

Microsoft[®] Office 2013

First Course

Second Course

Third Course

Excel 2013
UNIT A

Getting Started with Excel 2013





Objectives

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



Objectives

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

Understand Spreadsheet Software

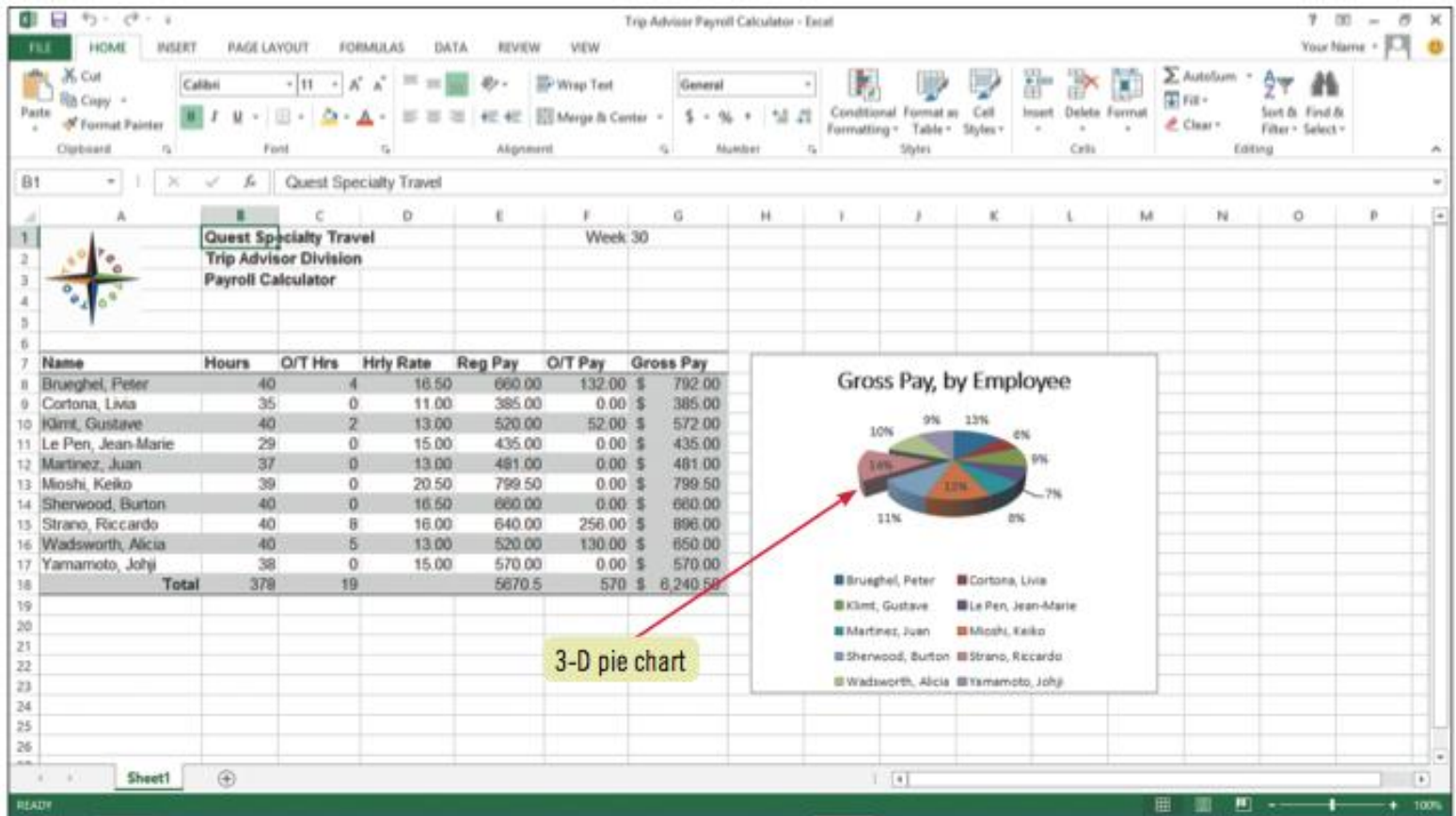
- Microsoft Excel is an electronic spreadsheet program
 - An **electronic spreadsheet** program allows you to perform numeric calculations
 - The spreadsheet is called a **worksheet**
 - Individual worksheets are stored in a **workbook** which is the Excel file

Understand Spreadsheet Software

- Advantages of using Excel
 - Enter data quickly and accurately
 - Recalculate data easily
 - Perform what-if analysis
 - Change the appearance of information
 - Create charts
 - Share information
 - Build on previous work

Understand Spreadsheet Software

Excel worksheet



Understand Spreadsheet Software

- The **Name box** displays the active cell address
- The **formula bar** allows you to enter or edit data in the worksheet
- The intersection of a row and a column is called a **cell**



Identify Excel 2013 Window Components

- Each cell has its own unique location called a **cell address**
- The cell in which you are working is called the **active cell**
- **Sheet tabs** let you switch from sheet to sheet in a workbook



Identify Excel 2013 Window Components

- The **status bar** provides a brief description of the active command or task in progress
- The **mode indicator** provides additional information about certain tasks

Identify Excel 2013 Window Components

- Selected range

The screenshot displays the Microsoft Excel 2013 interface. The title bar reads "EXA-Trip Advisor Payroll Calculator - Excel". The ribbon is set to "HOME" with sub-tabs for "Clipboard", "Font", "Alignment", "Number", "Styles", "Cells", and "Editing". The active cell is B5, containing the value "40".

The spreadsheet data is as follows:

Name	Hours	O/T Hrs	Hrly Rate	Reg Pay	O/T Pay	Gross Pay
Brueghel, Pieter	40	4	16.5	660	132	
Cortona, Livia	35	0	11	385	0	
Klimt, Gustave	40	2	13	520	52	
Le Pen, Jean-Marie	29	0	15	435	0	
Martinez, Juan	37	0	13	481	0	
Mioishi, Keiko	39	0	20.5	799.5	0	
Sherwood, Burton	40	0	16.5	660	0	
Strano, Riccardo	40	8	16	640	256	
Wadsworth, Alicia	40	5	13	520	130	
Yamamoto, Johji	38	0	15	570	0	

Annotations in the image:

- A yellow callout box labeled "Selected cells" points to the range of cells B5:B14, which are highlighted in grey.
- A yellow callout box labeled "Quick Analysis tool button" points to the small icon in the bottom-right corner of the selected range.
- A yellow callout box labeled "Average, Count, and Sum" points to the status bar at the bottom right, which displays "AVERAGE: 37.8", "COUNT: 10", and "SUM: 378".



Understand Formulas

- **Formulas** are equations in a worksheet
- When creating calculations in Excel, it is important to:
 - Know where the formulas should be
 - Know exactly what cells and arithmetic operations are needed



Understand Formulas

- When creating calculations in Excel, it is important to:
 - Create formulas with care
 - Use cell references rather than values
 - Determine what calculations will be needed

Understand Formulas

Viewing a Formula

The screenshot shows the Microsoft Excel interface with the following data:

	A	B	C	D	E	F	G	H	L	M	N
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 Pa				
5	Brueghel, Pieter	40	4	16.5	668	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					
15											

Understand Formulas

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

- **Labels** contain text and numerical information not used in calculations
- **Values** are numbers, formulas, and functions that can be used in calculations
- A **function** is a built-in formula
 - A function includes **arguments**, the information necessary for the calculation



Enter Labels and Values and Use the AutoSum Button

- Clicking the Sum button sums the adjacent range above or to the left, though you can adjust the range
- The fill handle fills cells based on the first number sequence in the range

Enter Labels and Values and Use the AutoSum Button

Creating a formula using the AutoSum button

The screenshot shows an Excel spreadsheet titled "EXA-Trip Advisor Payroll Calculator - Excel". The ribbon is set to "FORMULAS". The formula bar shows the formula `=SUM(B5:B14)`. The spreadsheet data is as follows:

Payroll Calculator						
Week 30						
Name	Hours	O/T Hrs	Hrly Rate	Reg Pay	O/T Pay	Gross Pay
Brueghel, Pieter	40	4	16.5	660	132	
Cortona, Livia	35	0	11	385	0	
Kilmit, Gustave	40	2	13	520	52	
Le Pen, Jean-Marie	29	0	15	435	0	
Martinez, Juan	37	0	13	481	0	
Mioishi, Keiko	39	0	20.5	799.5	0	
Sherwood, Burton	40	0	16.5	660	0	
Strano, Riccardo	40	8	16	640	256	
Wadsworth, Alicia	40	5	13	520	130	
Yamamoto, Johji	38	0	15	570	0	
Totals						

Annotations in the image:

- Enter button**: Points to the checkmark icon in the formula bar.
- Selected cells in formula**: Points to the range `B5:B14` in the formula bar.
- AutoSum button**: Points to the Σ icon in the FORMULAS ribbon.
- Outline of cells included in formula**: Points to the dashed border around the range B5:B14 in the spreadsheet.



Edit Cell Entries

- You can change, or **edit**, the contents of an active cell at any time
- To edit the contents of the active cell:
 - Double-click the cell, or
 - Click in the formula bar, or
 - Just start typing
- Excel switches to Edit mode when you are making cell entries

Editing Cell Entries

Worksheet in Edit mode

Quick Access toolbar

Enter button

Insertion point







Active cell

Mode indicator

Name	Hours	O/T Hrs	Hrly Rate	Reg Pay	O/T Pay	Gross Pay
Brueghel, Pieter	40	4	16.5	660	132	
Cortona, Livia	35	0	11	385	0	
Klimt, Gustave	40	2	13	520	52	
Le Pen, Jean-Marie	29	0	15	435	0	
Martinez, Juan	37	0	13	481	0	
Moshi, Keiko	39	0	20.5	799.5	0	
Sherwood, Burton	40	0	16.5	660	0	
Strano, Riccardo	40	8	16	640	256	
Wadsworth, Alicia	40	6	13	520	156	
Yamamoto, Johji	38	0	15	570	0	
Totals	378	20	149.5	5670.5	596	0

Editing Cell Entries

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		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

- Formulas start with the equal sign (=), also called the **formula prefix**
- **Calculation operators** in formulas indicate what type of calculation you want to perform
- **Arithmetic operators** perform mathematical calculations
 - Examples of arithmetic operators are
 $+ \quad - \quad * \quad / \quad \% \quad \wedge$

Enter and Edit a Simple Formula

- **Comparison operators** compare values for the purpose of true/false results
 - Examples of comparison operators are
= > < >= <= <>
- **Text concatenation operators** join strings of text in different cells
 - An example of a text concatenation operator is &

Enter and Edit a Simple Formula

- Reference operators enable you to use ranges in calculations
 - Examples of reference operators are : , (space)



Switch Worksheet Views

- You can change your view of the worksheet window by using either:
 - View tab on the Ribbon
 - View buttons on the status bar
- **Normal view** shows the worksheet without including headers and footers or tools like rulers and a page number indicator



Switch Worksheet Views

- **Page Layout View** provides a more accurate view of how a worksheet will look when printed
 - It shows page margins, headers and footers, rulers, etc.
- **Page Break Preview** displays a reduced view of each page of the worksheet, along with page break indicators

Switch Worksheet Views

Page Layout View

The screenshot shows the Microsoft Excel interface in Page Layout View. The ribbon includes Home, Insert, Page Layout, Formulas, Data, and Review. The Page Layout ribbon is active, showing options for Ruler, Gridlines, and Headers. The worksheet contains a table with employee data and a dimmed page to the right.

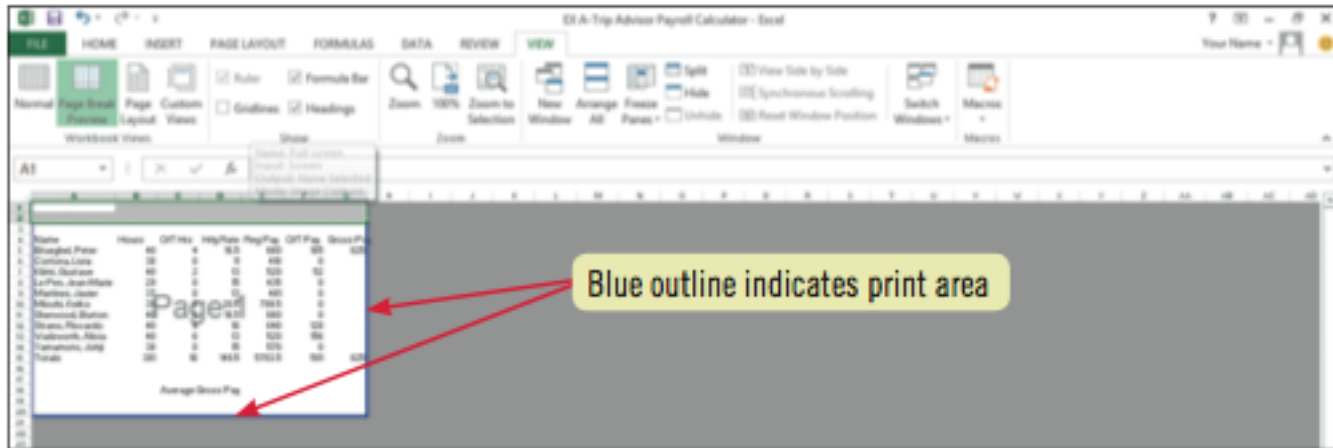
Callouts and their corresponding features:

- Turns ruler on/off: Points to the Ruler icon in the Page Layout ribbon.
- Workbook Views group: Points to the Workbook Views icon in the Page Layout ribbon.
- Turns gridlines on/off: Points to the Gridlines icon in the Page Layout ribbon.
- Vertical ruler: Points to the vertical ruler on the left side of the worksheet.
- Horizontal ruler: Points to the horizontal ruler at the top of the worksheet.
- Header text box: Points to the header area above the table.
- Additional dimmed page: Points to the right-hand page of the worksheet.
- Current page and total number of pages: Points to the status bar at the bottom left, which shows "Page: 1 of 1".

Quest Specialty Travel		Payroll Calculator			Week 30	
Trip Advisor Division		Hours	O/T hrs	Reg Rate	Reg Pay	Gross Pay
Name						
Brought, Peter		40	4	16.5	660	825
Carlson, Luke		38	0	11	418	0
Kline, Gustave		40	2	13	520	52
Le Pen, Jean-Marie		28	0	15	420	0
Martinez, Javier		37	0	13	481	0
Moore, Kuba		38	0	20.5	779.5	0
Sherwood, Burton		40	0	16.5	660	0
Shaw, Riccardo		40	4	16	640	128
Widowski, Alice		40	0	13	520	156
Yamamoto, Akiy		38	0	15	570	0
Totals		301	10	149.5	5203.5	801
Average Gross Pay						

Switching Worksheet Views

Page Break Preview



Choose Print Options

- You can see how a worksheet would look when printed using:
 - Page Layout tab
 - The dotted line indicates the **print area**, the area to be printed
 - Print Preview
 - You can print from this view by clicking the Print button on the Ribbon

Choosing Print Options

- Page Layout tab
 - Page Setup group
 - Print orientation: **landscape** or **portrait**
 - Scale to Fit group
 - Sheet Options group
 - Printing in **Backstage view** lets you choose the number of copies, the printer, etc.

Choosing Print Options

Worksheet with Portrait orientation

The screenshot shows the Microsoft Excel interface with the 'PAGE LAYOUT' ribbon selected. The worksheet is titled 'EXA-Trip Advisor Payroll Calculator - Excel'. The worksheet contains a table with the following data:

Name	Hours	O/T Hrs	Hly Rate	Reg Pay	O/T Pay	Gross Pay
Brunghel, Peter	40	4	16.5	660	165	825
Corona, Luis	38	0	11	418	0	
Kimt, Gustave	40	2	13	520	52	
Le Pen, Jean-Marie	29	0	15	435	0	
Martinez, Javier	37	0	13	481	0	
Moshi, Koko	39	0	20.5	799.5	0	
Sherwood, Burton	40	0	16.5	660	0	
Strano, Riccardo	40	4	16	640	128	
Wadsworth, Alicia	40	6	13	520	156	
Yamamoto, Johji	38	0	15	570	0	
Totals	381	16	149.5	5703.5	501	825

Below the table, there is a section for 'Average Gross Pay' and a cell containing 'Your Name'. A yellow callout box points to the 'Your Name' cell with the text 'Your name appears here'. Another yellow callout box points to the table's outline with the text 'Outline surrounds print area'.

Choosing Print Options

Worksheet in Backstage view

The screenshot shows the Backstage view of Microsoft Office 2013. The left-hand navigation pane is dark green with white text. The main area is white with a 'Print' section. A red arrow points to the back arrow icon in the top-left corner of the Backstage view, with the text 'Click to return to worksheet'. Another red arrow points to the 'Copies' dropdown menu, which is currently set to 1, with the text 'Click to change number of copies'. A third red arrow points to the 'Print' button, which is a printer icon, with the text 'Print button'. A fourth red arrow points to the 'Printer' section, which shows 'Brother HL-2170W series' and 'Ready', with the text 'Active printer; yours will be different'. A fifth red arrow points to the 'Pages' dropdown menu, which is currently set to 'All', with the text 'Choose which pages to print'. A sixth red arrow points to the 'Scaling' dropdown menu, which is currently set to 'No Scaling', with the text 'Click to select scaling options'. The main area also displays a preview of a worksheet titled 'Tip-Advisor Payroll Calculator' with a table of data. The table has columns for 'Name', 'Hourly Rate', 'Hrs', 'Gross Pay', 'Social Sec', 'Medicare', 'Total Deductions', and 'Net Pay'. The data rows include 'Gregory, Greg', 'Christy, Lisa', 'John, Matthew', 'Lisa, Paul', 'Matthew, John', 'Susan, Kelly', 'Sharon, Susan', 'Brian, Anthony', 'Cristina, Lisa', and 'Tommie, Lisa'. The table also includes a 'Total' row and an 'Average Gross Pay' row. The 'Total' row shows a total of 100 hours, 1000.00 gross pay, 100.00 social security, 100.00 medicare, and 210.00 total deductions, resulting in a net pay of 690.00. The 'Average Gross Pay' row shows an average of 1.00 hour, 10.00 gross pay, 1.00 social security, 1.00 medicare, and 2.10 total deductions, resulting in an average net pay of 6.90.

Click to return to worksheet

Click to change number of copies

Print button

Active printer; yours will be different

Choose which pages to print

Click to select scaling options

Name	Hourly Rate	Hrs	Gross Pay	Social Sec	Medicare	Total Deductions	Net Pay
Gregory, Greg	20	1	20	1	1	2	18
Christy, Lisa	20	1	20	1	1	2	18
John, Matthew	20	1	20	1	1	2	18
Lisa, Paul	20	1	20	1	1	2	18
Matthew, John	20	1	20	1	1	2	18
Susan, Kelly	20	1	20	1	1	2	18
Sharon, Susan	20	1	20	1	1	2	18
Brian, Anthony	20	1	20	1	1	2	18
Cristina, Lisa	20	1	20	1	1	2	18
Tommie, Lisa	20	1	20	1	1	2	18
Total		100	2000	100	100	210	1690
Average Gross Pay		1.00	10.00	1.00	1.00	2.10	6.90



Summary

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



Summary

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