dialog box, you are able to quickly go to any named range within your workbook. For example, here you can see the “Headers” range that we can quickly go to and select:



Clicking the **Special** button will display another dialog box that allows you to select cells based on chosen criteria. For example, you can choose blank cells, cell that contain comments, and much more:

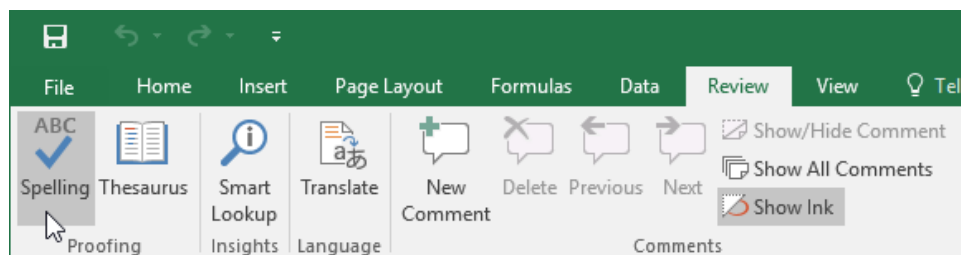


(You can display this dialog box directly by clicking Home → Find & Select → Go To Special.)

Spell Check a Worksheet

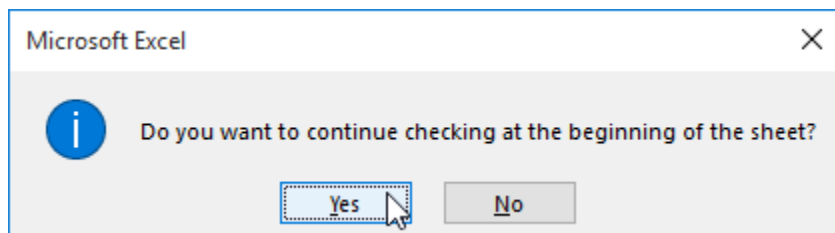
THE SPELLING DIALOG BOX

To start checking the spelling and grammar in your workbook, first open the Spelling dialog by clicking Review → Spelling:

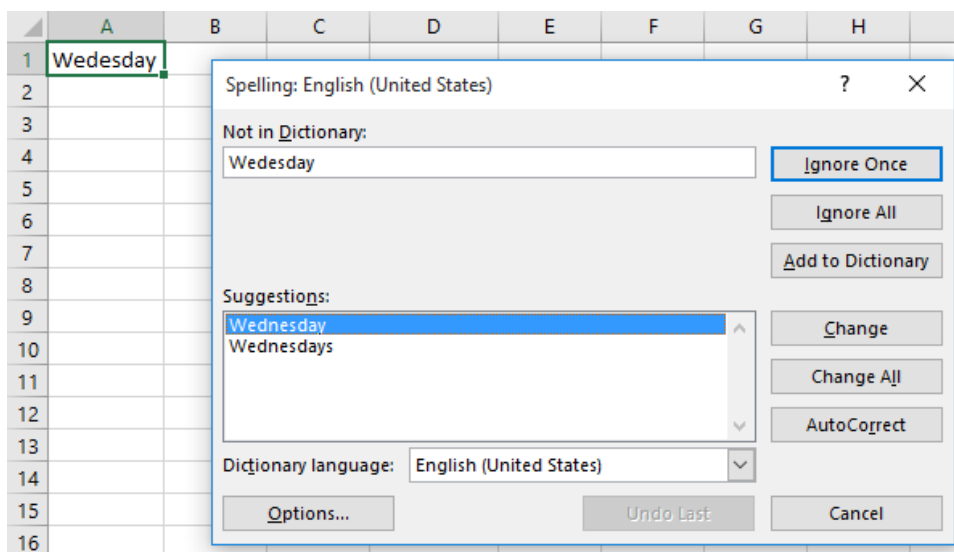


(Note that you can also open this dialog by pressing F7 on your keyboard.)

You will likely be prompted to begin checking spelling at the beginning of the sheet (A1). Click Yes to continue:



Any misspelled or unrecognized words will be displayed in the Spelling dialog box. Here's an example:



As you can see, the word “Wednesday” is misspelled and shown at the top of the dialog. There are two suggestions listed in the lower half of the dialog and a number of other commands:

Ignore Once	Ignore this particular instance and keep checking the rest of the worksheet.
Ignore All	Ignore all instances of the misspelled word and keep checking the

	rest of the sheet.
Add to Dictionary	Add this particular word to Excel's dictionary so each subsequent entry is listed as correct. This is useful for proper names.
Change	Change this particular instance of the misspelled/unrecognized word to whatever is currently highlighted in the Suggestions box.
Change All	Change all instances of the misspelled/unrecognized word to whatever is currently highlighted in the Suggestions box.
AutoCorrect	Click this button to have AutoCorrect automatically change this instance of the word to whatever Excel feels is correct.
Options	This will open the Excel Options dialog to the Proofing category. Here you can change AutoCorrect options and set additional corrective actions.
UndoLast	If you accidentally changed something with the previous misspelled/unrecognized word, click this button to revert that change and then continue checking the worksheet.
Cancel	Stop checking for spelling errors and close this dialog.

When the checking is complete, click OK to return to your work:

