

CHAPTER 1

Working with Excel

You use Microsoft Excel to create *spreadsheets*, which are documents that enable you to manipulate numbers and formulas to quickly create powerful mathematical, financial, and statistical models. In this chapter you learn about Excel, take a tour of the program's features, and learn how to customize some aspects of the program.



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Getting to Know Excel

Working with Excel involves two basic tasks: building a spreadsheet and then manipulating the data on the spreadsheet. Building a spreadsheet involves adding data such as numbers and text, creating formulas that run calculations, and adding functions that perform specific tasks. Manipulating spreadsheet data involves calculating totals, adding data series, organizing data into tables, and visualizing data with charts.

This section just gives you an overview of these tasks. You learn about each task in greater detail as you work through the book.

Build a Spreadsheet

Add Data

You can insert numbers, text, and other characters into any cell in the spreadsheet. Click the cell that you want to work with and then type your data in the formula bar. This is the large text box above the column letters. Your typing appears in the cell that you selected. When you are done, press Enter. To edit existing cell data, click the cell and then edit the text in the formula bar.


1	Expense Budget Calculation			
2				
3		January	February	March
4	Advertising	4,600	4,200	5,200
5	Rent	2,100	2,100	2,100
6	Supplies	1,300	1,200	1,400
7	Salaries	16,000	16,000	16,500
8	Utilities	500	600	600
9				

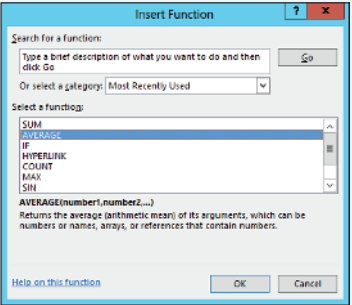
Add a Formula

A *formula* is a collection of numbers, cell addresses, and mathematical operators that performs a calculation. In Excel, you enter a formula in a cell by typing an equal sign (=) and then the formula text. For example, the formula =B1-B2 subtracts the value in cell B2 from the value in cell B1.

1	Expense Budget Calculation			
2				
3		January	February	March
4	Advertising	4,600	4,200	5,200
5	Rent	2,100	2,100	2,100
6	Supplies	1,300	1,200	1,400
7	Salaries	16,000	16,000	16,500
8	Utilities	500	600	600
9	2012 TOTAL	24,500	24,100	25,800
10				
11				

Add a Function

A *function* is a predefined formula that performs a specific task. For example, the AVERAGE function calculates the average of a list of numbers, and the PMT function calculates a loan or mortgage payment. You can use functions on their own, preceded by =, or as part of a larger formula. Click **Insert Function** () to see a list of the available functions.



Manipulate Data

Calculate Totals Quickly

If you just need a quick sum of a list of numbers, click a cell below the numbers and then click the **Sum** button (Σ), which is available in the Home tab of the Excel Ribbon. You can also select the cells that you want to sum, and their total appears in the status bar.

	A	B	C	D
1	Sales By Division			
2		January	February	March
3	East	\$23,500	\$23,000	\$24,000
4	West	\$28,750	\$27,900	\$29,500
5	North	\$24,400	\$24,300	\$25,250
6		=SUM(B3:B5)		
7				

Fill a Series

Excel enables you to save time by completing a series of values automatically. For example, if you need to enter the numbers 1 to 100 in consecutive cells, you can enter just the first few numbers, select the cells, and then click and drag the lower-right corner to fill in the rest of the numbers. With Excel you can also fill in dates, as well as the names for weekdays and months.

	A	B	C
1	January 1, 2013		
2	January 2, 2013		
3	January 3, 2013		
4	January 4, 2013		
5	January 5, 2013		
6	January 6, 2013		
7	January 7, 2013		
8	January 8, 2013		
9	January 9, 2013		
10	January 10, 2013	January 10, 2013	
11			

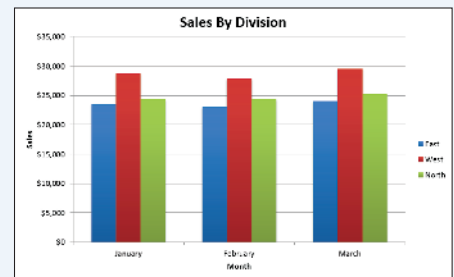
Manage Tables

The row-and-column format of a spreadsheet makes Excel suitable for simple databases called *tables*. Each column becomes a field in the table, and each row is a record. You can sort the records, filter the records to show only certain values, and add subtotals.

	Account Name	Account Number	Invoice Number	Invoice Amount	Due Date
4	Door Stoppers Ltd.	01-0045	117328	\$58.50	2/2/2013
5	Door Stoppers Ltd.	01-0045	117319	\$78.85	1/16/2013
6	Door Stoppers Ltd.	01-0045	117324	\$101.01	1/26/2013
7	Door Stoppers Ltd.	01-0045	117333	\$1,685.74	2/11/2013
8	Chimera Illusions	02-0200	117334	\$303.65	2/12/2013
9	Chimera Illusions	02-0200	117350	\$456.21	3/15/2013
10	Chimera Illusions	02-0200	117345	\$588.88	3/6/2013
11	Chimera Illusions	02-0200	117318	\$3,005.14	1/14/2013
12	Renaud & Son	07-0025	117331	\$565.77	2/8/2013
13	Renaud & Son	07-0025	117359	\$1,125.75	4/9/2013
14	Renaud & Son	07-0025	117335	\$3,005.14	2/13/2013

Add a Chart

A *chart* is a graphic representation of spreadsheet data. As the data in the spreadsheet changes, the chart also changes to reflect the new numbers. Excel offers a wide variety of charts, including bar charts, line charts, and pie charts.



Start Excel

Before you can perform tasks such as adding data and building formulas, you must first start Excel. This brings the Excel window onto the Windows desktop, and you can then begin using the program. How you start Excel depends on which version of Windows you are using. In this section, you learn how to start Excel 2013 in Windows 8 and in Windows 7.

This task and the rest of the book assume that you have already installed Excel 2013 on your computer.

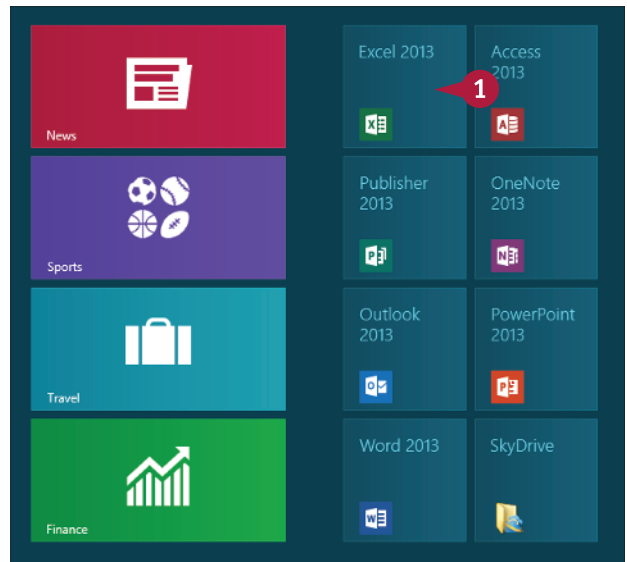
Start Excel

Start Excel in Windows 8

- 1 In the Windows 8 Start screen, click **Excel 2013**.

The Microsoft Excel window appears on the desktop.

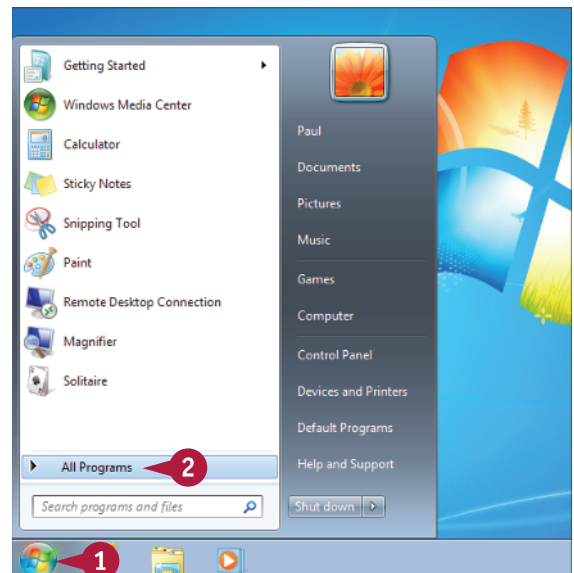
Note: Click **Blank workbook** to open a new Excel file.



Start Excel in Windows 7

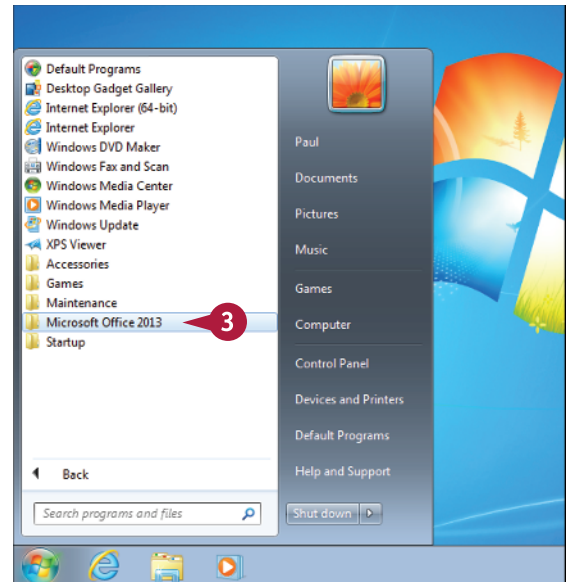
- 1 Click **Start**.
- 2 Click **All Programs**.

The Start menu appears.



The All Programs menu appears.

- 3 Click **Microsoft Office 2013**.

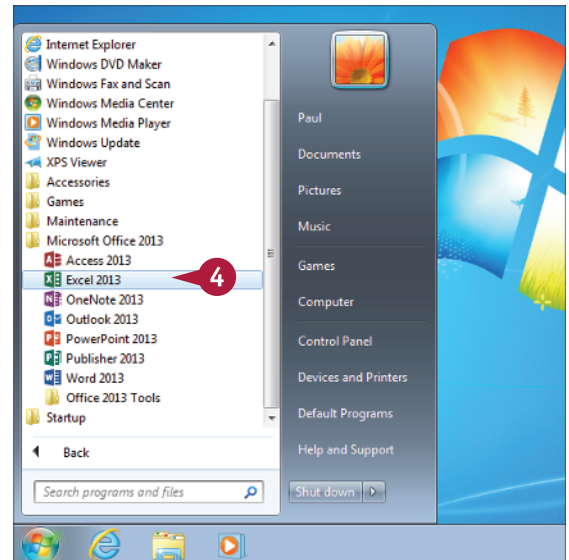


The Microsoft Office menu appears.

- 4 Click **Excel 2013**.

The Microsoft Excel window appears on the desktop.

Note: Click **Blank workbook** to open a new Excel file.



TIP

Are there faster methods I can use to start Excel?

Yes. After you have used Excel a few times in Windows 7, it should appear on the main Start menu in the list of your most-used programs. If so, you can click that icon to start the program. You can also add the Excel icon to the Start menu by following Steps 1 to 3 in the “Start Excel in Windows 7” subsection, right-clicking the **Excel 2013** icon, and then clicking **Pin to Start Menu**. If you are using Windows 8, you can right-click the **Excel 2013** tile and then click **Pin to Taskbar** to add the Excel icon to the desktop taskbar.

Tour the Excel Window

To get up to speed quickly with Excel, it helps to understand the various elements of the Excel window. These include standard window elements such as the title bar, window controls, and status bar; Office-specific elements such as the Ribbon, Quick Access Toolbar, and File tab; and Excel-specific elements such as the worksheet.

A Title Bar

The title bar displays the name of the current workbook.

B Quick Access Toolbar

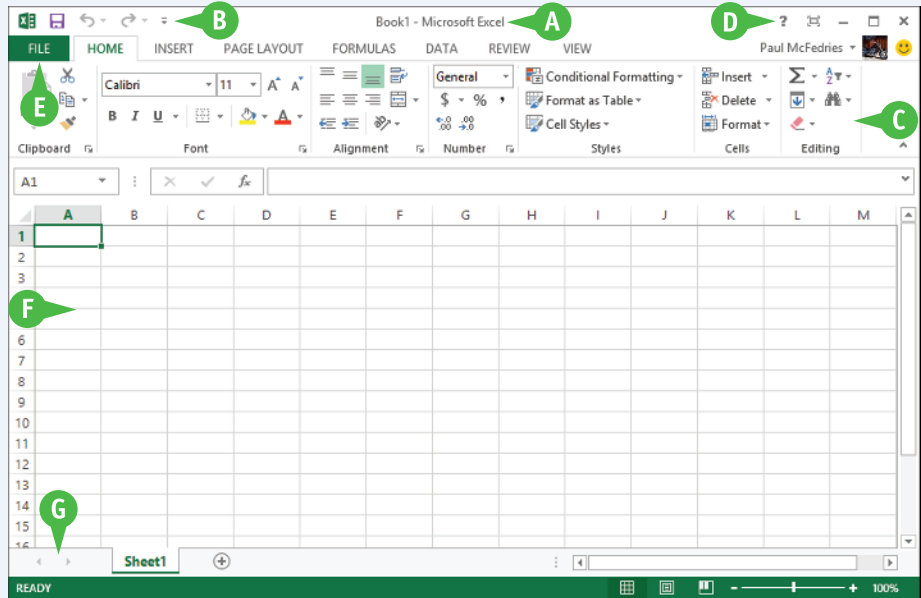
This area gives you one-click access to commands that you use often. To learn how to customize this toolbar, see “Customize the Quick Access Toolbar,” later in this chapter.

C Ribbon

This area gives you access to all the Excel commands, options, and features. To learn how to use this element, see the following section, “Work with the Excel Ribbon.”

D Workbook Window Controls

You use these controls to minimize, maximize, restore, and close the current workbook window.



E File Tab

Click this tab to access file-related commands, such as Save and Open.

F Worksheet

This area displays the current worksheet, and it is where you will do most of your Excel work.

G Status Bar

This area displays messages about the current status of Excel, the results of certain operations, and other information.

Work with the Excel Ribbon


You use the Ribbon element to access all the features, commands, and options in Excel. The Ribbon is organized into various tabs, such as File, Home, and Insert, and each tab contains a collection of controls that are related in some way. For example, the File tab contains controls related to working with files, such as opening, saving, and printing them. Similarly, the Insert tab contains controls related to inserting objects into a worksheet. Each tab usually includes buttons, lists, and check boxes.

There is no menu bar in Excel, so you do not use pull-down menus to access commands.

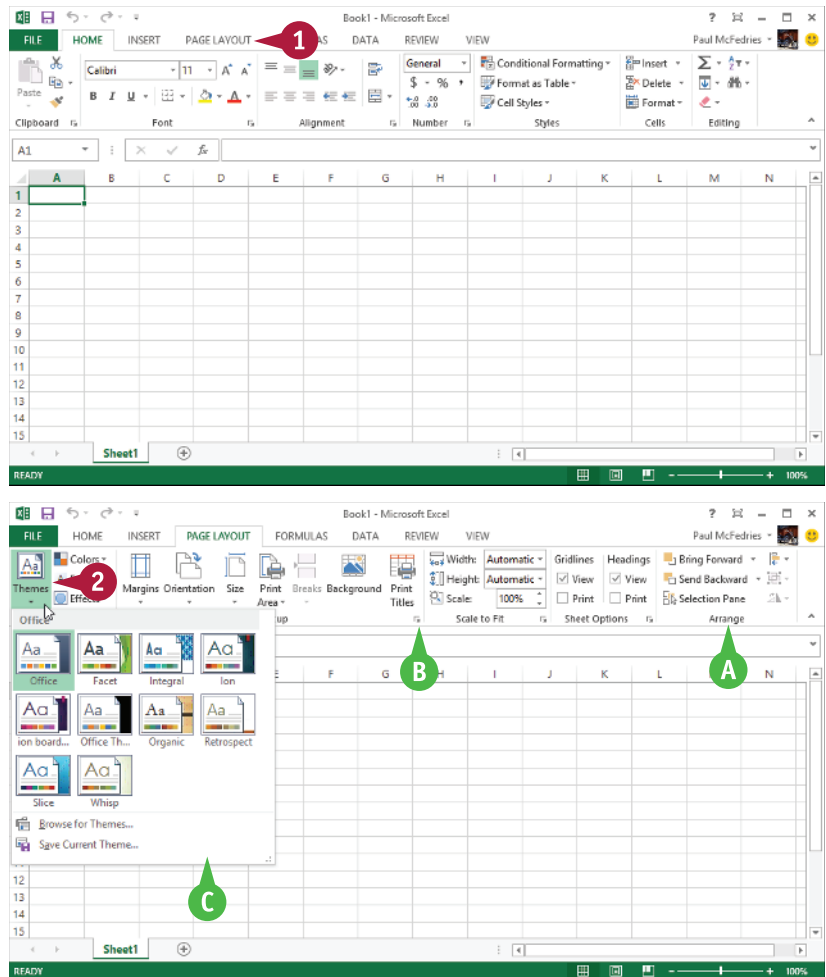
Work with the Excel Ribbon

- 1** Click the tab that contains the Excel feature you want to work with.

Excel displays the controls in the tab.

- A** Each tab is organized into groups of related controls, and the group names appear here.
- B** In many groups you can click the dialog box launcher button () to display a dialog box that contains group settings.
- 2** Click the control for the feature.
- C** If the control displays a list of options, click the option you want.

Excel runs the command or sets the option.






Work with the Excel Galleries

In the Excel Ribbon, a *gallery* is a collection of preset options that you can apply to the selected object in the worksheet. To get the most out of galleries, you need to know how they work.


Although some galleries are available all the time, in most cases you must select an object — such as a range of cells or a clip art image — before you work with a gallery.

Work with the Excel Galleries

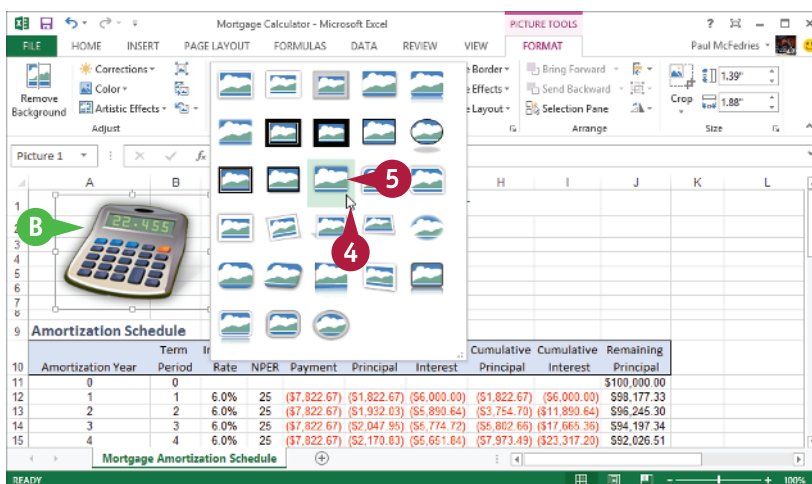
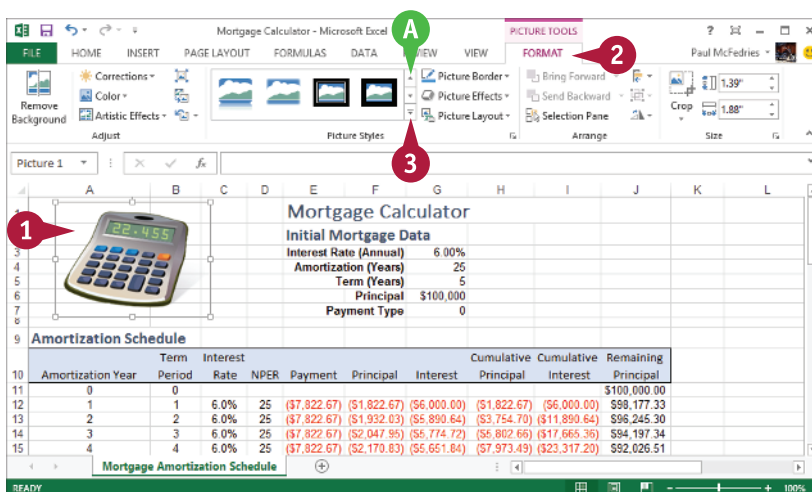
Work with a Gallery List

- 1 If necessary, click the object to which you want to apply an option from the gallery.
 - 2 Click the tab that contains the gallery you want to use.
 - 3 Click the gallery's **More** arrow ().
- A** You can also scroll through the gallery by clicking the **Down** () and **Up** () arrows.

Excel displays a list of the gallery's contents.

- 4 Move the mouse pointer () over a gallery option.
- B Excel displays a preview of the effect.
- 5 Click the gallery option you want to use.

Excel applies the gallery option to the selected object.



Work with a Drop-Down Gallery

1 If necessary, click the object to which you want to apply an option from the gallery.

2 Click the tab that contains the gallery you want to use.

3 Click the gallery's drop-down arrow (▾).

Excel displays a list of the gallery's contents.

4 If the gallery contains one or more subgalleries, click the subgallery you want to use.

Excel displays the subgallery's contents.

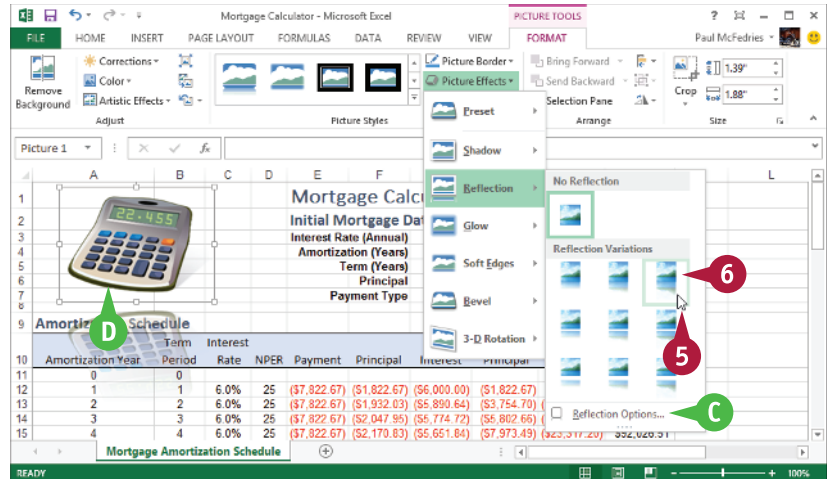
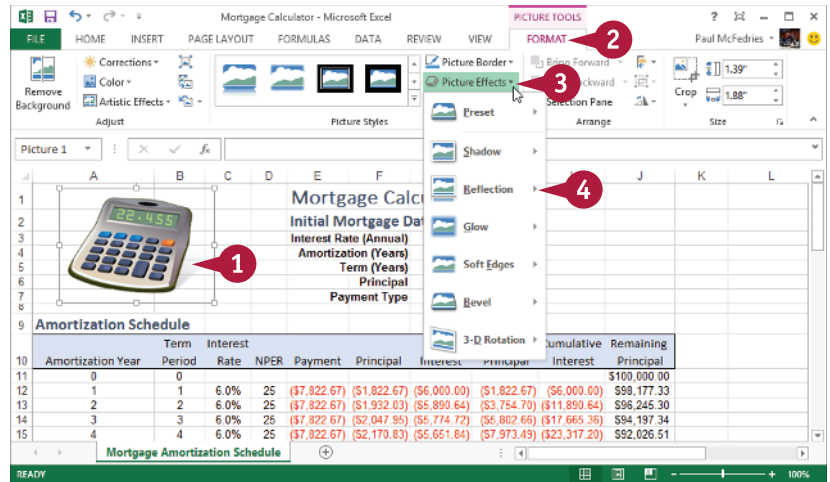
C If a gallery has commands that you can run, those commands appear at the bottom of the gallery menu.

5 Move the mouse over a gallery option.

D Excel displays a preview of the effect.

6 Click the gallery option you want to use.

Excel applies the gallery option to the selected object.



TIP

If I find the gallery preview feature distracting, can I turn it off?

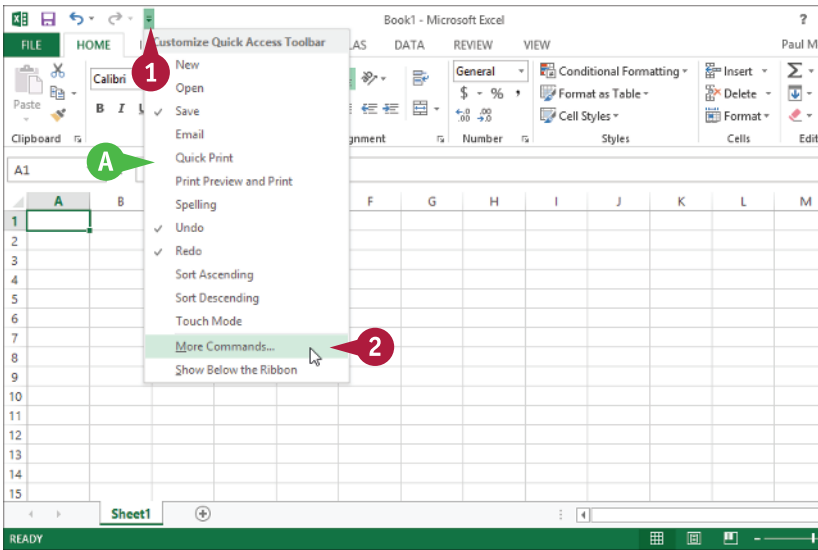
Yes. The Live Preview feature is often handy because it shows you exactly what will happen when you click a gallery option. However, as you move the mouse through the gallery, the previews can be distracting. To turn off Live Preview, click the **File** tab, click **Options**, click the **General** tab, click **Enable Live Preview** (☑ changes to ☐), and then click **OK**.

Customize the Quick Access Toolbar

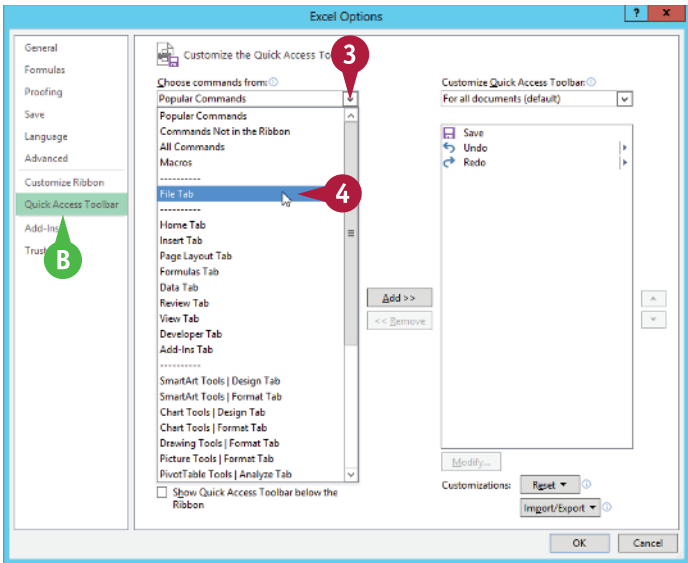
You can make Excel easier to use by customizing the Quick Access Toolbar to include the Excel commands you use most often. You run Quick Access Toolbar commands with a single click, so adding your favorite commands saves time because you no longer have to search for and click a command in the Ribbon. By default, the Quick Access Toolbar contains three buttons: Save, Undo, and Redo. However, with just a couple of clicks, you can also add common commands such as New and Open to the Quick Access Toolbar, as well as hundreds of other Excel commands.

Customize the Quick Access Toolbar

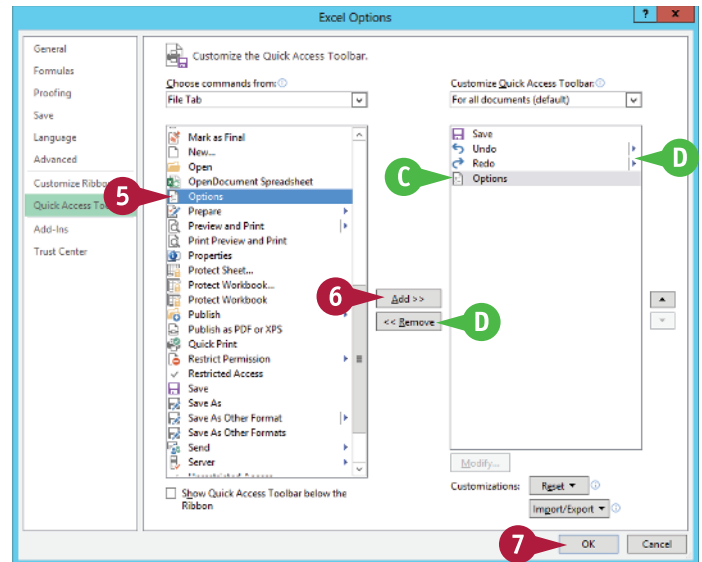
- 1 Click the **Customize Quick Access Toolbar** button ().
- A If you see the command you want, click it and skip the rest of the steps in this section.
- 2 Click **More Commands**.



- The Excel Options dialog box appears.
- B Excel automatically displays the Quick Access Toolbar tab.
 - 3 Click the **Choose commands from** from .
 - 4 Click the command category you want to use.

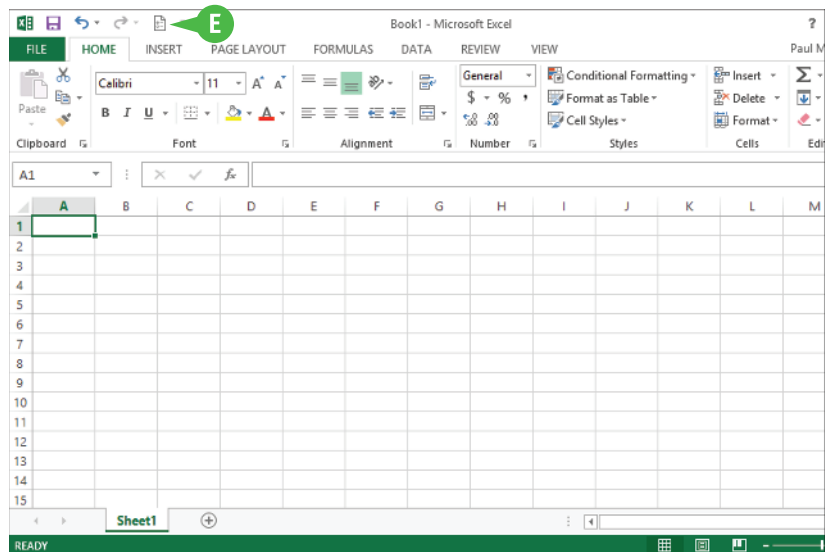


- 5 Click the command you want to add.
- 6 Click **Add**.
- C Excel adds the command.
- D To remove a command, click it and then click **Remove**.
- 7 Click **OK**.



- E Excel adds a button for the command to the Quick Access Toolbar.

Note: Another way to remove a command is to right-click the command and then click **Remove** from Quick Access Toolbar.



TIPS

Can I get more room on the Quick Access Toolbar to show more buttons?

Yes, you can increase the space available to the Quick Access Toolbar by moving it below the Ribbon. This gives the toolbar the full width of the Excel window, so you can add many more buttons. Click the **Customize Quick Access Toolbar** button () and then click **Show Below the Ribbon**.

Is there a faster way to add buttons to the Quick Access Toolbar?

Yes. If the command you want to add appears on the Ribbon, you can add a button for the command directly from the Ribbon. Click the Ribbon tab that contains the command, right-click the command, and then click **Add to Quick Access Toolbar**. Excel inserts a button for the command on the Quick Access Toolbar.

Customize the Ribbon

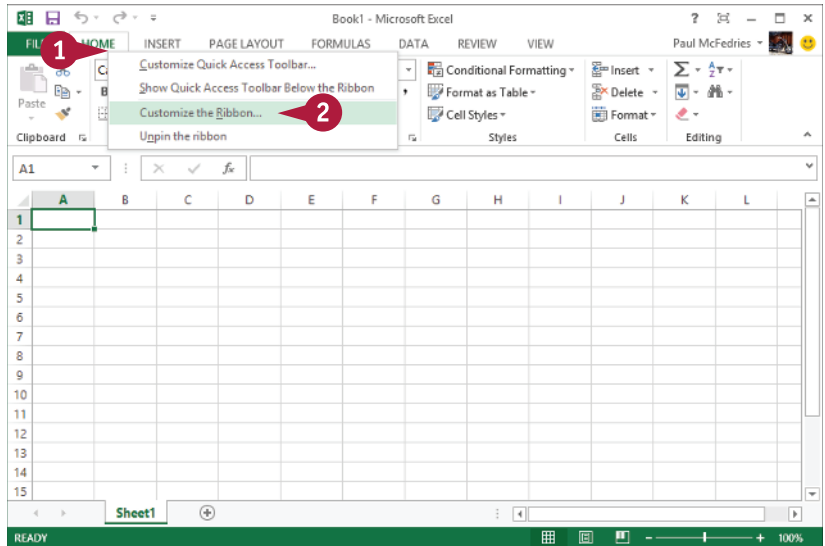
You can improve your Excel productivity by customizing the Ribbon with extra commands that you use frequently. The Ribbon is a handy tool because it enables you to run Excel commands with just a few clicks of the mouse. However, the Ribbon does not include every Excel command. If there is a command that you use frequently, you should add it to the Ribbon for easy access.

To add a new command to the Ribbon, you must first create a new tab or a new group within an existing tab, and then add the command to the new tab or group.

Customize the Ribbon

Display the Customize Ribbon Tab

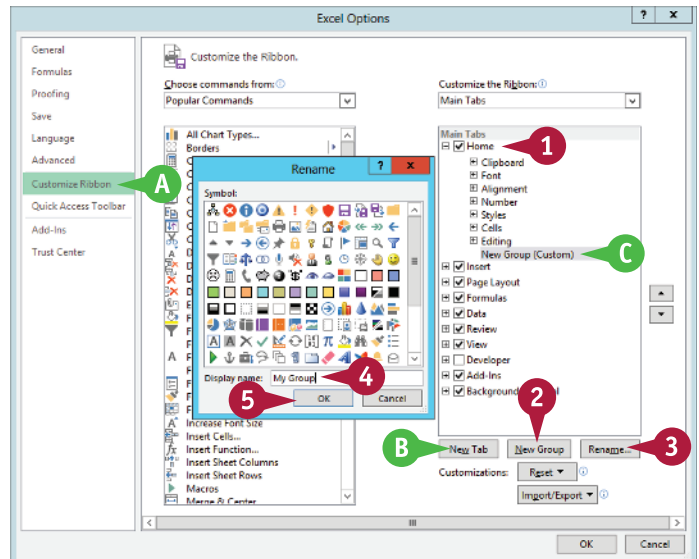
- 1 Right-click any part of the Ribbon.
- 2 Click **Customize the Ribbon**.



Add a New Tab or Group

The Excel Options dialog box appears.

- A Excel automatically displays the Customize Ribbon tab.
- 1 Click the tab you want to customize.
- B You can also click **New Tab** to create a custom tab.
- 2 Click **New Group**.
- C Excel adds the group.
- 3 Click **Rename**.
- 4 Type a name for the group.
- 5 Click **OK**.



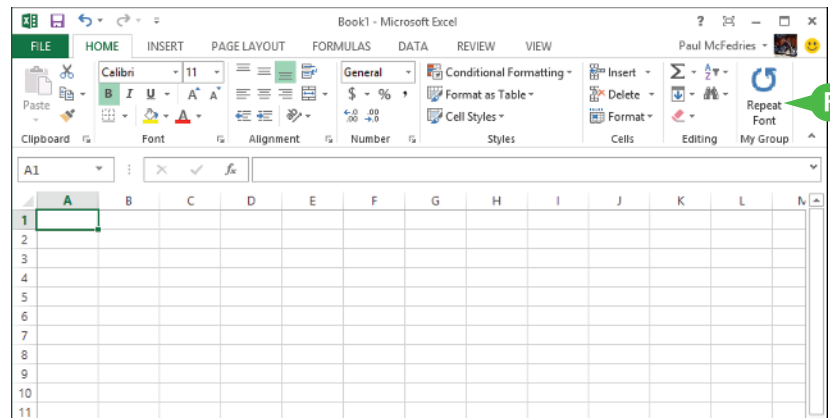
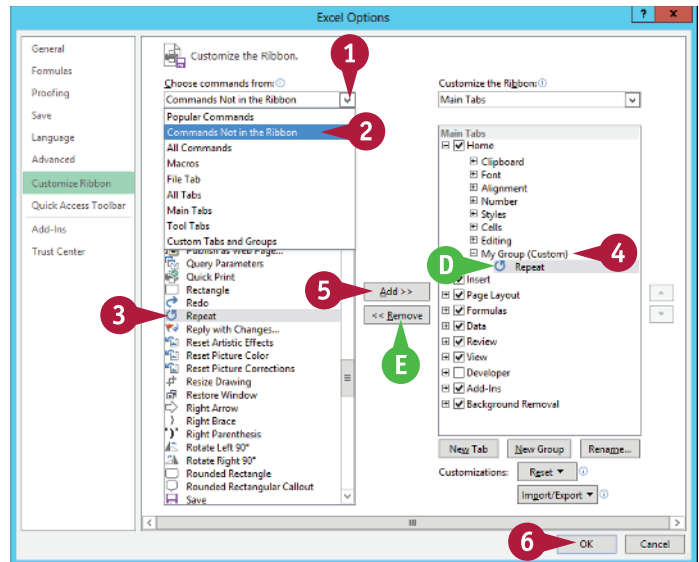
Add a Command

- 1 Click the **Choose commands from** ▾.
- 2 Click the command category you want to use.
- 3 Click the command you want to add.
- 4 Click the custom group or tab you want to use.
- 5 Click **Add**.
- 6 Click **OK**.

D Excel adds the command.

E To remove a custom command, click it and then click **Remove**.

F Excel adds the new group and command to the Ribbon.



TIPS

Can I customize the tabs that appear only when I select an Excel object?

Yes. Excel calls these *tool tabs*, and you can add custom groups and commands to any tool tab. Right-click any part of the Ribbon and then click **Customize the Ribbon** to display the Excel Options dialog box with the **Customize Ribbon** tab displayed. Click the **Customize the Ribbon** ▾ and then click **Tool Tabs**. Click the tab you want and then follow the steps in this section to customize it.

How do I restore the Ribbon to its default configuration?

Right-click any part of the Ribbon and then click **Customize the Ribbon** to display the Excel Options dialog box with the **Customize Ribbon** tab displayed. To restore a tab, click the tab, click **Reset**, and then click **Restore only selected Ribbon tab**. To remove all customizations, click **Reset** and then click **Restore all customizations**.


Change the View

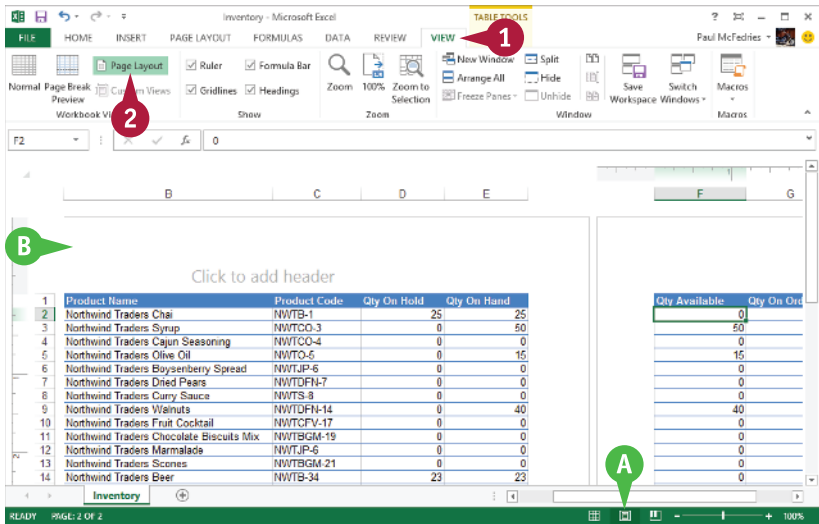
You can adjust Excel to suit what you are currently working on by changing the view to match your current task. The view determines how Excel displays your workbook.

Excel offers three different views: Normal, which is useful for building and editing worksheets; Page Layout, which displays worksheets as printed pages; and Page Break Preview, which displays the page breaks as blue lines, as described in the first Tip in this section.


Change the View

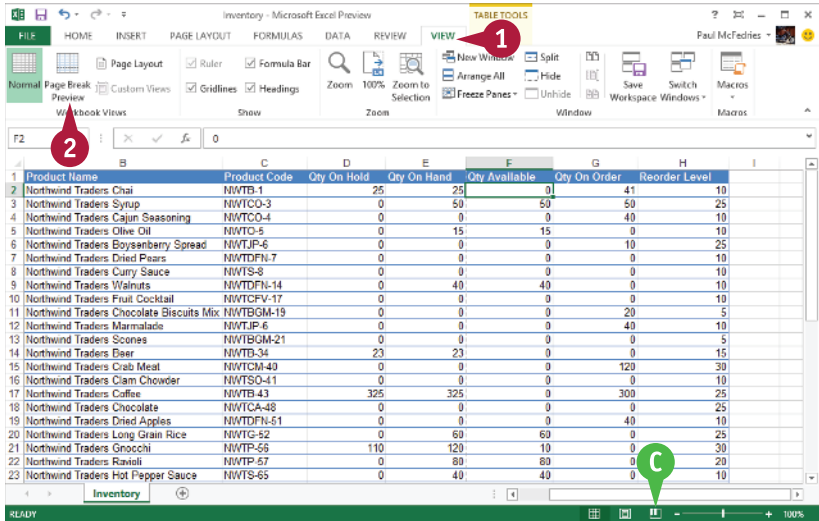
Switch to Page Layout View

- 1 Click the **View** tab.
- 2 Click **Page Layout**.
- A You can also click the **Page Layout** button ().
- B Excel switches to Page Layout view.

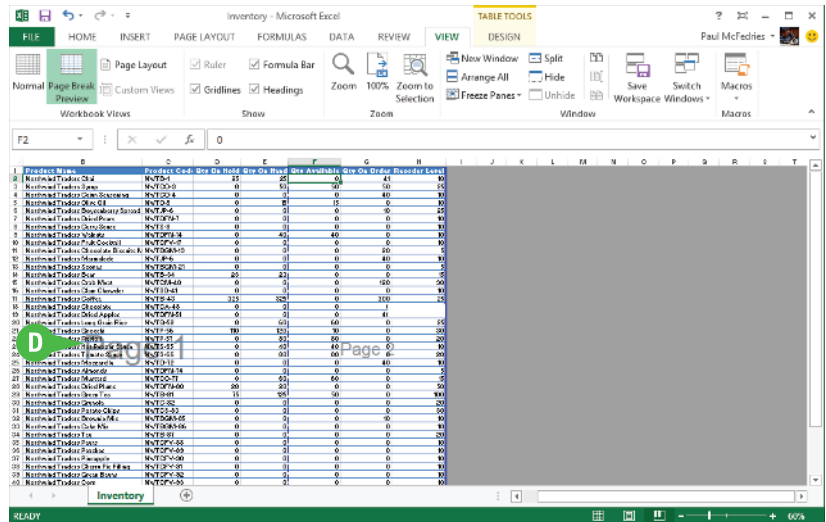


Switch to Page Break Preview

- 1 Click the **View** tab.
- 2 Click **Page Break Preview**.
- C You can also click the **Page Break Preview** button ().




- D Excel switches to Page Break Preview.

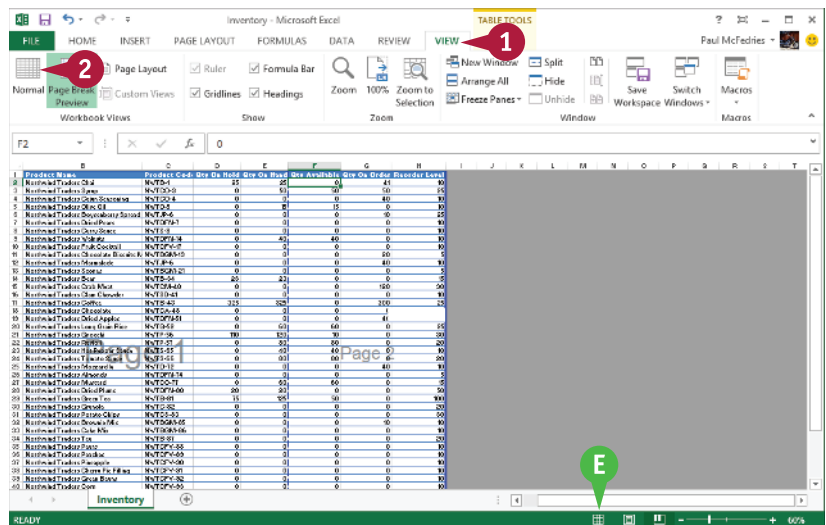


Switch to Normal View

- 1 Click the **View** tab.
- 2 Click **Normal**.

- E You can also click the **Normal** button ().

Excel switches to Normal view.





TIPS

What does Page Break Preview do?

In Excel, a *page break* is a position within a worksheet where a new page begins when you print the worksheet. When you switch to Page Break Preview, Excel displays the page breaks as blue lines. If a page break occurs in a bad position — for example, the page break includes the headings from a range, but not the cells below the headings — you can use your mouse to click and drag the page breaks to new positions.

Can I change the view to make my workbook take up the entire screen?

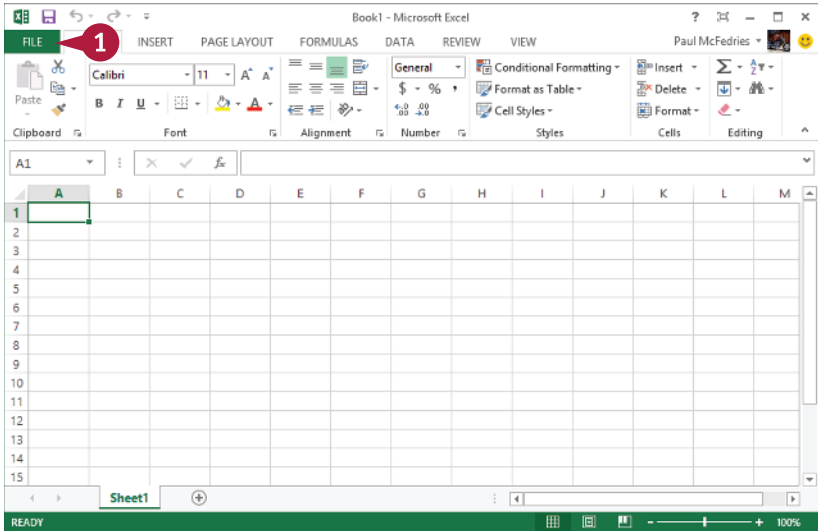
Yes, you can switch the workbook to Full Screen mode by clicking the **Full Screen Mode** icon () in the upper-right corner of the window. Full Screen mode removes many of the Excel window features, including the Ribbon, Quick Access Toolbar, formula bar, and status bar. To exit Full Screen mode, click the horizontal strip at the top of the screen and then click .

Configure Excel Options

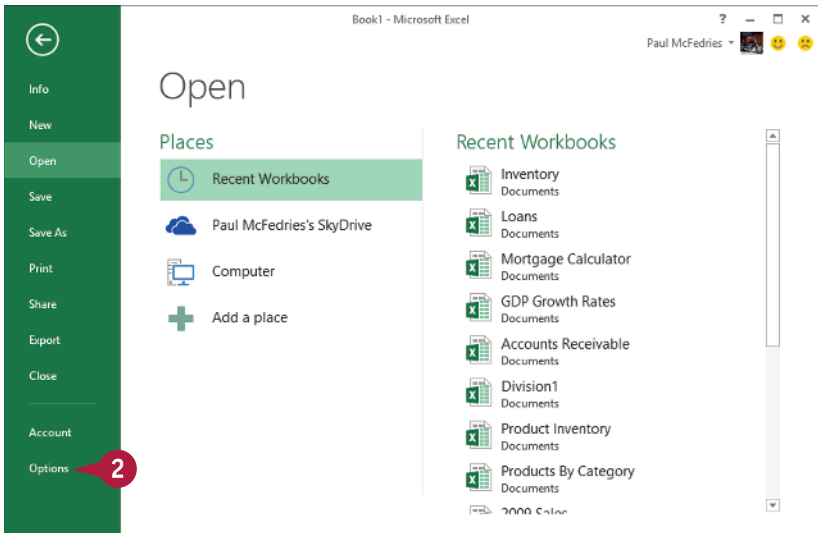
You can customize Excel to suit the way you work by configuring the Excel options. These options are dialog box controls such as check boxes, option buttons, and lists that enable you to configure many aspects of Excel. To use these options, you must know how to display the Excel Options dialog box. The Excel Options dialog box is divided into several tabs, such as General, Formulas, Save, and Customize Ribbon. Each tab contains a collection of related options.

Configure Excel Options

1 Click the **File** tab.



2 Click **Options**.



The Excel Options dialog box appears.

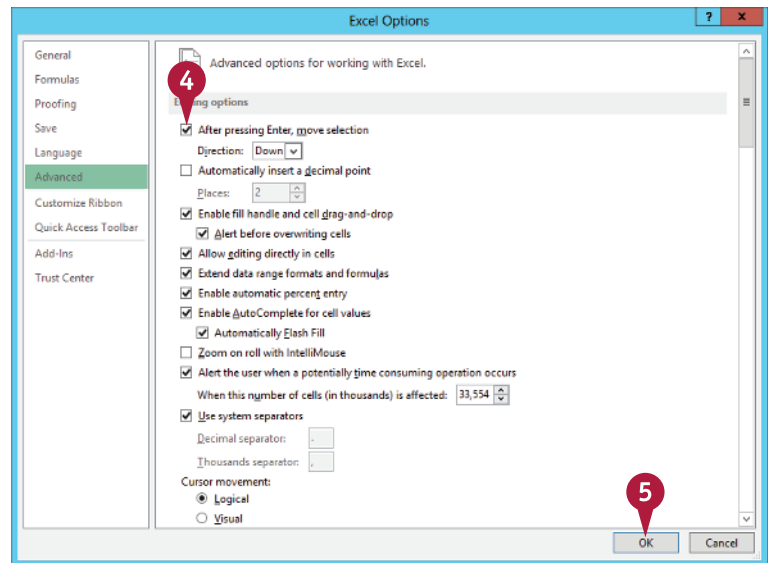
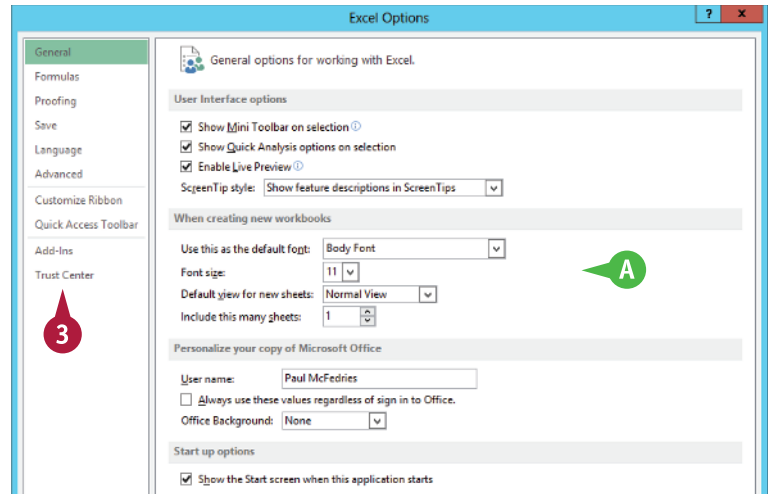
- 3 Click a tab on the left side of the dialog box to choose the configuration category you want to work with.

- A The controls that appear on the right side of the dialog box change according to the tab you select.

- 4 Use the controls on the right side of the dialog box to configure the options you want to change.

- 5 Click **OK**.

Excel puts the new options into effect.



TIPS

Are there faster methods I can use to open the Excel Options dialog box?

Yes. Some features of the Excel interface offer shortcut methods that get you to the Excel Options dialog box faster. For example, right-click the Ribbon and then click **Customize Ribbon** to open the Excel Options dialog box with the Customize Ribbon tab displayed. From the keyboard, you can open the Excel Options dialog box by pressing **Alt + F** and then pressing **T**.

How do I know what each option does?

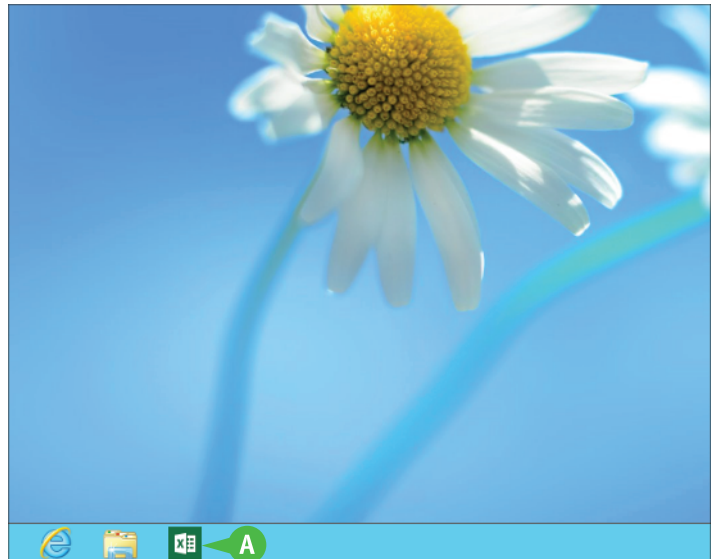
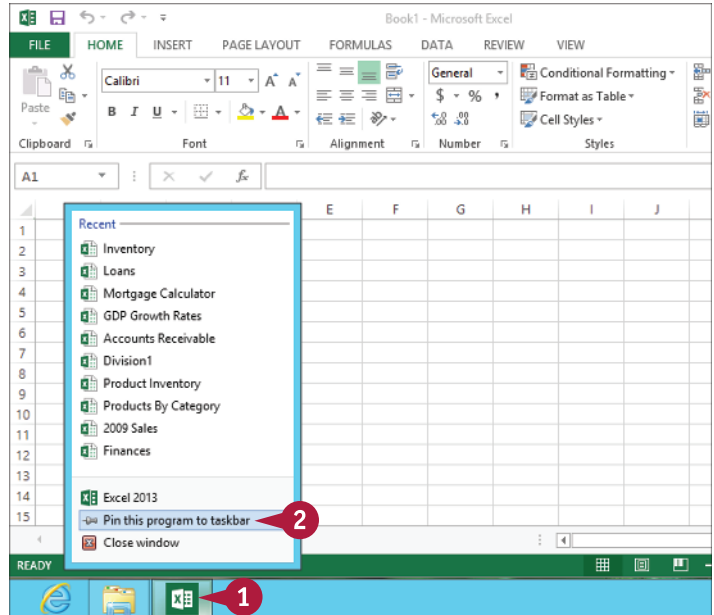
Excel offers pop-up descriptions of some — but, unfortunately, not all — of the options. If you see a small *i* with a circle around it to the right of the option name, it means pop-up help is available for that option. Hover the mouse over the option and Excel displays a pop-up description of the option after a second or two.

Add Excel to the Windows Taskbar

If you use Excel regularly, you can start the program with just a single mouse click by adding an icon for Excel to the Windows taskbar. When you install Excel, the setup program pins a tile for Excel to the Windows 8 Start screen. However, that is helpful only if you use the Start screen regularly. If you use the desktop more often, you might prefer to have Excel just a single click away. You can achieve this by pinning Excel to the taskbar. The following instructions assume that you are running Excel in Windows 8, but you can also pin Excel to the taskbar if you are using Windows 7.

Add Excel to the Windows Taskbar

- 1 With Excel running, right-click the Excel icon in the taskbar.
 - 2 Click **Pin this program to taskbar**.
- A After you quit Excel, the icon remains on the taskbar, and you can now launch Excel by clicking the icon.

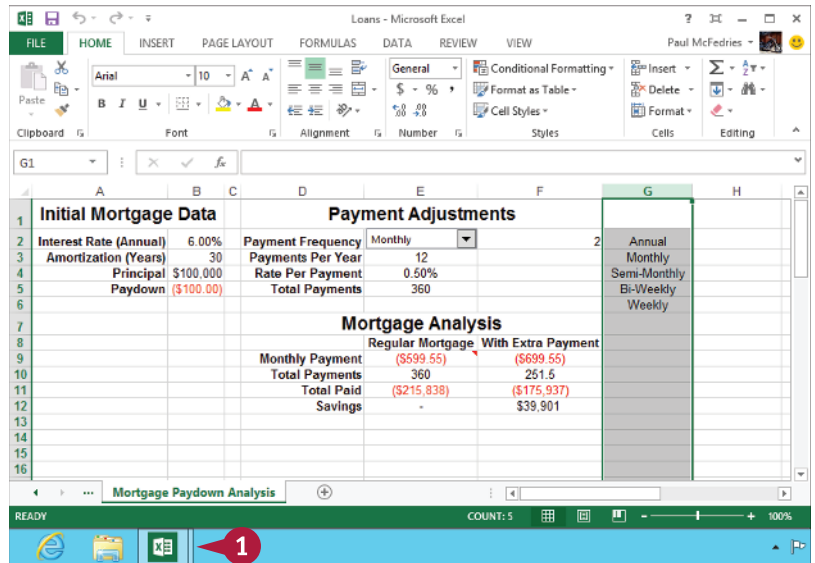


Quit Excel

When you have finished your work with Excel, you should shut down the program. This reduces clutter on the desktop and in the taskbar, and it also conserves memory and other system resources. When you quit Excel, the program checks your open workbooks to see if any of them have unsaved changes. If Excel detects a workbook that has unsaved changes, it prompts you to save the file. This is a very important step because it prevents you from losing work, so be sure to save your changes when Excel prompts you.

Quit Excel

- 1 Right-click the Excel icon in the taskbar.



- 2 Click **Close all windows**.

Note: If you have only one Excel workbook open, click **Close window** instead.

Note: If you have any open documents with unsaved changes, Excel prompts you to save those changes.

