Getting Started with Excel 2013

CASE ▶ You have been hired as an assistant at Quest Specialty Travel (QST), a company offering tours that immerse travelers in regional culture. You report to Grace Wong, the vice president of finance. As Grace's assistant, you create worksheets to analyze data from various divisions of the company, so you can help her make sound decisions on company expansion and investments.

Unit Objectives

After completing this unit, you will be able to:

- Understand spreadsheet software
- Identify Excel 2013 window components
- Understand formulas
- Enter labels and values and use the AutoSum button

- Edit cell entries
- Enter and edit a simple formula
- Switch worksheet views
- Choose print options

Files You Will Need

EX A-1.xlsx
EX A-2.xlsx
EX A-3.xlsx
EX A-4.xlsx
EX A-5.xlsx

Understand Spreadsheet Software

Microsoft Excel is the electronic spreadsheet program within the Microsoft Office suite. An **electronic spreadsheet** is an application you use to perform numeric calculations and to analyze and present numeric data. One advantage of a spreadsheet program over pencil and paper is that your calculations are updated automatically, so you can change entries without having to manually recalculate. **TABLE A-1** shows some of the common business tasks people accomplish using Excel. In Excel, the electronic spreadsheet you work in is called a **worksheet**, and it is contained in a file called a **workbook**, which has the file extension .xlsx. **CASE** *At Quest Specialty Travel, you use Excel extensively to track finances and manage corporate data.*

DETAILS

When you use Excel, you have the ability to:

• **Enter data quickly and accurately**

With Excel, you can enter information faster and more accurately than with pencil and paper. **FIGURE A-1** shows a payroll worksheet created using pencil and paper. **FIGURE A-2** shows the same worksheet created using Excel. Equations were added to calculate the hours and pay. You can use Excel to recreate this information for each week by copying the worksheet's structure and the information that doesn't change from week to week, then entering unique data and formulas for each week.

• **Recalculate data easily**

Fixing typing errors or updating data is easy in Excel. In the payroll example, if you receive updated hours for an employee, you just enter the new hours and Excel recalculates the pay.

• **Perform what-if analysis**

The ability to change data and quickly view the recalculated results gives you the power to make informed business decisions. For instance, if you're considering raising the hourly rate for an entry-level tour guide from $12.50 to $15.00, you can enter the new value in the worksheet and immediately see the impact on the overall payroll as well as on the individual employee. Any time you use a worksheet to ask the question "What if?" you are performing **what-if analysis**. Excel also includes a Scenario Manager where you can name and save different what-if versions of your worksheet.

• **Change the appearance of information**

Excel provides powerful features, such as the Quick Analysis tool, for making information visually appealing and easier to understand. Format text and numbers in different fonts, colors, and styles to make it stand out.

• **Create charts**

Excel makes it easy to create charts based on worksheet information. Charts are updated automatically in Excel whenever data changes. The worksheet in **FIGURE A-2** includes a 3-D pie chart.

• **Share information**

It's easy for everyone at QST to collaborate in Excel using the company intranet, the Internet, or a network storage device. For example, you can complete the weekly payroll that your boss, Grace Wong, started creating. You can also take advantage of collaboration tools such as shared workbooks, so that multiple people can edit a workbook simultaneously.

• **Build on previous work**

Instead of creating a new worksheet for every project, it's easy to modify an existing Excel worksheet. When you are ready to create next week's payroll, you can open the file for last week's payroll, save it with a new filename, and modify the information as necessary. You can also use predesigned, formatted files called **templates** to create new worksheets quickly. Excel comes with many templates that you can customize.

FIGURE A-1: Traditional paper worksheet

```
Quest Specialty Travel
Trip Advisor Division Payroll Calculator

                                               Reg      O/T      Gross
Name                  Hours   O/T Hrs  Hrly Rate  Pay      Pay      Pay
Brueghel, Pieter       40       4      16.50    660–     132–     792–
Cortona, Livia         35       0      11–      385–     0–       385–
Klimt, Gustave         40       2      13–      520–     52–      572–
Le Pen, Jean-Marie     29       0      15–      435–     0–       435–
Martinez, Juan         37       0      13–      481–     0–       461–
Mioshi, Keiko          39       0      20.50    799.50   0–       799.50
Sherwood, Burton       40       0      16.50    660–     0–       660–
Strano, Riccardo       40       8      16–      640–     256–     896–
Wadsworth, Alicia      40       5      13–      520–     130–     650–
Yamamoto, Johji        38       0      15–      570–     0–       570–
```

FIGURE A-2: Excel worksheet

3-D pie chart
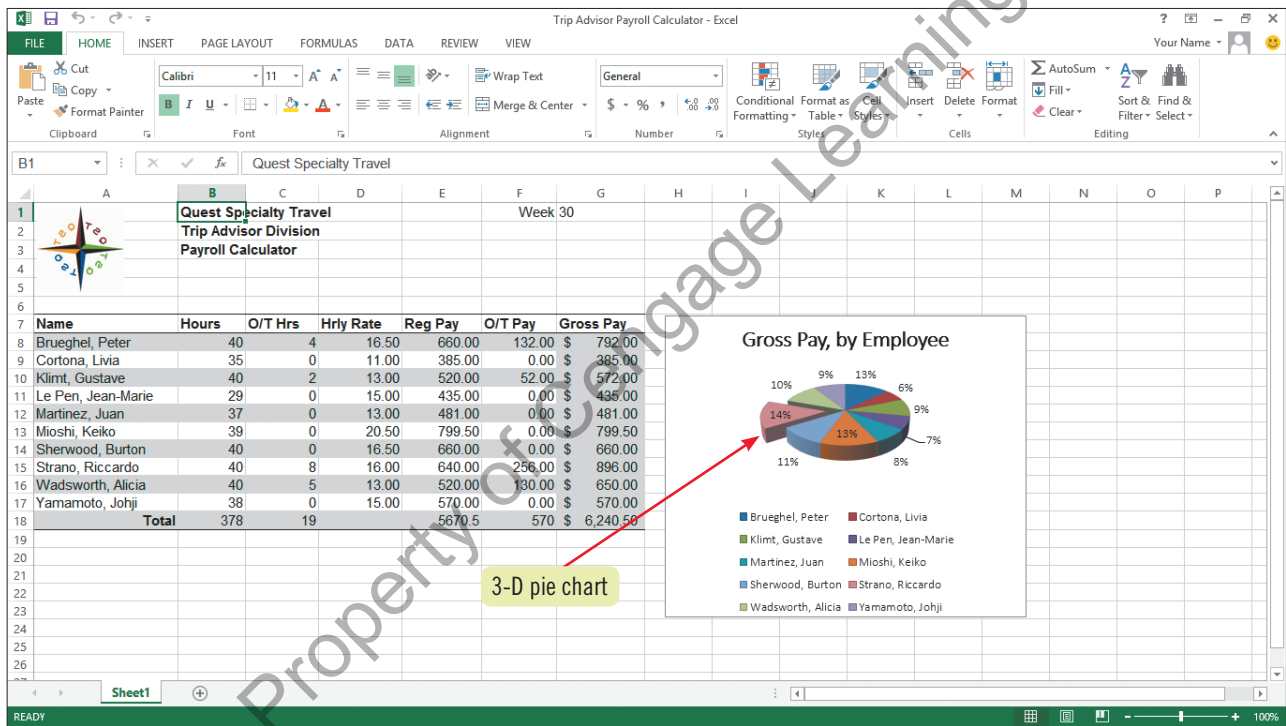
TABLE A-1: Business tasks you can accomplish using Excel

you can use spreadsheets to	by
Perform calculations	Adding formulas and functions to worksheet data; for example, adding a list of sales results or calculating a car payment
Represent values graphically	Creating charts based on worksheet data; for example, creating a chart that displays expenses
Generate reports	Creating workbooks that combine information from multiple worksheets, such as summarized sales information from multiple stores
Organize data	Sorting data in ascending or descending order; for example, alphabetizing a list of products or customer names, or prioritizing orders by date
Analyze data	Creating data summaries and short lists using PivotTables or AutoFilters; for example, making a list of the top 10 customers based on spending habits
Create what-if data scenarios	Using variable values to investigate and sample different outcomes, such as changing the interest rate or payment schedule on a loan

Identify Excel 2013 Window Components

To start Excel, Microsoft Windows must be running. Similar to starting any program in Office, you can use the Start screen thumbnail on the Windows taskbar, the Start button on your keyboard, or you may have a shortcut on your desktop you prefer to use. If you need additional assistance, ask your instructor or technical support person. **CASE** ▶ *You decide to start Excel and familiarize yourself with the worksheet window.*

STEPS

1. **Start Excel, click Open Other Workbooks on the navigation bar, click Computer, then click Browse to open the Open dialog box**

2. **In the Open dialog box, navigate to the location where you store your Data Files, click EX A-1.xlsx, click Open**

   The file opens in the Excel window.

3. **Click the FILE tab, click Save As on the navigation bar, click Computer, then click Browse to open the Save As dialog box**

4. **In the Save As dialog box, navigate to the location where you store your Data Files if necessary, type EX A-Trip Advisor Payroll Calculator in the File name text box, then click Save**

   Using **FIGURE A-3** as a guide, identify the following items:

   • The **Name box** displays the active cell address. "A1" appears in the Name box.
   • The **formula bar** allows you to enter or edit data in the worksheet.
   • The **worksheet window** contains a grid of columns and rows. Columns are labeled alphabetically and rows are labeled numerically. The worksheet window can contain a total of 1,048,576 rows and 16,384 columns. The intersection of a column and a row is called a **cell**. Cells can contain text, numbers, formulas, or a combination of all three. Every cell has its own unique location or **cell address**, which is identified by the coordinates of the intersecting column and row. The column and row indicators are shaded to make identifying the cell address easy.
   • The **cell pointer** is a dark rectangle that outlines the cell you are working in. This cell is called the **active cell**. In **FIGURE A-3**, the cell pointer outlines cell A1, so A1 is the active cell. The column and row headings for the active cell are highlighted, making it easier to locate.
   • **Sheet tabs** below the worksheet grid let you switch from sheet to sheet in a workbook. By default, a workbook file contains one worksheet—but you can have as many as 255, in a workbook. The New sheet button to the right of Sheet 1 allows you to add worksheets to a workbook. **Sheet tab scrolling buttons** let you navigate to additional sheet tabs when available.
   • You can use the **scroll bars** to move around in a worksheet that is too large to fit on the screen at once.
   • The **status bar** is located at the bottom of the Excel window. It provides a brief description of the active command or task in progress. **The mode indicator** in the lower-left corner of the status bar provides additional information about certain tasks.

5. **Click cell A4**

   Cell A4 becomes the active cell. To activate a different cell, you can click the cell or press the arrow keys on your keyboard to move to it.
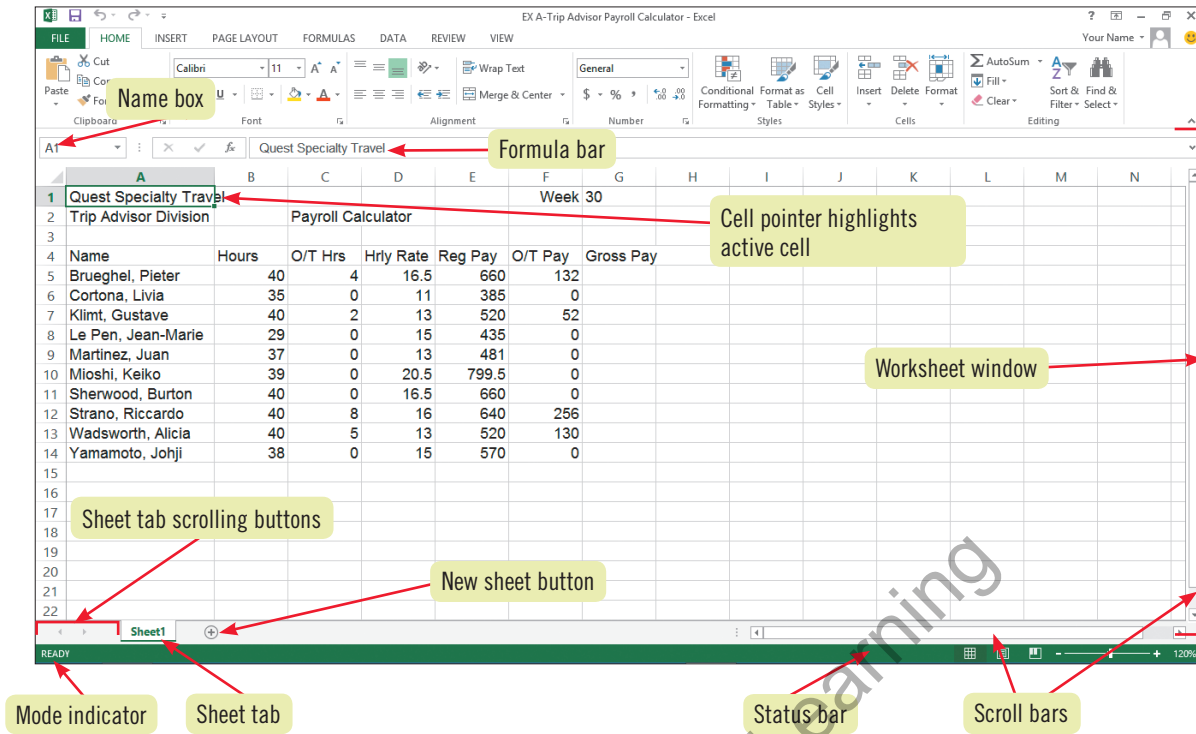
6. **Click cell B5, press and hold the mouse button, drag ⬚ to cell B14, then release the mouse button**

   You selected a group of cells and they are highlighted, as shown in **FIGURE A-4**. A selection of two or more cells such as B5:B14 is called a **range**; you select a range when you want to perform an action on a group of cells at once, such as moving them or formatting them. When you select a range, the status bar displays the average, count (or number of items selected), and sum of the selected cells as a quick reference.
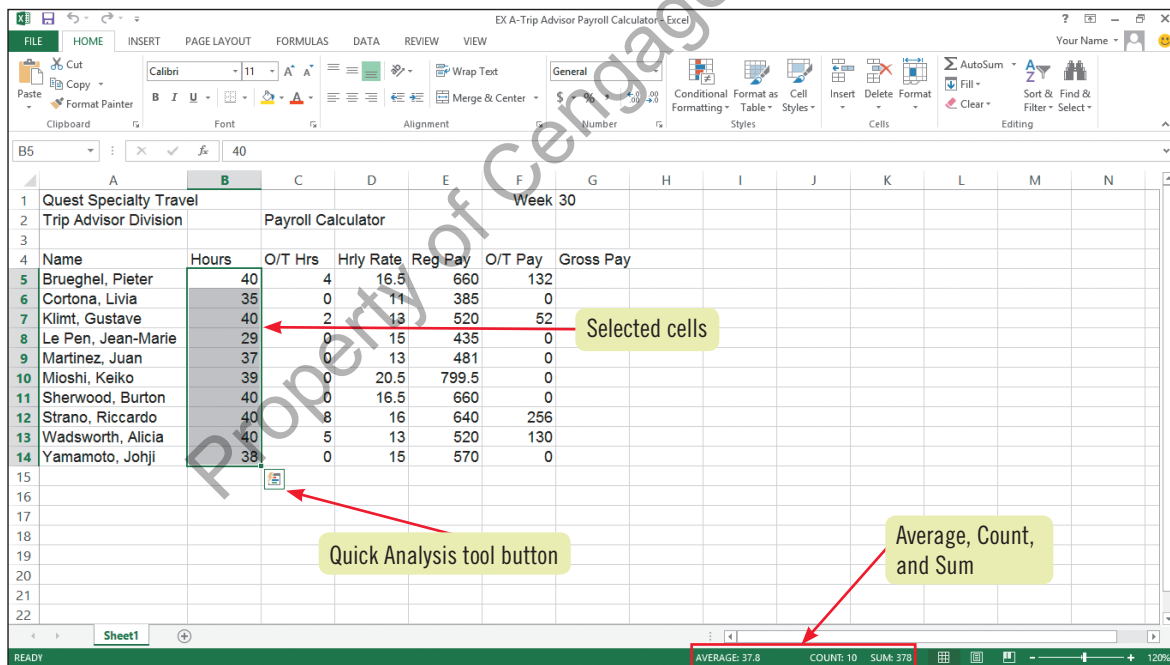
FIGURE A-3: Open workbook

Labels on figure: Name box, Formula bar, Cell pointer highlights active cell, Worksheet window, Sheet tab scrolling buttons, New sheet button, Mode indicator, Sheet tab, Status bar, Scroll bars

	A	B	C	D	E	F	G
1	Quest Specialty Travel					Week 30	
2	Trip Advisor Division		Payroll Calculator				
3							
4	Name	Hours	O/T Hrs	Hrly Rate	Reg Pay	O/T Pay	Gross Pay
5	Brueghel, Pieter	40	4	16.5	660	132	
6	Cortona, Livia	35	0	11	385	0	
7	Klimt, Gustave	40	2	13	520	52	
8	Le Pen, Jean-Marie	29	0	15	435	0	
9	Martinez, Juan	37	0	13	481	0	
10	Mioshi, Keiko	39	0	20.5	799.5	0	
11	Sherwood, Burton	40	0	16.5	660	0	
12	Strano, Riccardo	40	8	16	640	256	
13	Wadsworth, Alicia	40	5	13	520	130	
14	Yamamoto, Johji	38	0	15	570	0	

FIGURE A-4: Selected range

Labels on figure: Selected cells, Quick Analysis tool button, Average, Count, and Sum

	A	B	C	D	E	F	G
1	Quest Specialty Travel					Week 30	
2	Trip Advisor Division		Payroll Calculator				
3							
4	Name	Hours	O/T Hrs	Hrly Rate	Reg Pay	O/T Pay	Gross Pay
5	Brueghel, Pieter	40	4	16.5	660	132	
6	Cortona, Livia	35	0	11	385	0	
7	Klimt, Gustave	40	2	13	520	52	
8	Le Pen, Jean-Marie	29	0	15	435	0	
9	Martinez, Juan	37	0	13	481	0	
10	Mioshi, Keiko	39	0	20.5	799.5	0	
11	Sherwood, Burton	40	0	16.5	660	0	
12	Strano, Riccardo	40	8	16	640	256	
13	Wadsworth, Alicia	40	5	13	520	130	
14	Yamamoto, Johji	38	0	15	570	0	

AVERAGE: 37.8   COUNT: 10   SUM: 378

Using SkyDrive and Web Apps

If you have a free Microsoft account, you can save your Excel files to SkyDrive, a free cloud-based service from Microsoft. When you save files to SkyDrive, you can access them on other devices–such as a tablet or smart phone. SkyDrive is available as an app on smart phones, which makes access very easy. You can open files to view them on any device and you can even make edits to them using **Office Web Apps**, which are simplified versions of the apps found in the Office 2013 suite. Because the Web Apps are online, they take up no computer disk space, and you can use them on any Internet-connected device. You can find more information in the "Working in the Cloud" appendix.

Excel 2013

Understand Formulas

Excel is a truly powerful program because users at every level of mathematical expertise can make calculations with accuracy. To do so, you use formulas. A **formula** is an equation in a worksheet. You use formulas to make calculations as simple as adding a column of numbers, or as complex as creating profit-and-loss projections for a global corporation. To tap into the power of Excel, you should understand how formulas work. **CASE** *Managers at QST use the Trip Advisor Payroll Calculator workbook to keep track of employee hours prior to submitting them to the Payroll Department. You'll be using this workbook regularly, so you need to understand the formulas it contains and how Excel calculates the results.*

STEPS

1. **Click cell E5**

   The active cell contains a formula, which appears on the formula bar. All Excel formulas begin with the equal sign (=). If you want a cell to show the result of adding 4 plus 2, the formula in the cell would look like this: =4+2. If you want a cell to show the result of multiplying two values in your worksheet, such as the values in cells B5 and D5, the formula would look like this: =B5*D5, as shown in **FIGURE A-5**. While you're entering a formula in a cell, the cell references and arithmetic operators appear on the formula bar. See **TABLE A-2** for a list of commonly used arithmetic operators. When you're finished entering the formula, you can either click the Enter button on the formula bar or press [Enter].

2. **Click cell F5**

   An example of a more complex formula is the calculation of overtime pay. At QST, overtime pay is calculated at twice the regular hourly rate times the number of overtime hours. The formula used to calculate overtime pay for the employee in row 5 is:

   O/T Hrs times (2 times Hrly Rate)

   In the worksheet cell, you would enter: =C5*(2*D5), as shown in **FIGURE A-6**. The use of parentheses creates groups within the formula and indicates which calculations to complete first—an important consideration in complex formulas. In this formula, first the hourly rate is multiplied by 2, because that calculation is within the parentheses. Next, that value is multiplied by the number of overtime hours. Because overtime is calculated at twice the hourly rate, managers are aware that they need to closely watch this expense.

DETAILS

In creating calculations in Excel, it is important to:

• **Know where the formulas should be**

   An Excel formula is created in the cell where the formula's results should appear. This means that the formula calculating Gross Pay for the employee in row 5 will be entered in cell G5.

• **Know exactly what cells and arithmetic operations are needed**

   Don't guess; make sure you know exactly what cells are involved before creating a formula.

• **Create formulas with care**

   Make sure you know exactly what you want a formula to accomplish before it is created. An inaccurate formula may have far-reaching effects if the formula or its results are referenced by other formulas, as shown in the payroll example in **FIGURE A-6**.

• **Use cell references rather than values**

   The beauty of Excel is that whenever you change a value in a cell, any formula containing a reference to that cell is automatically updated. For this reason, it's important that you use cell references in formulas, rather than actual values, whenever possible.
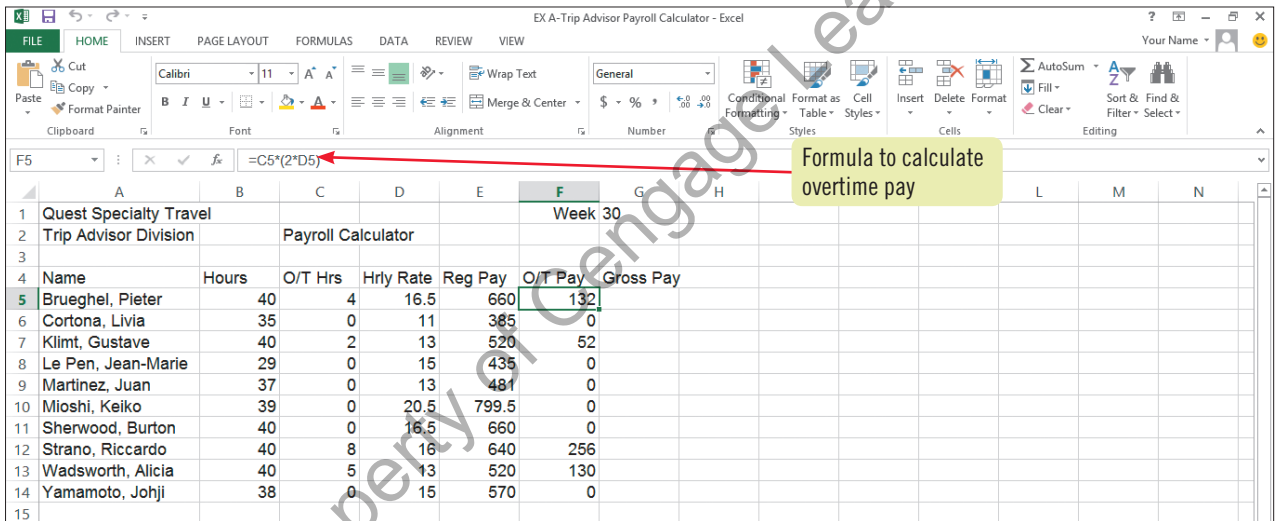
• **Determine what calculations will be needed**

   Sometimes it's difficult to predict what data will be needed within a worksheet, but you should try to anticipate what statistical information may be required. For example, if there are columns of numbers, chances are good that both column and row totals should be present.

FIGURE A-5: Viewing a formula

Formula displays in formula bar

Calculated value displays in cell
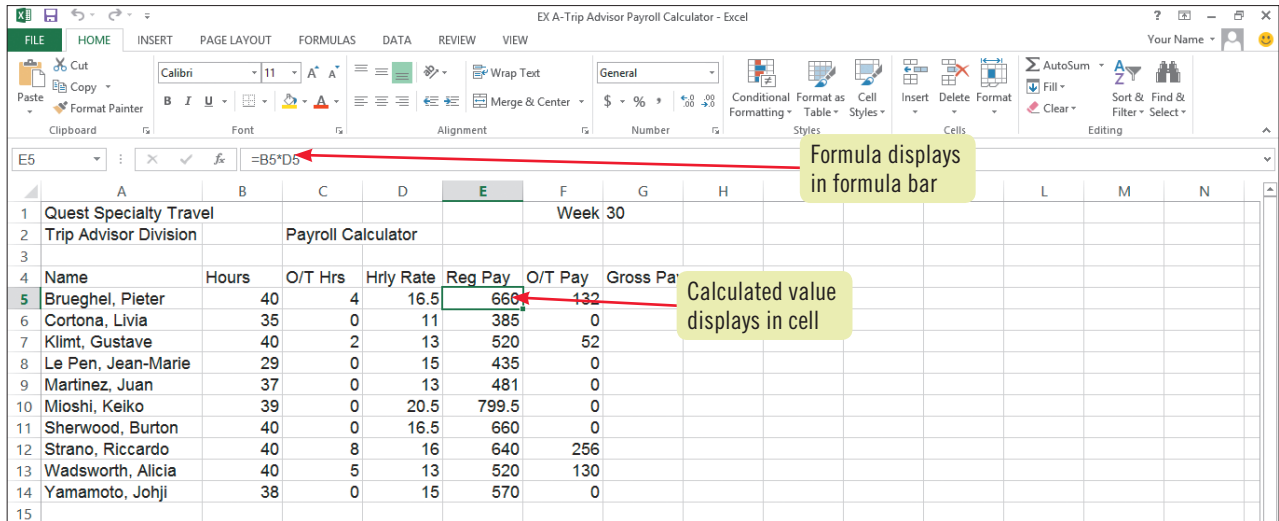
FIGURE A-6: Formula with multiple operators

Formula to calculate overtime pay

TABLE A-2: Excel arithmetic operators

operator	purpose	example
+	Addition	=A5+A7
-	Subtraction or negation	=A5-10
*	Multiplication	=A5*A7
/	Division	=A5/A7
%	Percent	=35%
^ (caret)	Exponent	=6^2 (same as 6^2)

Enter Labels and Values and Use the AutoSum Button

To enter content in a cell, you can type in the formula bar or directly in the cell itself. When entering content in a worksheet, you should start by entering all the labels first. **Labels** are entries that contain text and numerical information not used in calculations, such as "2012 Sales" or "Travel Expenses". Labels help you identify data in worksheet rows and columns, making your worksheet easier to understand. **Values** are numbers, formulas, and functions that can be used in calculations. To enter a calculation, you type an equal sign (=) plus the formula for the calculation; some examples of an Excel calculation are "=2+2" and "=C5+C6". Functions are Excel's built-in formulas; you learn more about them in the next unit. **CASE** *You want to enter some information in the Trip Advisor Payroll Calculator workbook, and use a very simple function to total a range of cells.*

STEPS

1. **Click cell A15, then click in the formula bar**

   Notice that the **mode indicator** on the status bar now reads "Edit," indicating you are in Edit mode. You are in Edit mode any time you are entering or changing the contents of a cell.

   > **QUICK TIP**
   > If you change your mind and want to cancel an entry in the formula bar, click the Cancel button ✕ on the formula bar.

2. **Type Totals, then click the Enter button ✓ on the formula bar**

   Clicking the Enter button accepts the entry. The new text is left-aligned in the cell. Labels are left-aligned by default, and values are right-aligned by default. Excel recognizes an entry as a value if it is a number or it begins with one of these symbols: +, -, =, @, #, or $. When a cell contains both text and numbers, Excel recognizes it as a label.

3. **Click cell B15**

   You want this cell to total the hours worked by all the trip advisors. You might think you need to create a formula that looks like this: =B5+B6+B7+B8+B9+B10+B11+B12+B13+B14. However, there's an easier way to achieve this result.

4. **Click the AutoSum button Σ in the Editing group on the HOME tab on the Ribbon**

   The SUM function is inserted in the cell, and a suggested range appears in parentheses, as shown in **FIGURE A-7**. A **function** is a built-in formula; it includes the **arguments** (the information necessary to calculate an answer) as well as cell references and other unique information. Clicking the AutoSum button sums the adjacent range (that is, the cells next to the active cell) above or to the left, although you can adjust the range if necessary by selecting a different range before accepting the cell entry. Using the SUM function is quicker than entering a formula, and using the range B5:B14 is more efficient than entering individual cell references.

   > **QUICK TIP**
   > You can create formulas in a cell even before you enter the values to be calculated; the results will be recalculated as soon as the data is entered.

5. **Click ✓ on the formula bar**

   Excel calculates the total contained in cells B5:B14 and displays the result, 378, in cell B15. The cell actually contains the formula =SUM(B5:B14), and the result is displayed.

6. **Click cell C13, type 6, then press [Enter]**

   The number 6 replaces the cell's contents, the cell pointer moves to cell C14, and the value in cell F13 changes.

   > **QUICK TIP**
   > You can also press [Tab] to complete a cell entry and move the cell pointer to the right.

7. **Click cell C18, type Average Gross Pay, then press [Enter]**

   The new label is entered in cell C18. The contents appear to spill into the empty cells to the right.

8. **Click cell B15, position the pointer on the lower-right corner of the cell (the fill handle) so that the pointer changes to ✛, drag the ✛ to cell G15, then release the mouse button**

   Dragging the fill handle across a range of cells copies the contents of the first cell into the other cells in the range. In the range B15:G15, each filled cell now contains a function that sums the range of cells above, as shown in **FIGURE A-8**.

9. **Save your work**

FIGURE A-7: Creating a formula using the AutoSum button
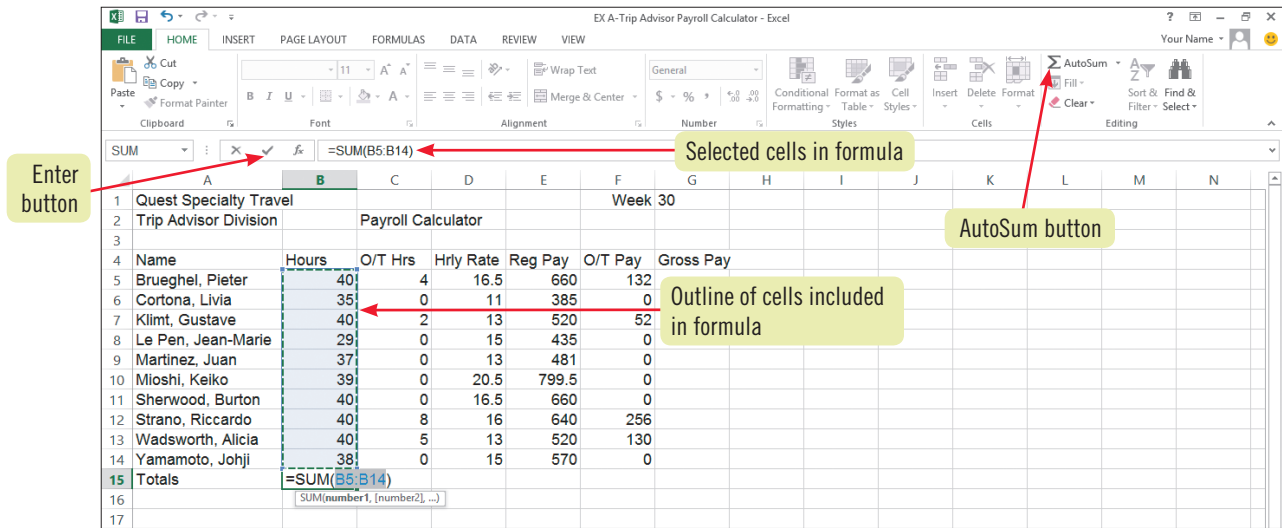
FIGURE A-8: Results of copied SUM functions
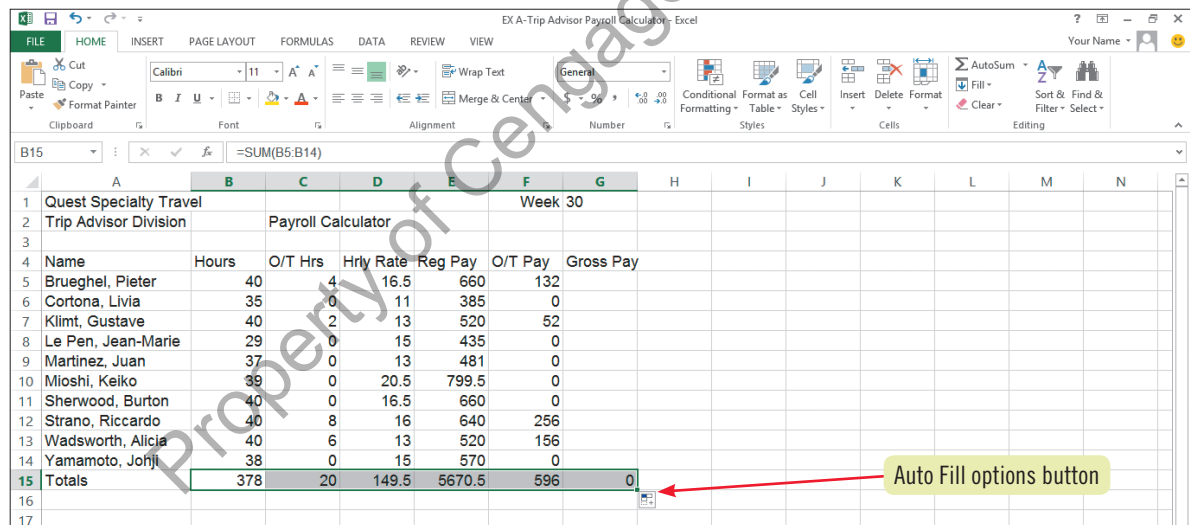
Navigating a worksheet

With over a million cells available in a worksheet, it is important to know how to move around in, or **navigate**, a worksheet. You can use the arrow keys on the keyboard ↑, ↓, → or ← to move one cell at a time, or press [Page Up] or [Page Down] to move one screen at a time. To move one screen to the left press [Alt][Page Up]; to move one screen to the right press [Alt][Page Down]. You can also use the mouse pointer to click the desired cell. If the desired cell is not visible in the worksheet window, use the scroll bars or use the Go To command by clicking the Find & Select button in the Editing group on the HOME tab on the Ribbon. To quickly jump to the first cell in a worksheet press [Ctrl][Home]; to jump to the last cell, press [Ctrl][End].

Edit Cell Entries

Learning Outcomes
• Edit cell entries in the formula bar
• Edit cell entries in the cell

You can change, or **edit**, the contents of an active cell at any time. To do so, double-click the cell, click in the formula bar, or just start typing. Excel switches to Edit mode when you are making cell entries. Different pointers, shown in **TABLE A-3**, guide you through the editing process. **CASE** ▶ *You noticed some errors in the worksheet and want to make corrections. The first error is in cell A5, which contains a misspelled name.*

STEPS

1. **Click cell A5, then click to the right of P in the formula bar**

   As soon as you click in the formula bar, a blinking vertical line called the **insertion point** appears on the formula bar at the location where new text will be inserted. See **FIGURE A-9**. The mouse pointer changes to ⌶ when you point anywhere in the formula bar.

2. **Press [Delete], then click the Enter button ✓ on the formula bar**

   Clicking the Enter button accepts the edit, and the spelling of the employee's first name is corrected. You can also press [Enter] or [Tab] to accept an edit. Pressing [Enter] to accept an edit moves the cell pointer down one cell, and pressing [Tab] to accept an edit moves the cell pointer one cell to the right.

3. **Click cell B6, then press [F2]**

   Excel switches to Edit mode, and the insertion point blinks in the cell. Pressing [F2] activates the cell for editing directly in the cell instead of the formula bar. Whether you edit in the cell or the formula bar is simply a matter of preference; the results in the worksheet are the same.

4. **Press [Backspace], type 8, then press [Enter]**

   The value in the cell changes from 35 to 38, and cell B7 becomes the active cell. Did you notice that the calculations in cells B15 and E15 also changed? That's because those cells contain formulas that include cell B6 in their calculations. If you make a mistake when editing, you can click the Cancel button ✕ on the formula bar *before* pressing [Enter] to confirm the cell entry. The Enter and Cancel buttons appear only when you're in Edit mode. If you notice the mistake *after* you have confirmed the cell entry, click the Undo button ↺ on the Quick Access toolbar.

5. **Click cell A9, then double-click the word Juan in the formula bar**

   Double-clicking a word in a cell selects it. When you selected the word, the Mini toolbar automatically displayed.

6. **Type Javier, then press [Enter]**

   When text is selected, typing deletes it and replaces it with the new text.

7. **Double-click cell C12, press [Delete], type 4, then click ✓**

   Double-clicking a cell activates it for editing directly in the cell. Compare your screen to **FIGURE A-10**.

8. **Save your work**

   Your changes to the workbook are saved.

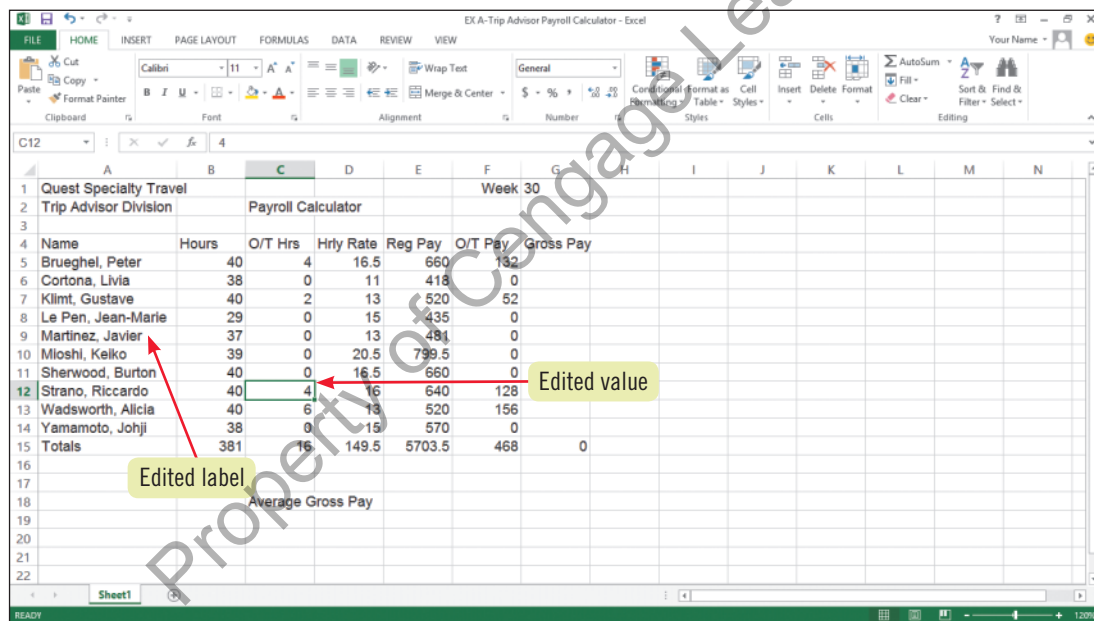
Recovering unsaved changes to a workbook file

You can use Excel's AutoRecover feature to automatically save (Autosave) your work as often as you want. This means that if you suddenly lose power or if Excel closes unexpectedly while you're working, you can recover all or some of the changes you made since you saved it last. (Of course, this is no substitute for regularly saving your work: this is just added insurance.) To customize the AutoRecover settings, click the FILE tab, click Options, then click

Save. AutoRecover lets you decide how often and into which location it should Autosave files. When you restart Excel after losing power, a Document Recovery pane opens and provides access to the saved and Autosaved versions of the files that were open when Excel closed. You can also click the FILE tab, click Open on the navigation bar, then click any file in the Recent Workbooks list to open Autosaved workbooks.

FIGURE A-9: Worksheet in Edit mode

Quick Access toolbar
Enter button
Insertion point
Active cell
Mode indicator
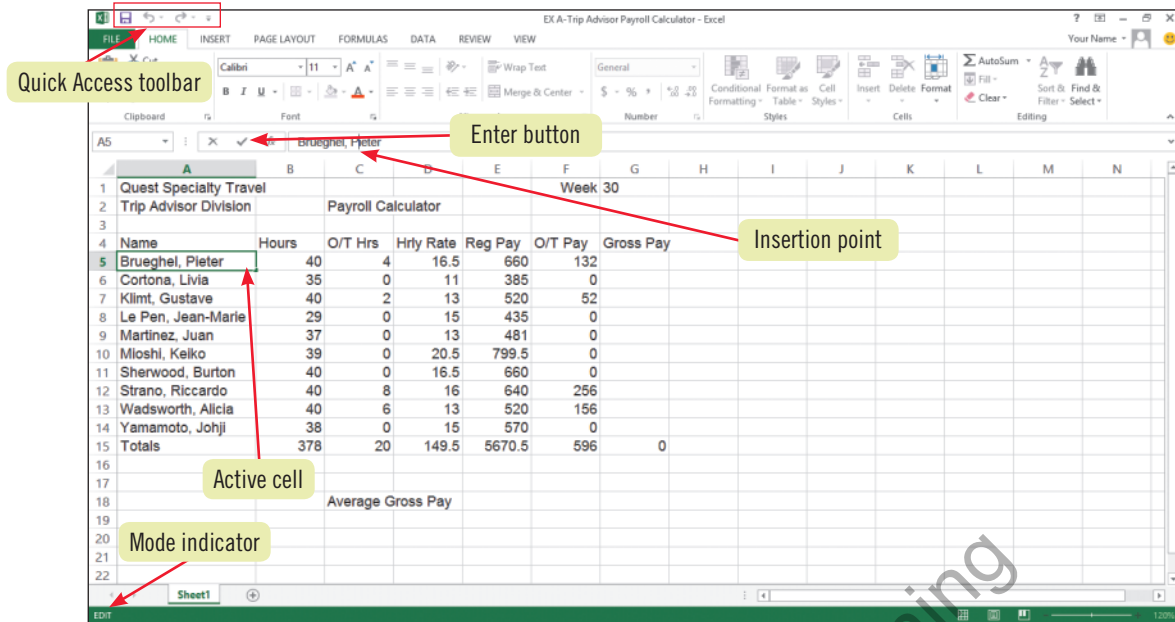
FIGURE A-10: Edited worksheet

Edited value
Edited label

TABLE A-3: Common pointers in Excel

name	pointer	use to	visible over the
Normal	⬚	Select a cell or range; indicates Ready mode	Active worksheet
Fill handle	✛	Copy cell contents to adjacent cells	Lower-right corner of the active cell or range
I-beam	I	Edit cell contents in active cell or formula bar	Active cell in Edit mode or over the formula bar
Move	⬚	Change the location of the selected cell(s)	Perimeter of the active cell(s)
Copy	⬚	Create a duplicate of the selected cell(s)	Perimeter of the active cell(s) when [Ctrl] is pressed
Column resize	↔	Change the width of a column	Border between column heading indicators

Enter and Edit a Simple Formula

You use formulas in Excel to perform calculations such as adding, multiplying, and averaging. Formulas in an Excel worksheet start with the equal sign (=), also called the **formula prefix**, followed by cell addresses, range names, values, and **calculation operators**. Calculation operators indicate what type of calculation you want to perform on the cells, ranges, or values. They can include **arithmetic operators**, which perform mathematical calculations (see **TABLE A-2** in the "Understand Formulas" lesson); **comparison operators**, which compare values for the purpose of true/false results; **text concatenation operators**, which join strings of text in different cells; and **reference operators**, which enable you to use ranges in calculations. **CASE** *You want to create a formula in the worksheet that calculates gross pay for each employee.*

STEPS

1. **Click cell G5**

   This is the first cell where you want to insert the formula. To calculate gross pay, you need to add regular pay and overtime pay. For employee Peter Brueghel, regular pay appears in cell E5 and overtime pay appears in cell F5.

2. **Type =, click cell E5, type +, then click cell F5**

   Compare your formula bar to **FIGURE A-11**. The blue and red cell references in cell G5 correspond to the colored cell outlines. When entering a formula, it's a good idea to use cell references instead of values whenever you can. That way, if you later change a value in a cell (if, for example, Peter's regular pay changes to 690), any formula that includes this information reflects accurate, up-to-date results.

3. **Click the Enter button ✓ on the formula bar**

   The result of the formula =E5+F5, 792, appears in cell G5. This same value appears in cell G15 because cell G15 contains a formula that totals the values in cells G5:G14, and there are no other values at this time.

4. **Click cell F5**

   The formula in this cell calculates overtime pay by multiplying overtime hours (C5) times twice the regular hourly rate (2*D5). You want to edit this formula to reflect a new overtime pay rate.

5. **Click to the right of 2 in the formula bar, then type .5 as shown in FIGURE A-12**

   The formula that calculates overtime pay has been edited.

6. **Click ✓ on the formula bar**

   Compare your screen to **FIGURE A-13**. Notice that the calculated values in cells G5, F15, and G15 have all changed to reflect your edits to cell F5.

7. **Save your work**

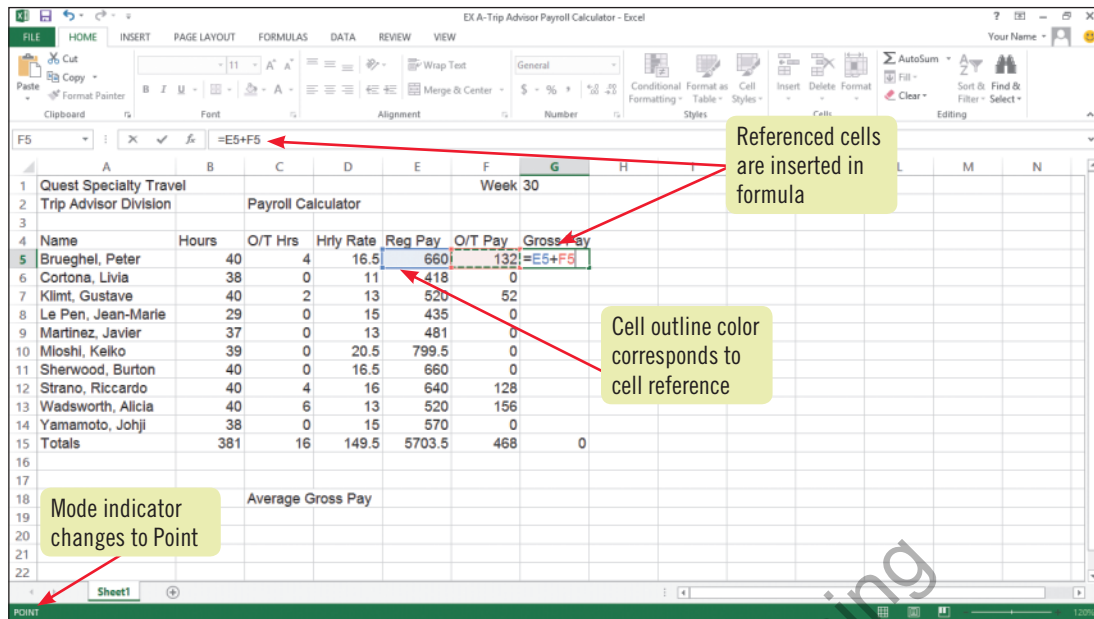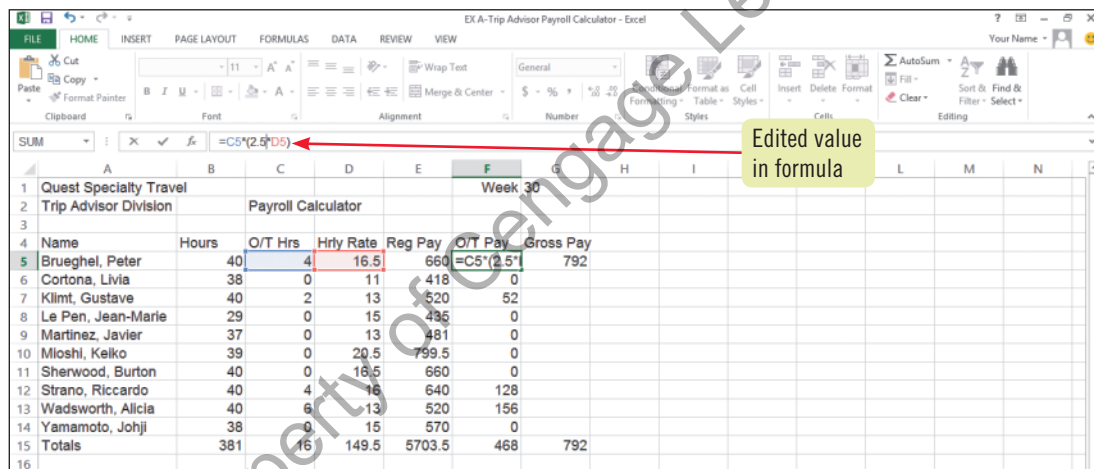### Understanding named ranges

It can be difficult to remember the cell locations of critical information in a worksheet, but using cell names can make this task much easier. You can name a single cell or range of contiguous, or touching, cells. For example, you might name a cell that contains data on average gross pay "AVG_GP" instead of trying to remember the cell address C18. A named range must begin with a letter or an underscore. It cannot contain any spaces or be the same as a built-in name, such as a function or another object (such as a different named range) in the workbook. To name a range, select the cell(s) you want to name, click the Name box in the formula bar, type the name you want to use, then press

[Enter]. You can also name a range by clicking the FORMULAS tab, then clicking the Define Name button in the Defined Names group. Type the new range name in the Name text box in the New Name dialog box, verify the selected range, then click OK. When you use a named range in a formula, the named range appears instead of the cell address. You can also create a named range using the contents of a cell already in the range. Select the range containing the text you want to use as a name, then click the Create from Selection button in the Defined Names group. The Create Names from Selection dialog box opens. Choose the location of the name you want to use, then click OK.
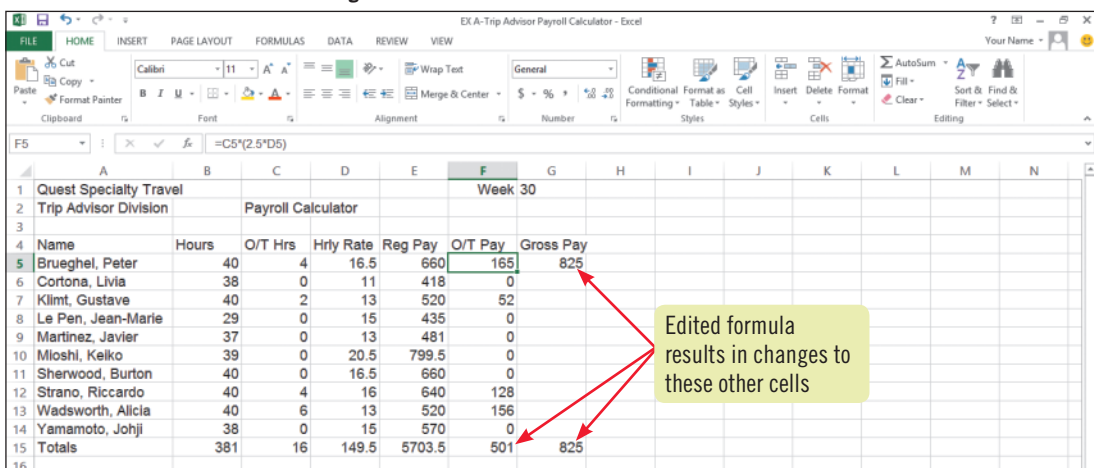
FIGURE A-11: Simple formula in a worksheet

Referenced cells are inserted in formula

Cell outline color corresponds to cell reference

Mode indicator changes to Point

FIGURE A-12: Edited formula in a worksheet

Edited value in formula

FIGURE A-13: Edited formula with changes

Edited formula results in changes to these other cells

Excel 2013

Switch Worksheet Views

Learning Outcomes
- Change worksheet views
- Create a header/footer
- Select a range

You can change your view of the worksheet window at any time, using either the VIEW tab on the Ribbon or the View buttons on the status bar. Changing your view does not affect the contents of a worksheet; it just makes it easier for you to focus on different tasks, such as entering content or preparing a worksheet for printing. The VIEW tab includes a variety of viewing options, such as View buttons, zoom controls, and the ability to show or hide worksheet elements such as gridlines. The status bar offers fewer View options but can be more convenient to use. **CASE** ▶ *You want to make some final adjustments to your worksheet, including adding a header so the document looks more polished.*

STEPS

QUICK TIP

Although a worksheet can contain more than a million rows and thousands of columns, the current document contains only as many pages as necessary for the current project.

1. **Click the VIEW tab on the Ribbon, then click the Page Layout button in the Workbook Views group**

   The view switches from the default view, Normal, to Page Layout view. **Normal view** shows the worksheet without including certain details like headers and footers, or tools like rulers and a page number indicator; it's great for creating and editing a worksheet, but may not be detailed enough when you want to put the finishing touches on a document. **Page Layout view** provides a more accurate view of how a worksheet will look when printed, as shown in **FIGURE A-14**. The margins of the page are displayed, along with a text box for the header. A footer text box appears at the bottom of the page, but your screen may not be large enough to view it without scrolling. Above and to the left of the page are rulers. Part of an additional page appears to the right of this page, but it is dimmed, indicating that it does not contain any data. A page number indicator on the status bar tells you the current page and the total number of pages in this worksheet.

2. **Move the pointer over the header *without clicking***

   The header is made up of three text boxes: left, center, and right. Each text box is outlined in green as you pass over it with the pointer.
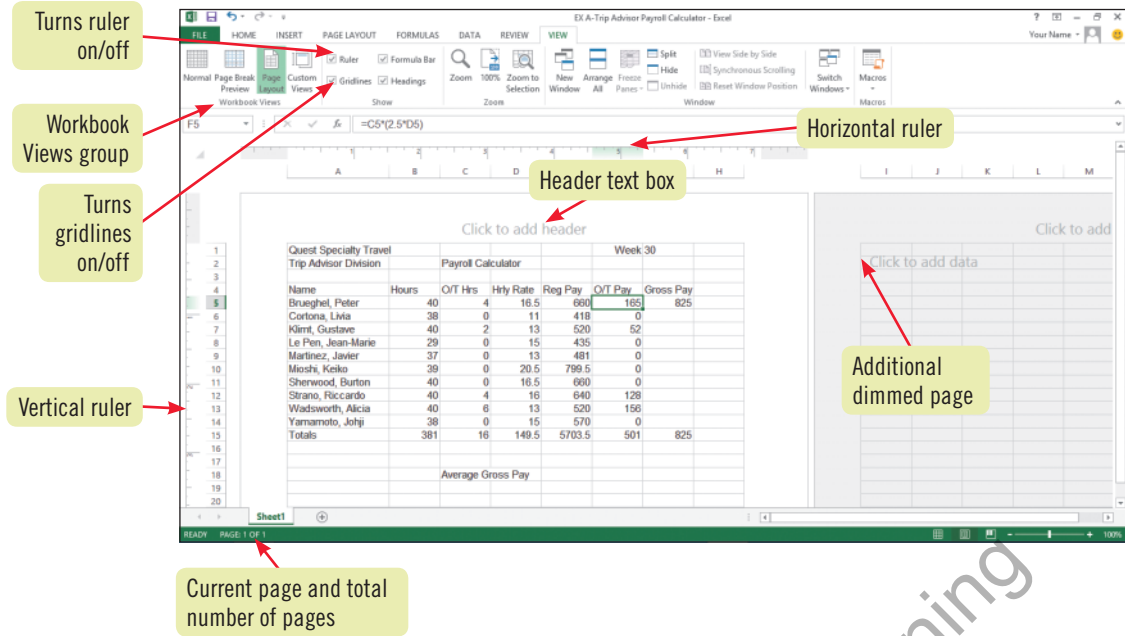
QUICK TIP

You can change header and footer information using the Header & Footer Tools Design tab that opens on the Ribbon when a header or footer is active. For example, you can insert the date by clicking the Current Date button in the Header & Footer Elements group, or insert the time by clicking the Current Time button.
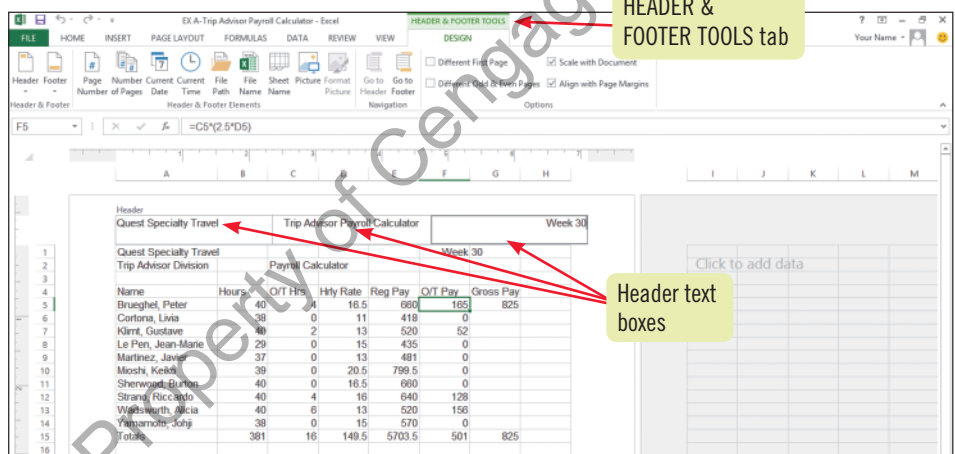
3. **Click the left header text box, type Quest Specialty Travel, click the center header text box, type Trip Advisor Payroll Calculator, click the right header text box, then type Week 30**

   The new text appears in the text boxes, as shown in **FIGURE A-15**. You can also press the [Tab] key to advance from one header box to the next.

4. **Select the range A1:G2, then press [Delete]**

   The duplicate information you just entered in the header is deleted from cells in the worksheet.

5. **Click the VIEW tab if necessary, click the Ruler check box in the Show group, then click the Gridlines check box in the Show group**

   The rulers and the gridlines are hidden. By default, gridlines in a worksheet do not print, so hiding them gives you a more accurate image of your final document.

6. **Click the Page Break Preview button on the status bar**

   Your view changes to Page Break Preview, which displays a reduced view of each page of your worksheet, along with page break indicators that you can drag to include more or less information on a page.

QUICK TIP

Once you view a worksheet in Page Break Preview, the page break indicators appear as dotted lines after you switch back to Normal view or Page Layout view.
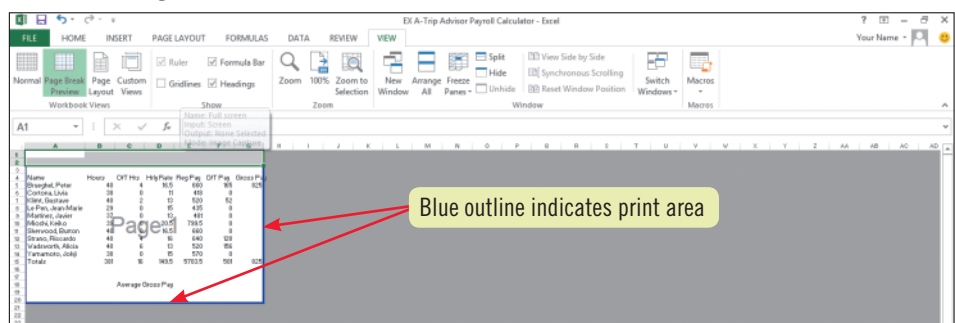
7. **Drag the pointer from the bottom page break indicator to the bottom of row 20**

   See **FIGURE A-16**. When you're working on a large worksheet with multiple pages, sometimes you need to adjust where pages break; in this worksheet, however, the information all fits comfortably on one page.

8. **Click the Page Layout button in the Workbook Views group, click the Ruler check box in the Show group, then click the Gridlines check box in the Show group**

   The rulers and gridlines are no longer hidden. You can show or hide VIEW tab items in any view.

9. **Save your work**

FIGURE A-14: Page Layout view

- Turns ruler on/off
- Workbook Views group
- Turns gridlines on/off
- Vertical ruler
- Horizontal ruler
- Header text box
- Additional dimmed page
- Current page and total number of pages

FIGURE A-15: Header text entered

- HEADER & FOOTER TOOLS tab
- Header text boxes

FIGURE A-16: Page Break Preview

- Blue outline indicates print area

Excel 2013

Choose Print Options

Before printing a document, you may want to review it using the PAGE LAYOUT tab to fine-tune your printed output. You can use tools on the PAGE LAYOUT tab to adjust print orientation (the direction in which the content prints across the page), paper size, and location of page breaks. You can also use the Scale to Fit options on the PAGE LAYOUT tab to fit a large amount of data on a single page without making changes to individual margins, and to turn gridlines and column/row headings on and off. When you are ready to print, you can set print options such as the number of copies to print and the correct printer, and you can preview your document in Backstage view using the FILE tab. You can also adjust page layout settings from within Backstage view and immediately see the results in the document preview. **CASE** *You are ready to prepare your worksheet for printing.*

STEPS

1. **Click cell A20, type your name, then click ✓**

2. **Click the PAGE LAYOUT tab on the Ribbon**
   Compare your screen to **FIGURE A-17**. The solid outline indicates the default **print area**, the area to be printed.

3. **Click the Orientation button in the Page Setup group, then click Landscape**
   The paper orientation changes to **landscape**, so the contents will print across the length of the page instead of across the width.

4. **Click the Orientation button in the Page Setup group, then click Portrait**
   The orientation returns to **portrait**, so the contents will print across the width of the page.

5. **Click the Gridlines View check box in the Sheet Options group on the PAGE LAYOUT tab, click the Gridlines Print check box to select it if necessary, then save your work**
   Printing gridlines makes the data easier to read, but the gridlines will not print unless the Gridlines Print check box is checked.

6. **Click the FILE tab, then click Print on the navigation bar**
   The Print tab in Backstage view displays a preview of your worksheet exactly as it will look when it is printed. To the left of the worksheet preview, you can also change a number of document settings and print options. To open the Page Setup dialog box and adjust page layout options, click the Page Setup link in the Settings section. Compare your preview screen to **FIGURE A-18**. You can print from this view by clicking the Print button, or return to the worksheet without printing by clicking the Back button ⬅. You can also print an entire workbook from the Backstage view by clicking the Print button in the Settings section, then selecting the active sheet or entire workbook.

7. **Compare your settings to FIGURE A-18, then click the Print button**
   One copy of the worksheet prints.

8. **Submit your work to your instructor as directed, then exit Excel**

Printing worksheet formulas

Sometimes you need to keep a record of all the formulas in a worksheet. You might want to do this to see exactly how you came up with a complex calculation, so you can explain it to others. To prepare a worksheet to show formulas rather than results when printed, open the workbook containing the formulas you want to print. Click the FORMULAS tab, then click the Show Formulas button in the Formula Auditing group to select it. When the Show Formulas button is selected, formulas rather than resulting values are displayed in the worksheet on screen and when printed. (The Show Formulas button is a *toggle*: click it again to hide the formulas.)

FIGURE A-17: Worksheet with Portrait orientation
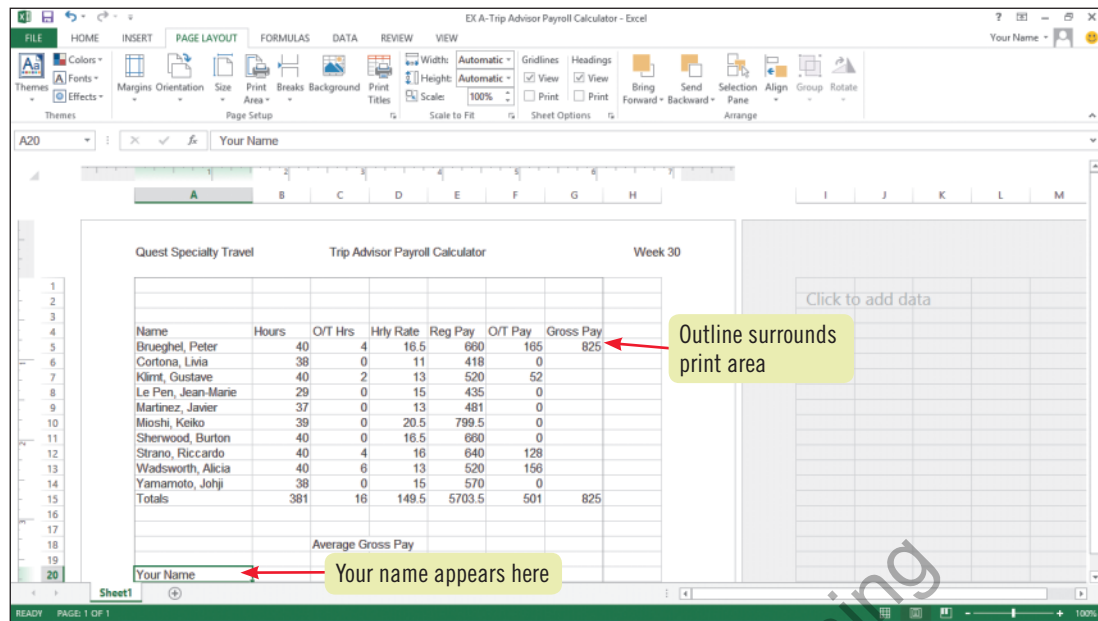
FIGURE A-18: Worksheet in Backstage view
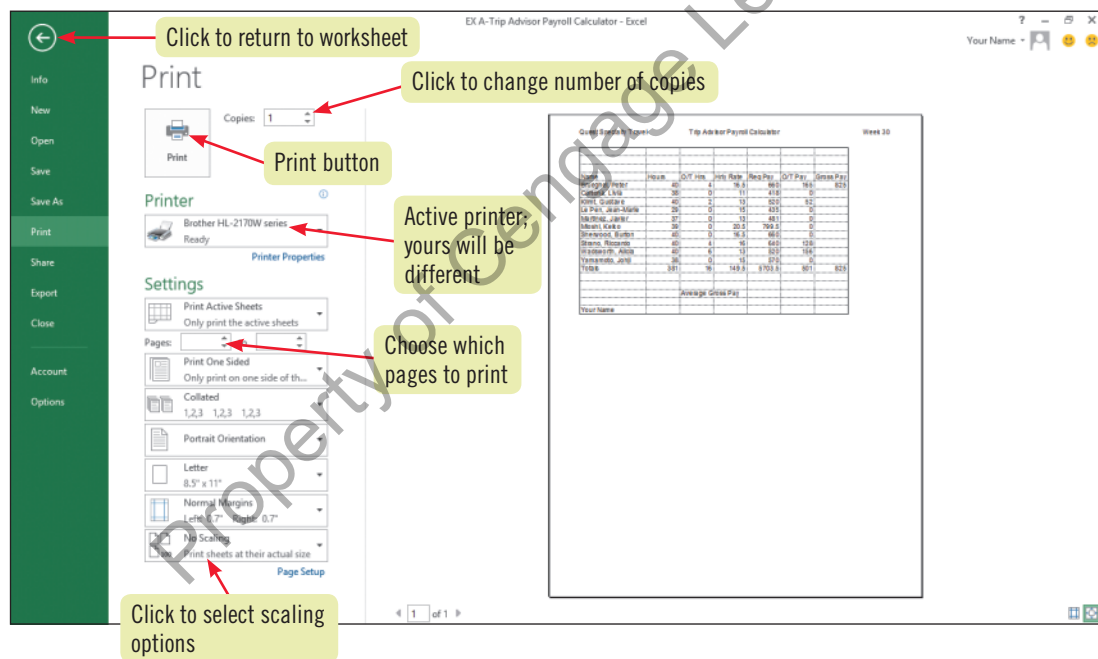
Scaling to fit

If you have a large amount of data that you want to fit to a single sheet of paper, but you don't want to spend a lot of time trying to adjust the margins and other settings, you have several options. You can easily print your work on a single sheet by clicking the No Scaling list arrow in the Settings section on the Print button in Backstage view, then clicking Fit Sheet on One Page. Another method for fitting worksheet content onto one page is to click the PAGE LAYOUT tab, then change the Width and Height settings in the Scale to Fit group each to 1 Page. You can also use the Fit to option in the Page Setup dialog box to fit a worksheet on one page. To open the Page Setup dialog box, click the dialog box launcher in the Scale to Fit group on the PAGE LAYOUT tab, or click the Page Setup link on the Print tab in Backstage view. Make sure the Page tab is selected in the Page Setup dialog box, then click the Fit to option button.