

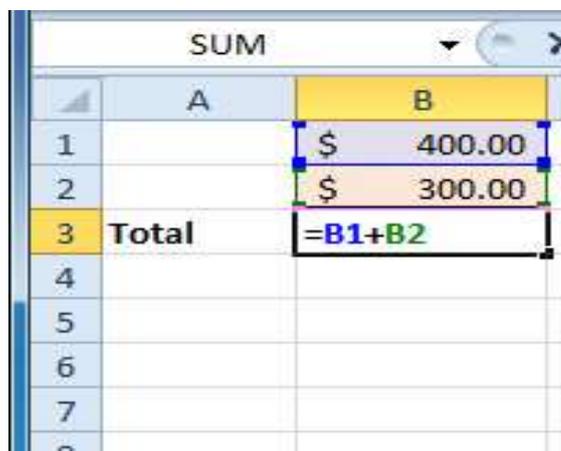
**USE A GRAPHICAL USER INTERFACE (GUI)-BASED SPREADSHEET  
APPLICATION TO CREATE AND EDIT SPREADSHEETS**

**US 116937**

**NQF LEVEL: 2**

**CREDITS: 4**

**NOTIONAL HOURS: 40**



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## LEARNER GUIDE

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## Introduction to Excel 2016

Excel 2016 is the spreadsheet software in the Microsoft 2016 Office Suite. It allows you to store, organize, and analyze numerical and text data.

The main uses of spreadsheets include;

- Automation of repetitive calculation tasks
- Organisation of data into rows and columns
- Create consolidating results
- Manage data lists

## Lesson 1 - Setting Up Your Excel Environment



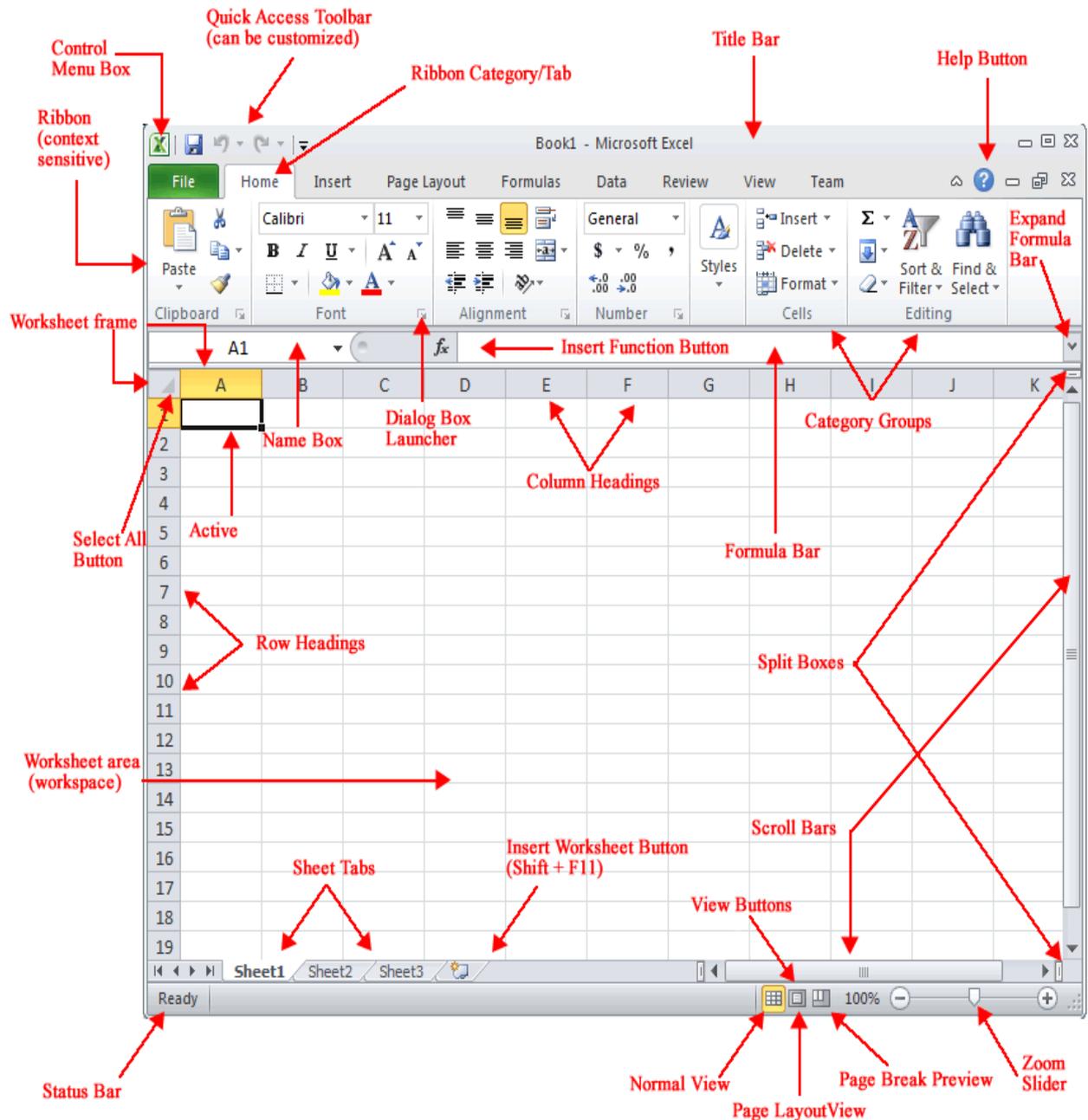
Excel is a **spreadsheet program** that allows you to store, organize, and analyze information. In this lesson, you will learn your way around the Excel 2016 environment, including the new **Backstage view**, which replaces the Microsoft Button menu from Excel 2010. You will also learn how to use and modify the **Ribbon** and the **Quick Access Toolbar**, and how to **create new workbooks** and **open** existing ones.

### **Exploring the Excel Environment**

Before you begin creating spreadsheets in Excel, you may want to **set up your Excel environment** and become familiar with a few **key tasks and features** such as how to minimize and maximize the Ribbon, configure the Quick Access toolbar, switch page views, and access your Excel options.

**NOTE:** The **Excel 2016** interface is very similar to Excel 2010. There have been some changes that we will review later in this lesson, but if you are new to Excel, first take some time to learn how to navigate an Excel workbook.

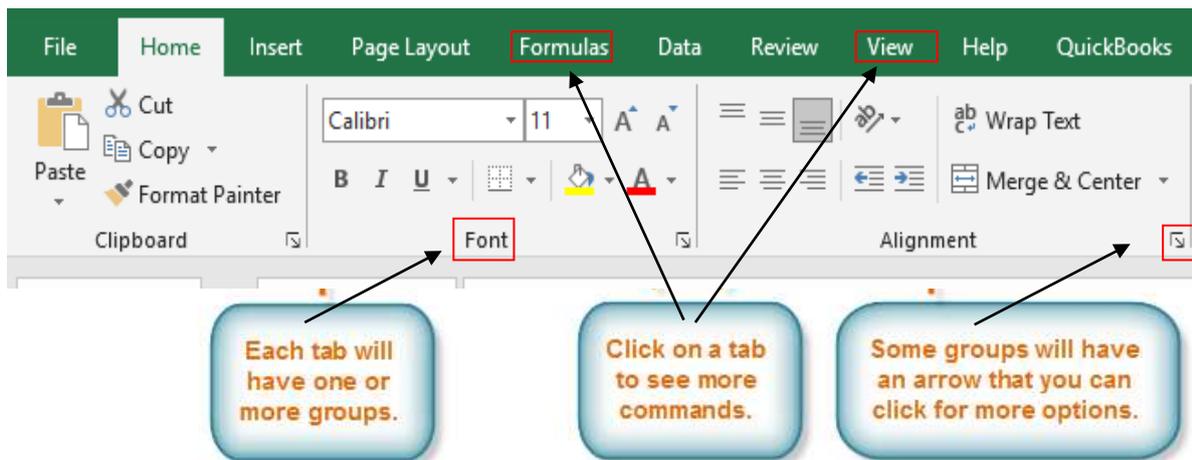
The **Ribbon** and the **Quick Access Toolbar** are where you will find the commands you need to do common tasks in Excel. If you are familiar with Excel 2010, you will find that the main difference in the Excel 2016 Ribbon is that commands such as Open and Print are now housed in **Backstage view**.



### The Ribbon:

The Ribbon contains multiple **tabs**, each with several **groups** of commands. You can add your own tabs that contain your favorite commands.

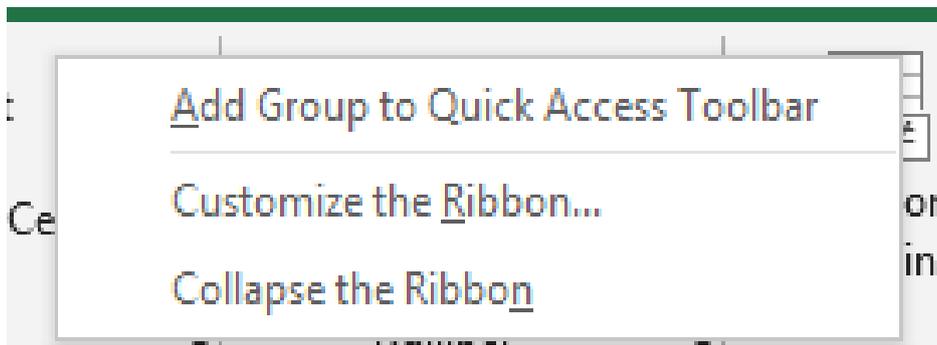
Certain programs, such as **Adobe Acrobat Reader**, may install additional tabs to the ribbon. These tabs are called **Add-ins**.



### To Customize the Ribbon:

You can customize the ribbon by creating your own **tabs** that house your desired commands. Commands are always housed within a **group**, and you can create as many groups as you need to keep your tabs organized. In addition, you can even add commands to any of the default tabs, as long as you create a custom group within the tab.

1. Right-click the Ribbon and select **Customize the Ribbon**. A **dialog box** will appear.



2. Click **New Tab**. A new tab will be created with a new group inside it.
3. Make sure the new group is selected.
4. Select a command from the list on the left, then click **Add**. You can also drag commands directly into a group.
5. When you are done adding commands, click **OK**.

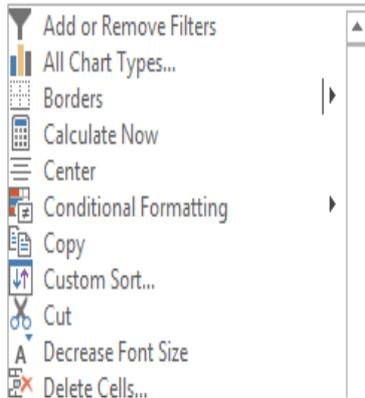
If you do not see the command you want, click on the **Choose commands** drop-down box and select **All Commands**.



Customize the Ribbon.

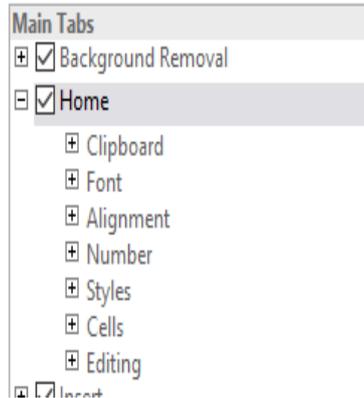
Choose commands from:

Popular Commands



Customize the Ribbon:

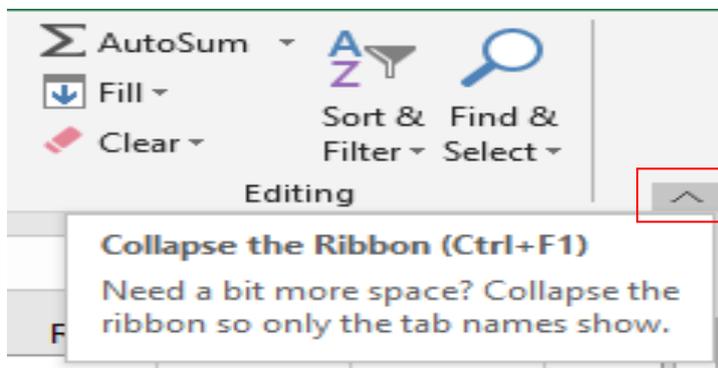
Main Tabs



### To Minimize and Maximize the Ribbon:

The Ribbon is designed to be responsive to your current task and easy to use, but if you find it is taking up too much of your screen space, you can **minimize** it.

1. Click the **arrow** in the lower-right corner of the Ribbon to minimize it.



2. To maximize the Ribbon, click the arrow again.

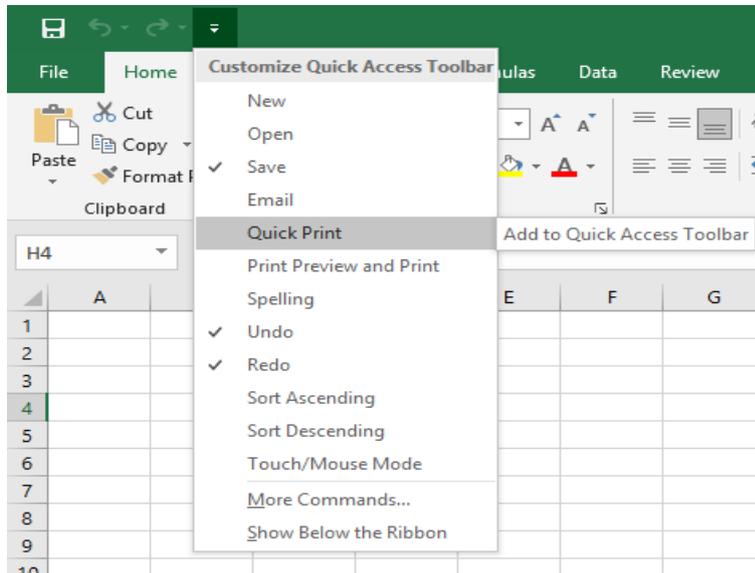
When the Ribbon is minimized, you can make it reappear by clicking on a tab. However, the Ribbon will disappear again when you are not using it.

### To Add Commands to the Quick Access Toolbar:

The **Quick Access Toolbar** is located above the Ribbon, and it lets you access common commands no matter which tab you are on. By default, it shows the **Save**, **Undo**, and **Repeat** commands. You can add other commands to make it more convenient for you.

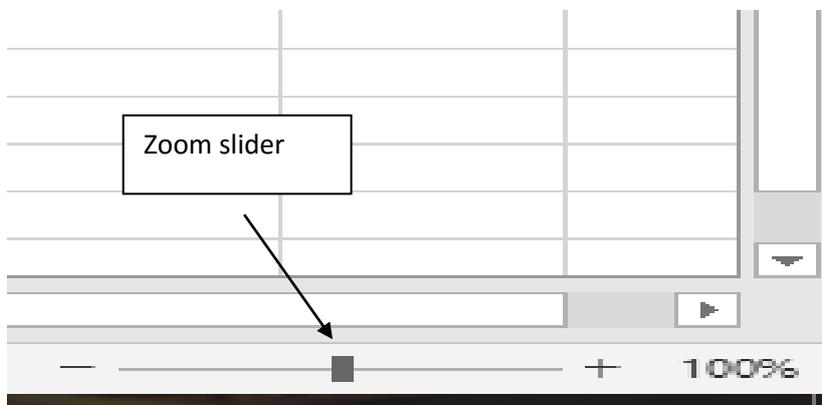
1. Click the **drop-down arrow** to the right of the **Quick Access Toolbar**.

2. Select the **command** you wish to add from the drop-down menu. To choose from more commands, select **More Commands**.



### To Zoom In and Out:

- Locate the **zoom bar** in the bottom, right corner.
- Left-click the **slider** and **drag** it to the left to zoom in and to the right to zoom out.



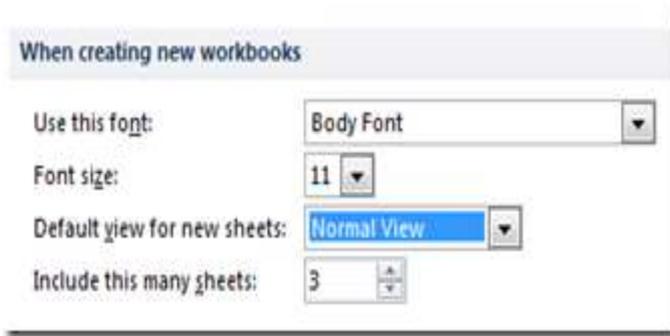
### To Scroll Horizontally in a Worksheet:

- Locate the **horizontal scroll bar** in the bottom, right corner.
- Left-click the bar and move it from left to right.

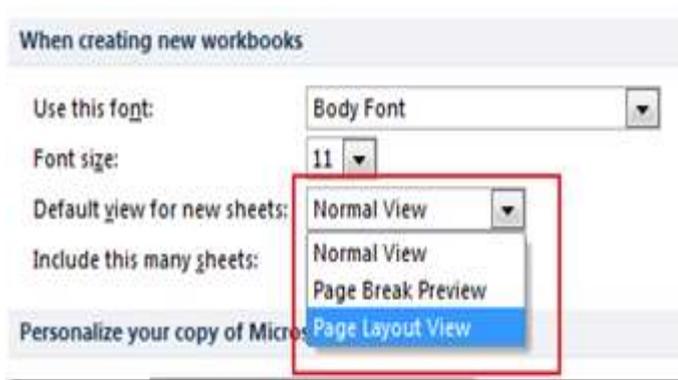
### To Change Page Views:

Excel 2016 by default displays the newly added **Worksheet** in **Normal View**. But using Excel Options you can change the **default view** for the **new** worksheet. To change the default view in Microsoft Excel 2016

- Click the File menu and then the Options link.
- In the General Options, navigate to When creating new workbooks



- Click the Default view for new sheets.
- This would display the Normal View, **Page Break View** and **Page Layout View**. Now set your preferred view as the default View.



- Click the Ok to save and confirm the changes.

As you learn more about Excel and become proficient at using it, you may want to modify some of the settings. As a **beginning user**, it is usually best to **leave** the **default settings**.

### **Spreadsheet programs:**

There are many different types of spreadsheet programs. These include,

- cloud and online spreadsheets,
- Spreadsheets that are parts of suites,
- Standalone spreadsheets
- Online spreadsheets
- Spreadsheets that are parts of suites for example, Ability Office Spreadsheet - for MS Window, Kingsoft Office Spreadsheets 2012 - For MS Window, Microsoft Office Excel - for MS Windows and Macintosh, Microsoft Works Spreadsheet - for MS Windows and PlanMaker
- Stand alone spreadsheets
- Multi-Dimensional spreadsheets

In this guide we will focus of Microsoft Excel spreadsheet program.

### **Examples of spreadsheets that can be produced using a spreadsheet application:**

Spreadsheets application can be used to produce the following spreadsheets:

- **Operational spreadsheets:** Spreadsheets used to facilitate tracking and monitoring of workflow to support operational processes, such as a listing of open purchase orders, un-reviewed vouchers and other information that previously would have been retained in manual, paper file folders. These may be used to monitor and control that financial transactions are captured accurately and completely.
- **Analytical/Management Information spreadsheets:** Spreadsheets used to support analytical review and management decision-making. These may be used to evaluate the reasonableness of financial amounts.
- **Financial:** Spreadsheets used to directly determine financial statement transaction amounts or balances that are populated into the general ledger and/or subsidiary financial systems.

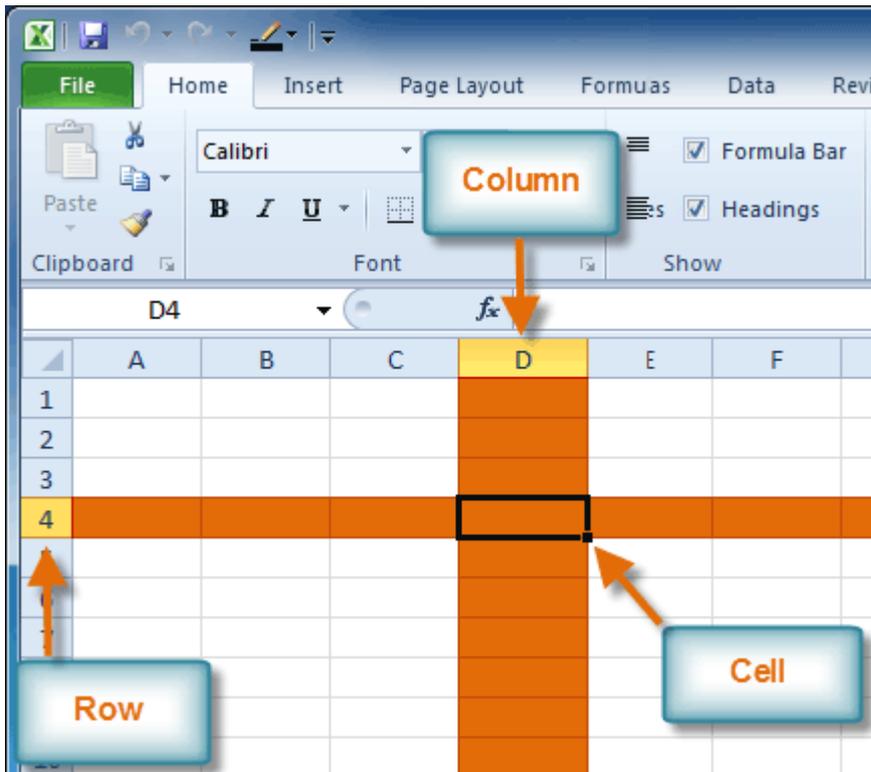
### ***Benefits of spreadsheet application:***

Microsoft Excel has some benefits you will want to consider.

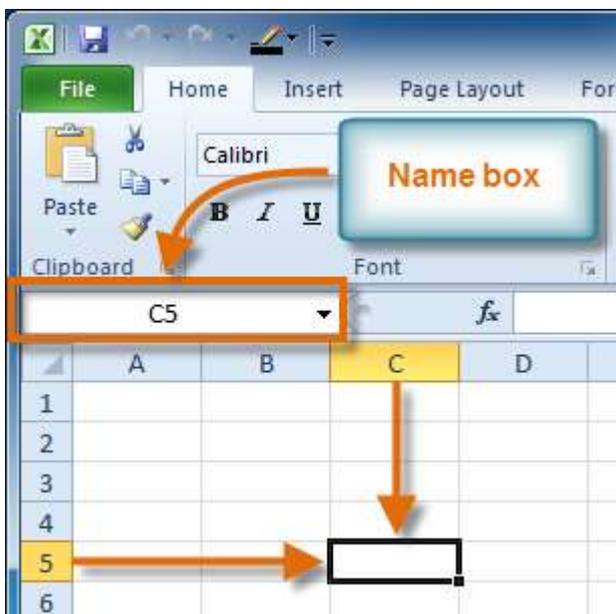
- **Familiarity:** Most people have used another Microsoft product, whether it's Word or PowerPoint. Microsoft Excel uses the standard interface you're already familiar with.
- **Size:** Microsoft Excel can store extremely large amounts of data--up to 1 million rows by 16,000 columns.
- **Charts:** Excel creates professional-looking charts and graphs with 3-D effects, shadowing and even transparency.
- **PivotTables:** PivotTables help you find answers to questions quickly, easily and responsively. You can drag and drop fields to make change the table's view.
- **Conditional Formatting:** With conditional formatting, you can change the way a "cell" (the intersection of a column and a row) looks based on the information contained. For example, you might have cells with a negative value have red text while positive values had black text.
- **Sharing:** If you use Microsoft Office SharePoint Server with your Excel, you can change your Excel spreadsheet into an HTML file so that anyone can view the data using a web browser.

### ***Properties of a spreadsheet:***

**Cells** are the basic building blocks of a **worksheet**. Cells can contain a variety of content such as **text, formatting attributes, formulas, and functions**. Each rectangle in a worksheet is called a **cell**. A **cell** is the intersection of a **row** and a **column**.



Each cell has a name, or a cell address based on which **column** and **row** it intersects. The cell address of a selected cell appears in the Name box. Here you can see that **C5** is selected.



**Note:**

- The rows are identified by number (1, 2, 3, ... 16384), the columns by letter (A, B, C, ... Z, AA, AB, ... AZ, BA, ... ZZ)
- The intersection of a row with a column, called a cell, is uniquely identified by its column and row designators, e.g. A2, B10, J13

- A cell may contain text, a number or a formula.
- **Mouse cursor:** the pointer that in Excel takes the form of a cross (2 types, depending on location) or an "insertion point" (a vertical bar with cross-bars top and bottom, like the letter "I").

### **Activity 1**

- Explain the purpose of spreadsheets
- Give examples of spreadsheets that can be produced using a spreadsheet application
- What are the benefits of using a spreadsheet application for producing and working with spreadsheets?
- Give 3 examples of spreadsheet programs
- Identify and describe the properties of a spreadsheet in terms of its purpose and use
- Open Excel.
- Practice using the **Zoom** tool.
- Minimize and maximize the Ribbon.
- Click the **Microsoft Office Button** and review the menu options.
- Add two commands to the **Quick Access** toolbar.
- Continue to explore the Excel environment.

## Lesson 2 - Starting a Workbook

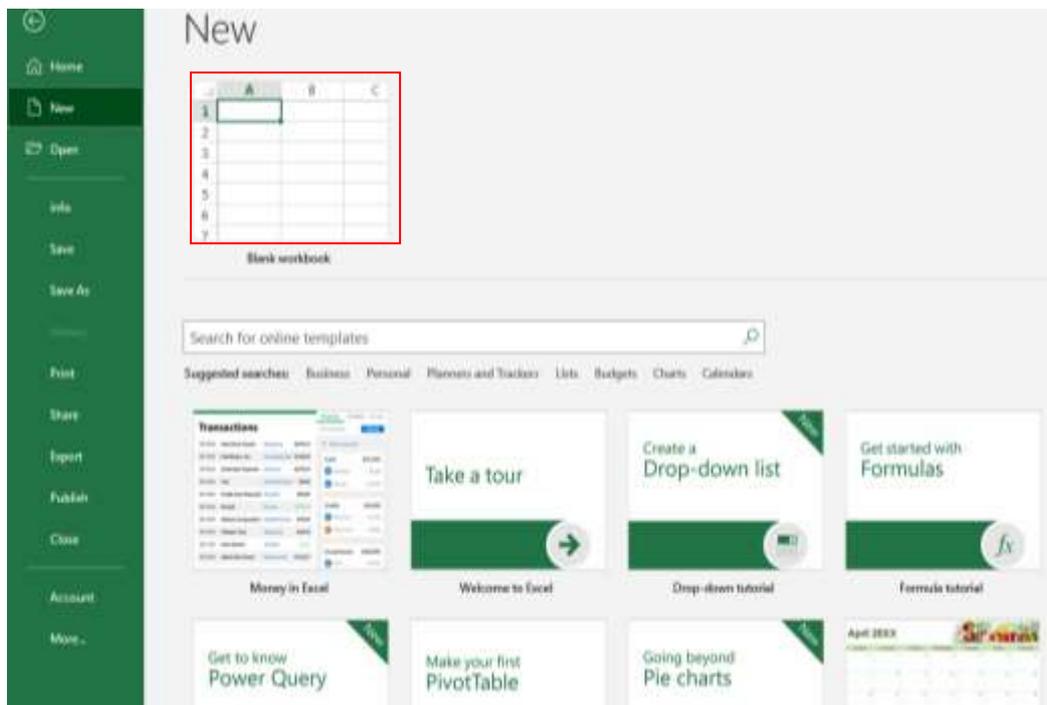


Excel files are called **workbooks**. Each workbook holds one or more **worksheets** (also known as "spreadsheets"). You will need to know how to **insert text** and **numbers** into Excel workbooks to be able to use it to calculate, analyze, and organize data. In this lesson, you will learn how to create a new workbook, insert and delete text, navigate a worksheet, and save an Excel workbook.

### Your First Workbook

#### **To Create a New, Blank Workbook:**

1. Click the **File** tab. This takes you to **Backstage view**.
2. Select **New**.
3. Select **Blank workbook** under **Available Templates**. It will be highlighted by default.
4. Click New, blank workbook appears in the Excel window.



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When you first open Excel, the software opens to a new, blank workbook.

To save time, you can create your document from a **template**, which you can select under available Templates. We will talk more about this in a later lesson.

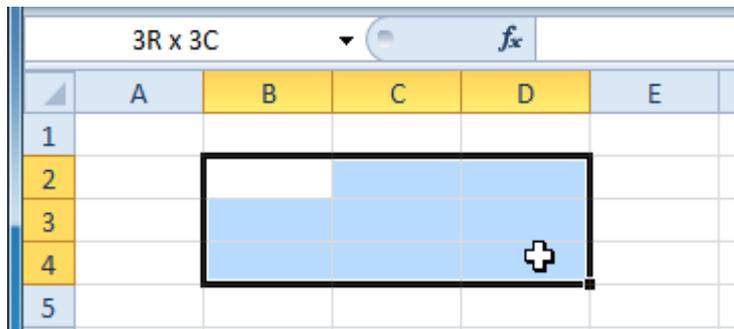
### To Select a Cell:

1. Click on a **cell** to select it. When a cell is selected you will notice that the **borders** of the cell appear bold  and the **column heading** and **row heading** of the cell are highlighted.
2. Release your mouse. The cell will stay selected until you click on another cell in the worksheet.

You can also navigate through your worksheet and select a cell by using the **arrow keys** on your keyboard.

### To Select Multiple Cells:

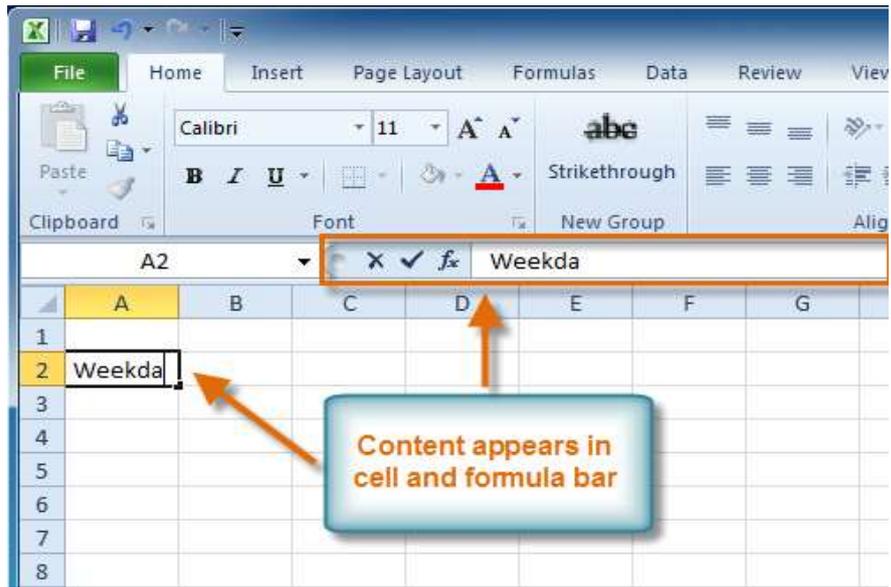
1. Click and drag your mouse until all of the adjoining cells you want are highlighted.



2. Release your mouse. The cells will stay selected until you click on another cell in the worksheet.

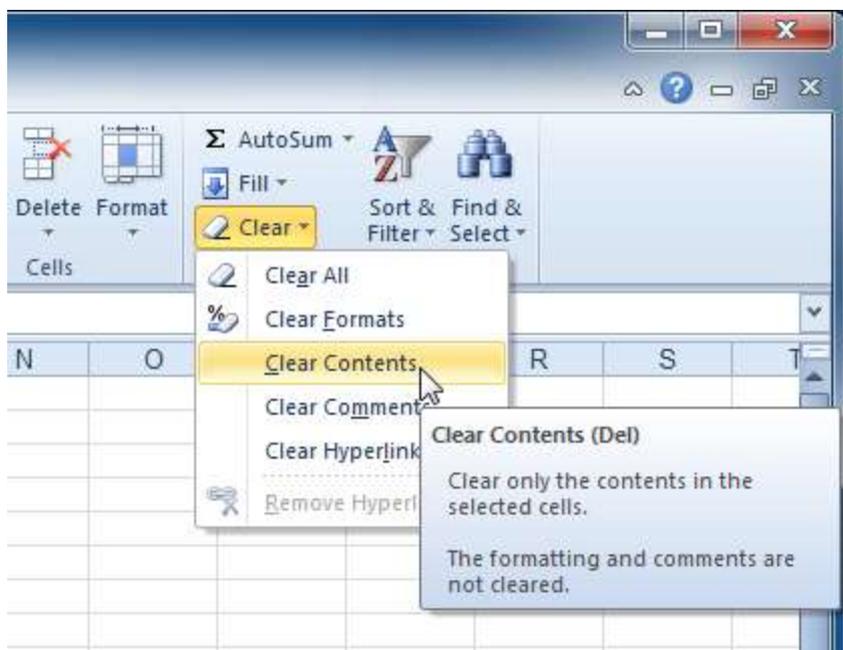
### To Insert Text:

1. Click on a cell to select it.
2. Enter content into the selected cell using your keyboard. The content appears in the **cell** and in the **formula bar**. You also can enter or edit cell content from the formula bar.



**To Edit or Delete Text:**

1. Select the cells which contain content you want to delete.
2. Click the **Clear** command on the ribbon. A **dialog box** will appear.
3. Select **Clear Contents**.



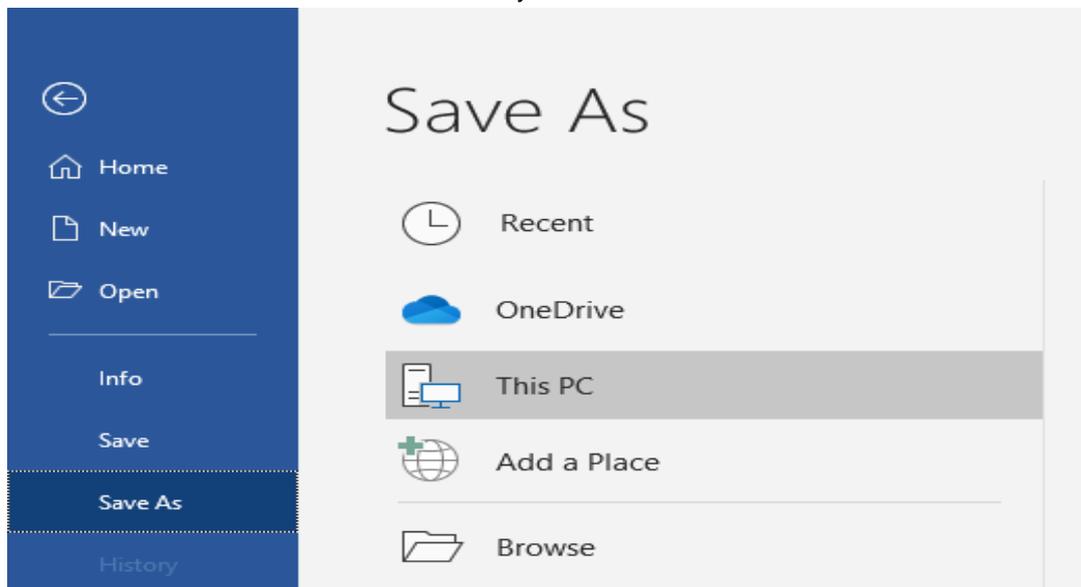
You can also use your keyboard's **Backspace** key to delete content from a **single cell** or **Delete** key to delete content from **multiple cells**.

### ***To Move Through a Worksheet Using the Keyboard:***

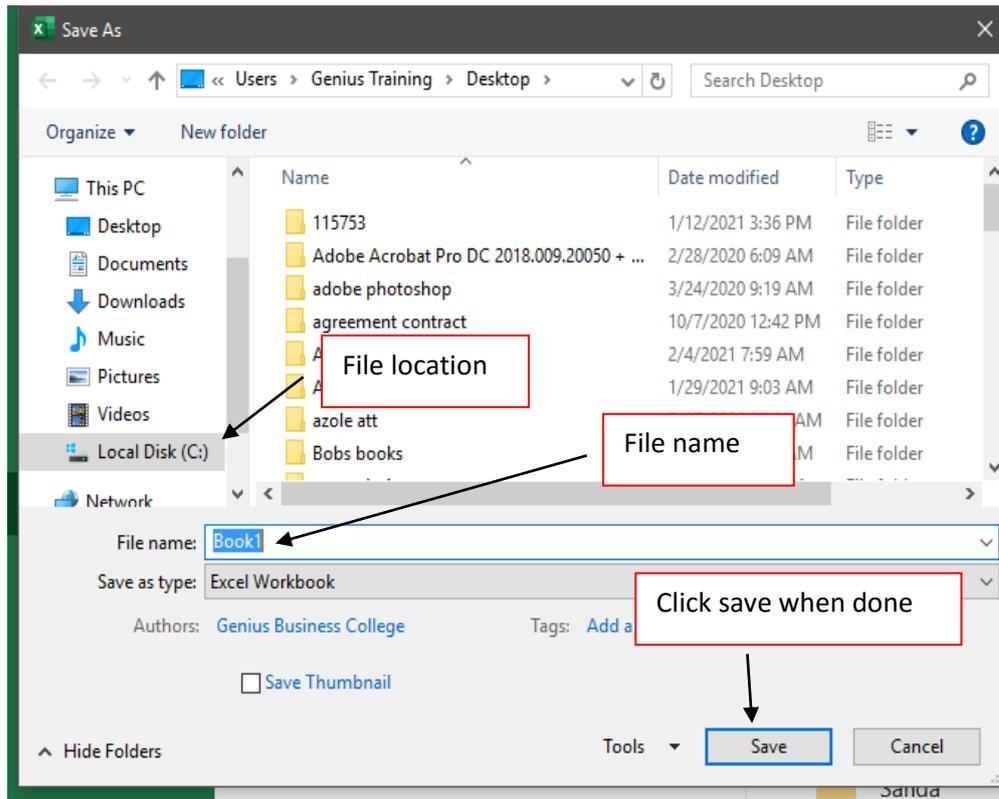
- Press the **Tab** key to move to the **right** of the selected cell.
- Press the **Shift** key and then the **Tab** key to move to the **left** of the selected cell.
- Use the **Page Up** and **Page Down** keys to navigate the worksheet.
- Use the arrow keys.

### ***To Save the Workbook:***

1. Click the **File** tab.
2. Select **Save As** or **Save**
  - **Save As** allows you to name the file and choose a location to save the spreadsheet. Choose **Save As** if you'd like to save the file for the **first** time or if you'd like to save the file as a different name.
  - Select **Save** if the file has already been named



3. Select the location where you wish to save the workbook.
4. Enter a name for the workbook and click **Save**.



You can save a workbook in many ways, but the two most common are as an **Excel Workbook**, which saves it with a 2016 file extension, and as an **Excel 97-2003 Workbook**, which saves the file in a compatible format so people who have earlier versions of Excel can open the file.

**Note:**

- Saving will allow you to view, edit or use the spreadsheet another time. If you do not save your spreadsheet, all your information will be lost and you will have to start from scratch again the next time you want to use spreadsheet application.
- You should save your spreadsheet in a location that will be easy to retrieve it; for example, desktop or documents folder.
- When creating new spreadsheets, the name of the new spreadsheet must allow the spreadsheet to be easily identified in terms of its purpose and content. For example, you can use the name September Wages to save wage information for that month.

**Close the active workbook window:**

1. Click the workbook window that you want to close.
2. In the upper-right corner of the workbook window, click **Close Window** .

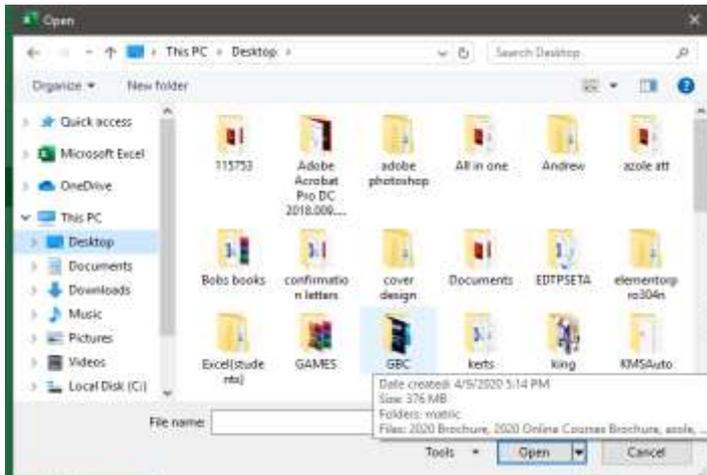
**NOTE** If the window is the only open window of the workbook, the whole workbook is closed. If there are more workbook windows of the same workbook, only the active workbook window is closed.

**Close a workbook:**

1. Activate the workbook that you want to close.
2. Click the **File**, and then click **Close**.

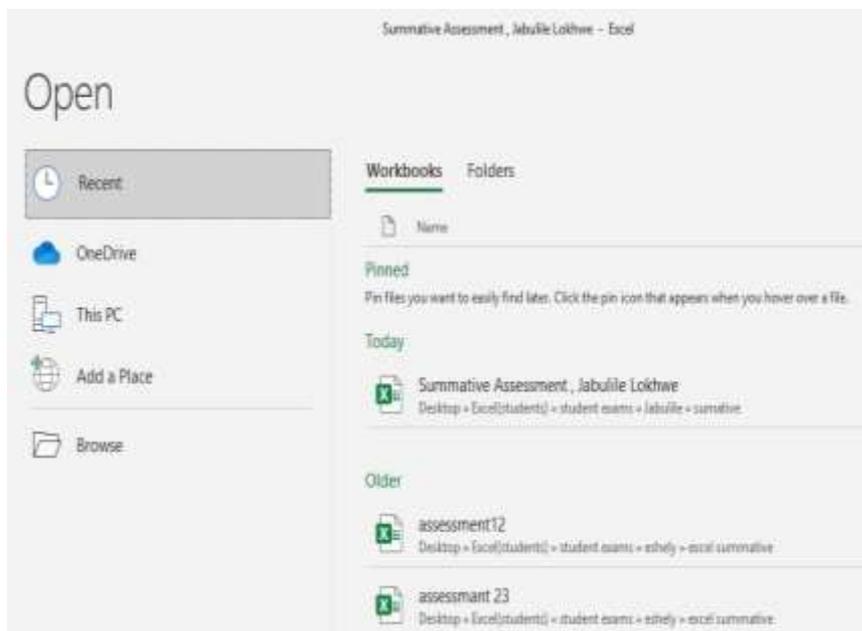
**To Open an Existing Workbook:**

1. Click the **File** tab. This takes you to **Backstage view**
2. Select **Open**. The Open dialog box appears.



3. Select your desired workbook and then click **Open**.

If you have opened the existing workbook recently, it may be easier to choose **Recent** from the **File** tab instead of **Open** to search for your workbook.



To close the workbook you have opened, follow the steps outlined above.

**Exiting Spreadsheet:**

When you are ready to quit Excel, you have several choices for shutting down the program:

- Choose File→ Exit.
- Press Alt+F4.
- Click the Close button (the X) in the upper-right corner of the Excel 2016 program window.

## **Activity 2**

- Open Excel.
- Create a **new, blank workbook**.
- Practice **entering text** into cells.
- Practice **deleting text** using the Backspace and Delete keys.
- Navigate through the sheet using the **Tab** key.
- Save the spreadsheet.
- Close the spreadsheet
- Open and close a spreadsheet
- Close the spreadsheet program

## Lesson 3 – Producing a spreadsheet

Use the instructions from lesson one to open a new workbook. In this lesson we will learn how to produce a spreadsheet.

### Cell Content:

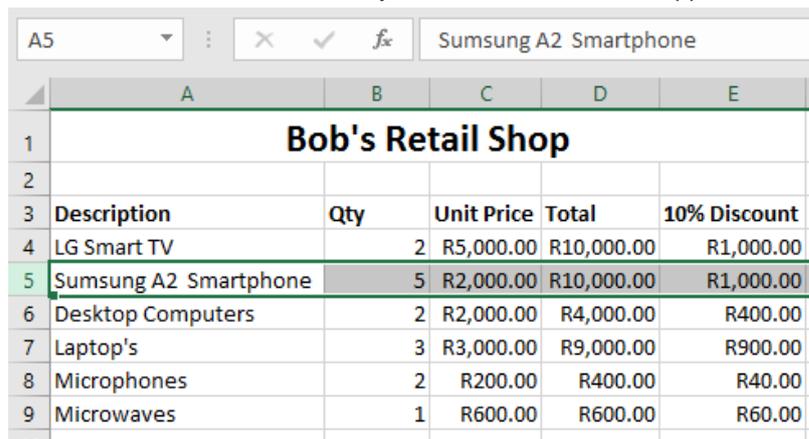
Each cell can contain its own text, formatting, comments, formulas, and functions.

- **Text:** Cells can contain letters, numbers, and dates.
- **Formatting attributes:** Cells can contain formatting attributes that change the way letters, numbers, and dates are displayed. For example, dates can be formatted as MM/DD/YYYY or Month/D/YYYY.
- **Comments:** Cells can contain comments from multiple reviewers.
- **Formulas and Functions:** Cells can contain formulas and functions that calculate cell values. For example, *SUM (cell 1, cell 2...)* is a formula that can add the values in multiple cells.

Enter text in your spreadsheet at least 8 rows and 5 columns. Your text must include text, numbers and dates.

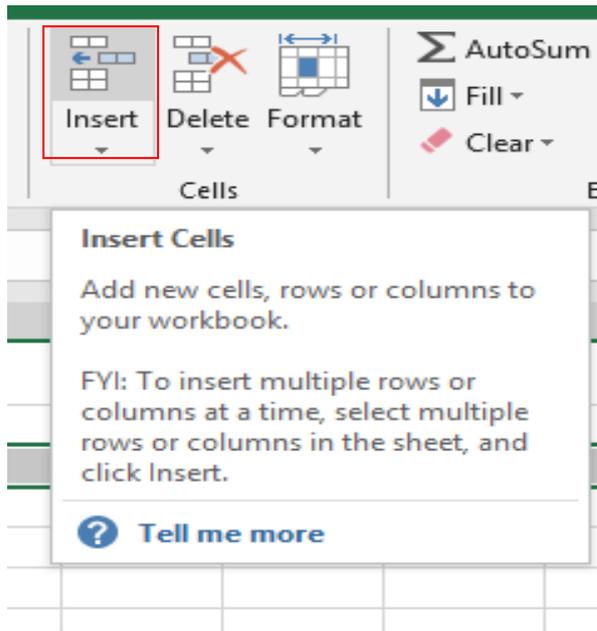
### To Insert Rows:

1. Select the **row below** where you want the new row to appear.



Bob's Retail Shop				
Description	Qty	Unit Price	Total	10% Discount
LG Smart TV	2	R5,000.00	R10,000.00	R1,000.00
Sumsung A2 Smartphone	5	R2,000.00	R10,000.00	R1,000.00
Desktop Computers	2	R2,000.00	R4,000.00	R400.00
Laptop's	3	R3,000.00	R9,000.00	R900.00
Microphones	2	R200.00	R400.00	R40.00
Microwaves	1	R600.00	R600.00	R60.00

2. Click the **Insert** command on the **Home** tab.



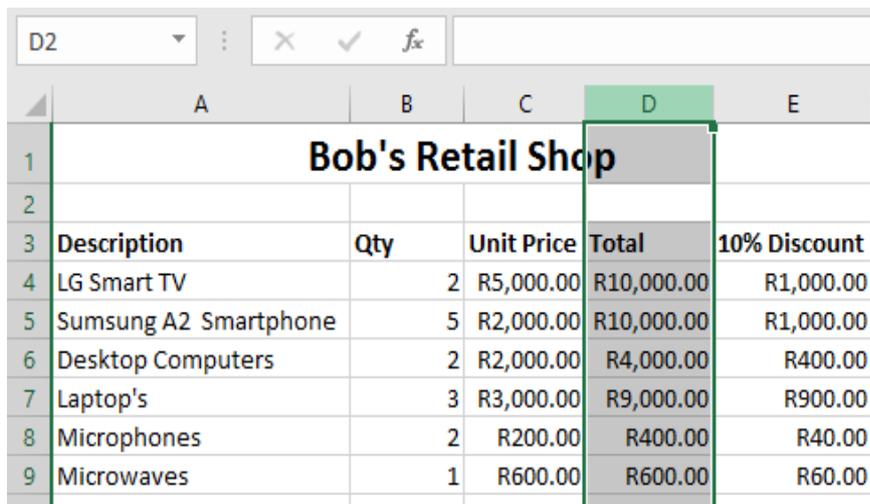
3. The new row appears in your worksheet.

Bob's Retail Shop					
Description	Qty	Unit Price	Total	10% Discount	
LG Smart TV	2	R5,000.00	R10,000.00	R1,000.00	
Samsung A2 Smartphone	5	R2,000.00	R10,000.00	R1,000.00	
Desktop Computers	2	R2,000.00	R4,000.00	R400.00	
Laptop's	3	R3,000.00	R9,000.00	R900.00	
Microphones	2	R200.00	R400.00	R40.00	
Microwaves	1	R600.00	R600.00	R60.00	

When inserting new rows, columns, or cells, you will see the **Insert Options** button  by the inserted cells. This button allows you to choose how Excel formats them. By default, Excel formats inserted rows with the same formatting as the cells in the row above them. To access more options, hover your mouse over the Insert Options button and click on the drop-down arrow that appears.

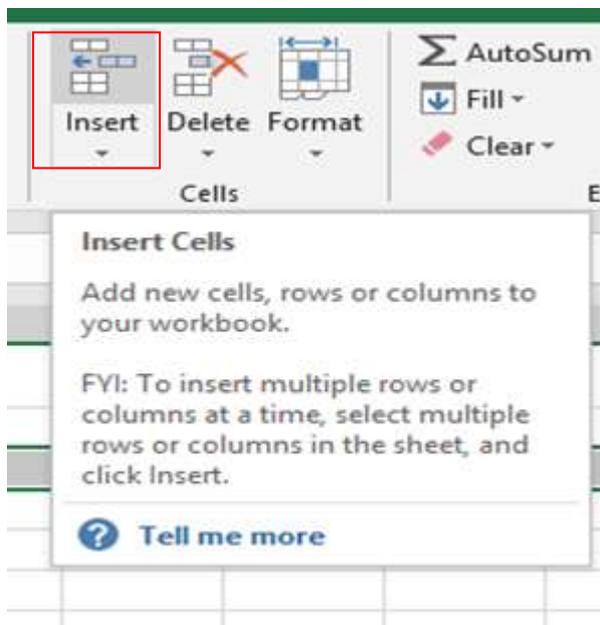

**To Insert Columns:**

1. Select the **column** to the *right* of where you want the new column to appear. For example, if you want to insert a column between A and B, select column B.



	A	B	C	D	E
1	<b>Bob's Retail Shop</b>				
2					
3	<b>Description</b>	<b>Qty</b>	<b>Unit Price</b>	<b>Total</b>	<b>10% Discount</b>
4	LG Smart TV	2	R5,000.00	R10,000.00	R1,000.00
5	Sumsung A2 Smartphone	5	R2,000.00	R10,000.00	R1,000.00
6	Desktop Computers	2	R2,000.00	R4,000.00	R400.00
7	Laptop's	3	R3,000.00	R9,000.00	R900.00
8	Microphones	2	R200.00	R400.00	R40.00
9	Microwaves	1	R600.00	R600.00	R60.00

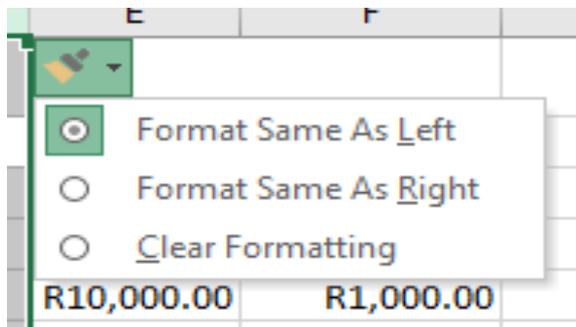
2. Click the **Insert** command on the **Home** tab.



3. The new column appears in your worksheet.

	A	B	C	D	E	F
1	<b>Bob's Retail Shop</b>					
2						
3	<b>Description</b>	<b>Qty</b>	<b>Unit Price</b>		<b>Total</b>	<b>10% Discount</b>
4	LG Smart TV	2	R5,000.00		R10,000.00	R1,000.00
5	Sumsung A2 Smartphone	5	R2,000.00		R10,000.00	R1,000.00
6	Desktop Computers	2	R2,000.00		R4,000.00	R400.00
7	Laptop's	3	R3,000.00		R9,000.00	R900.00
8	Microphones	2	R200.00		R400.00	R40.00
9	Microwaves	1	R600.00		R600.00	R60.00

By default, Excel formats inserted columns with the same formatting as the column to the left of them. To access more options, hover your mouse over the **Insert Options** button and click on the drop-down arrow that appears.



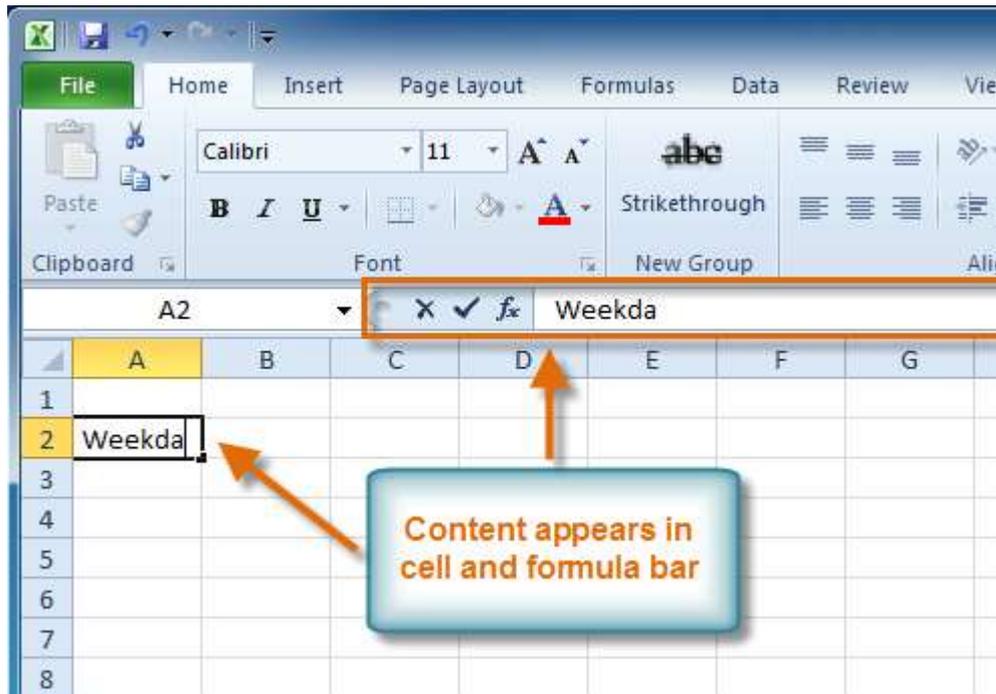
NOTE: When inserting rows and columns, make sure you select the row or column by clicking on its heading so that all the cells in that row or column are selected. If you select just a cell in the row or column then only a new cell will be inserted.

**To Delete Rows and Columns:**

- Select the row or column you'd like to delete.
- Click the Delete command in the Cells group on the Home tab.
- The rows or columns are deleted from your worksheet.

**To Insert Text:**

1. Click on a cell to select it.
2. Enter content into the selected cell using your keyboard. The content appears in the **cell** and in the **formula bar**. You also can enter or edit cell content from the formula bar.



**NOTE:**

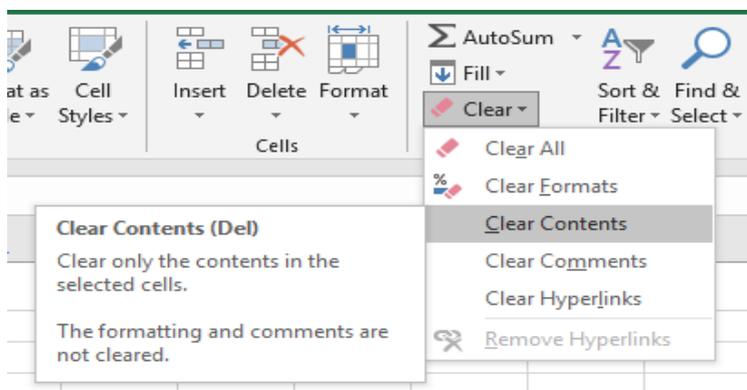
To correctly create a spreadsheet, you should know the differences between data cells, label cells, and formula cells.

- A formula cell is one with some sort of calculation in it.
- A data cell contains numbers usually, but it could be other kinds of data like dates or times.
- A label is normally a cell with text that acts as a heading for something in another.

Incorrect input of information will result in error messages being displayed.

**To Edit or Delete Text:**

4. Select the cells which contain content you want to delete.
5. Click the **Clear** command on the ribbon. A **dialog box** will appear.
6. Select **Clear Contents**.



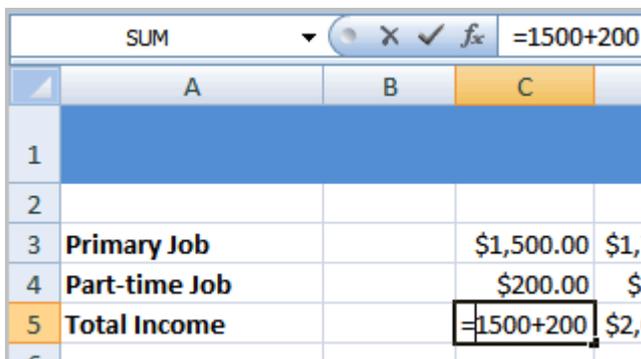
You can also use your keyboard's **Backspace** key to delete content from a **single cell** or **Delete** key to delete content from **multiple cells**.

### Simple Formulas:

Excel can be used to **calculate** and **analyze** numerical information; however, you will need to know how to write **formulas** to maximize Excel's capabilities. A formula is an equation that performs a calculation using values in the worksheet. You will learn how to **create simple formulas** using mathematical operators such as the addition, subtraction, multiplication, and division signs.

#### To Create a Simple Formula that Adds Two Numbers:

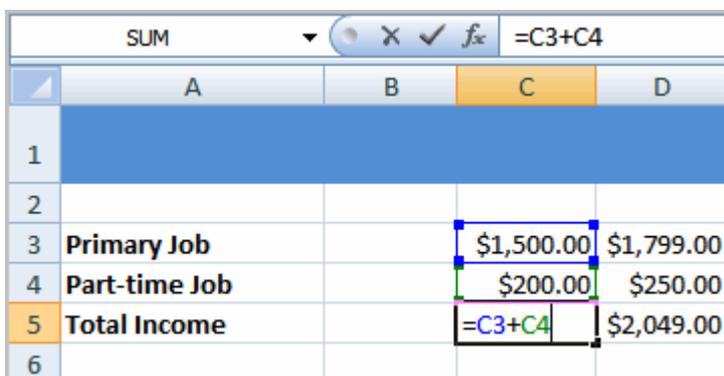
- Click the cell where the formula will be defined (C5, for example).
- Type the equal sign (=) to let Excel know a formula is being defined.
- Type the first number to be added (e.g., 1500)
- Type the **addition sign (+)** to let Excel know that an add operation is to be performed.
- Type the second number to be added (e.g., 200)
- Press **Enter** or click the **Enter button** on the Formula bar to complete the formula.



	A	B	C	D
1				
2				
3	Primary Job		\$1,500.00	\$1,
4	Part-time Job		\$200.00	\$
5	Total Income		=1500+200	\$2,

#### To Create a Simple Formula that Adds the Contents of Two Cells:

- Click the cell where the answer will appear (C5, for example).
- Type the equal sign (=) to let Excel know a formula is being defined.
- Type the cell number that contains the first number to be added (C3, for example).
- Type the **addition sign (+)** to let Excel know that an add operation is to be performed.
- Type the cell address that contains the second number to be added (C4, for example).
- Press **Enter** or click the **Enter button** on the Formula bar to complete the formula.



	A	B	C	D
1				
2				
3	Primary Job		\$1,500.00	\$1,799.00
4	Part-time Job		\$200.00	\$250.00
5	Total Income		=C3+C4	\$2,049.00
6				

#### To Create a Simple Formula using the Point and Click Method:

1. Select the cell where the answer will appear (B4, for example).

	A	B	C	D
1	Hardwood Floor Repair			
2	Hours	Rate		
3	3.4	\$ 25.00		
4	Total			
5				

2. Type the **equal sign (=)**.
3. Click on the **first cell** to be included in the formula (A3, for example).

	A	B	C	D
1	Hardwood Floor Repair			
2	Hours	Rate		
3	3.4	\$ 25.00		
4	Total	=A3		
5				

4. Type the operator you need for your formula. For example, type the **multiplication sign (\*)**.
5. Click on the **next cell** in the formula (B3, for example).

	A	B	C	D
1	Hardwood Floor Repair			
2	Hours	Rate		
3	3.4	\$ 25.00		
4	Total	=A3*B3		
5				

6. Press **Enter**. The formula will be calculated and the value will be displayed in the cell.

### ***To Create a Simple Formula that Multiplies the Contents of Two Cells:***

- Select the cell where the answer will appear (E32, for example).
- Type the equal sign (=) to let Excel know a formula is being defined.
- Click on the **first cell** to be included in the formula (C9, for example) or type a number.
- Type the multiplication symbol (\*) by pressing the Shift key and then the number 8 key. The operator displays in the cell and Formula bar.
- Click on the **next cell** in the formula or type a number (12, for example).
- Press **Enter** or click the **Enter button** on the Formula bar to complete the formula.

SUM						
	A	B	C	D	E	F
24	<b>Credit</b>					
25	Visa	8/5/2008	\$75.00	\$0.00	\$0.00	\$65.32
26	Mastercard	8/5/2008	\$37.42	\$23.51	\$83.25	\$25.67
27	Discover	8/5/2008	\$30.52	\$30.00	\$32.89	\$31.72
28	Store Credit Card	8/5/2008	\$87.56	\$66.79	\$37.58	\$42.55
29	<b>Total</b>		\$1,397.09			
30	<b>Remaining</b>		\$302.91			
31						
32					=C9*12	
33						

**To Create a Simple Formula that Divides One Cell by Another:**

- Click the cell where the answer will appear.
- Type the equal sign (=) to let Excel know a formula is being defined.
- Click on the **first cell** to be included in the formula.
- Type a division symbol. The operator displays in the cell and Formula bar.
- Click on the **next cell** in the formula.
- **Enter** or click the **Enter button** on the Formula bar to complete the formula.

**To Create a Formula Using Cell References:**

1. Select the cell where the answer will appear (B3, for example).

B3				
	A	B	C	D
1	Budget for June	\$ 400.00		
2	Budget for July	\$ 300.00		
3	<b>Total Budget</b>			
4				

2. Type the **equal sign (=)**.
3. Type the cell address that contains the first number in the equation (B1, for example).

SUM		X	✓	fx	=B1
	A	B	C	D	
1	Budget for June	\$ 400.00			
2	Budget for July	\$ 300.00			
3	<b>Total Budget</b>	=B1			
4					

4. Type the operator you need for your formula. For example, type the **addition sign (+)**.
5. Type the cell address that contains the second number in the equation (B2, for example).

SUM		X	✓	fx	=B1+B2
	A	B	C	D	
1	Budget for June	\$ 400.00			
2	Budget for July	\$ 300.00			
3	<b>Total Budget</b>	=B1+B2			
4					

6. Press **Enter**. The formula will be calculated and the value will be displayed in the cell.

B3		fx	=B1+B2	
	A	B	C	D
1	Budget for June	\$ 400.00		
2	Budget for July	\$ 300.00		
3	<b>Total Budget</b>	\$ 700.00		
4				

If you change a value in either B1 or B2, the total will automatically recalculate.

B3		fx	=B1+B2				
	A	B	C	D	E	F	G
1	Budget for June	\$ 400.00					
2	Budget for July	\$ 200.00					
3	<b>Total Budget</b>	\$ 600.00					
4							
5							
6							
7							
8							
9							
10							
11							

Changed B2 value from \$300.00 to \$200.00

Since B3 contains the formula =B1+B2, the value in B3 is automatically recalculated to equal \$600.00

### ***Checking the integrity of data:***

Data integrity is the accuracy and consistency of data, indicated by an absence of any mistakes and use of incorrect formulas. Data integrity is imposed within a spreadsheet at its design stage through the use of standard rules and procedures, and is maintained through the use of error checking and validation routines. You can check the integrity of your spreadsheet information by;

- **Check the data against data source:** Information is available through a variety of sources, including books, newspapers, magazines and the Internet. Unfortunately, everything you find isn't necessarily valid and trustworthy. This poses a problem when you're using the information for research. With this in mind, it's vital to always take time to validate information, regardless of where it comes from. Doing so may take a little extra time, but knowing you have factual data is worth the effort.
  - Sources: Very little information is written from first-hand experience. This means that every author acquired it from a source. As you review information you know isn't first-hand knowledge, look for its sources. Not all authors list their sources; when they don't, that might be a red flag, and when they do, it gives you the opportunity to validate it, as questionable sources are another red flag.
  - Credentials: Anyone can produce information, but that doesn't make them reputable. Always take the time to find out about the credentials of the author of any information you want to validate. Oftentimes, the person who's writing about a particular subject has the education and life experience to make them somewhat of an expert in the field, something that increases the validity of what they have to say.

There are three main criteria for validating information: **reliability**, **accuracy** and **currency**.

- **Check totals:** you can do this by calculating the information manually or using a calculator. Compare your totals with the ones in your spreadsheet.
- **Audit formulae:** check if you typed the formulae correctly, or if you used to correct formulae by comparing to the list of formulae. A minus instead of a plus sign in a formula will produce wrong results.

### ***The benefits of saving a file in different formats:***

A **file format** is a standard way that information is encoded for storage in a computer file. Examples of file formats include Text, CSV, HTML, pdf. xlsx is the default XML-based file format for Excel 2016 and Excel 2010.

- You can save a file in a different format so that people can read it even if they don't have the application you used to create it.
- Some formats also make it easier and quicker to send a file via e-mail.
- You can also change the format of a picture so you can use it in different applications.

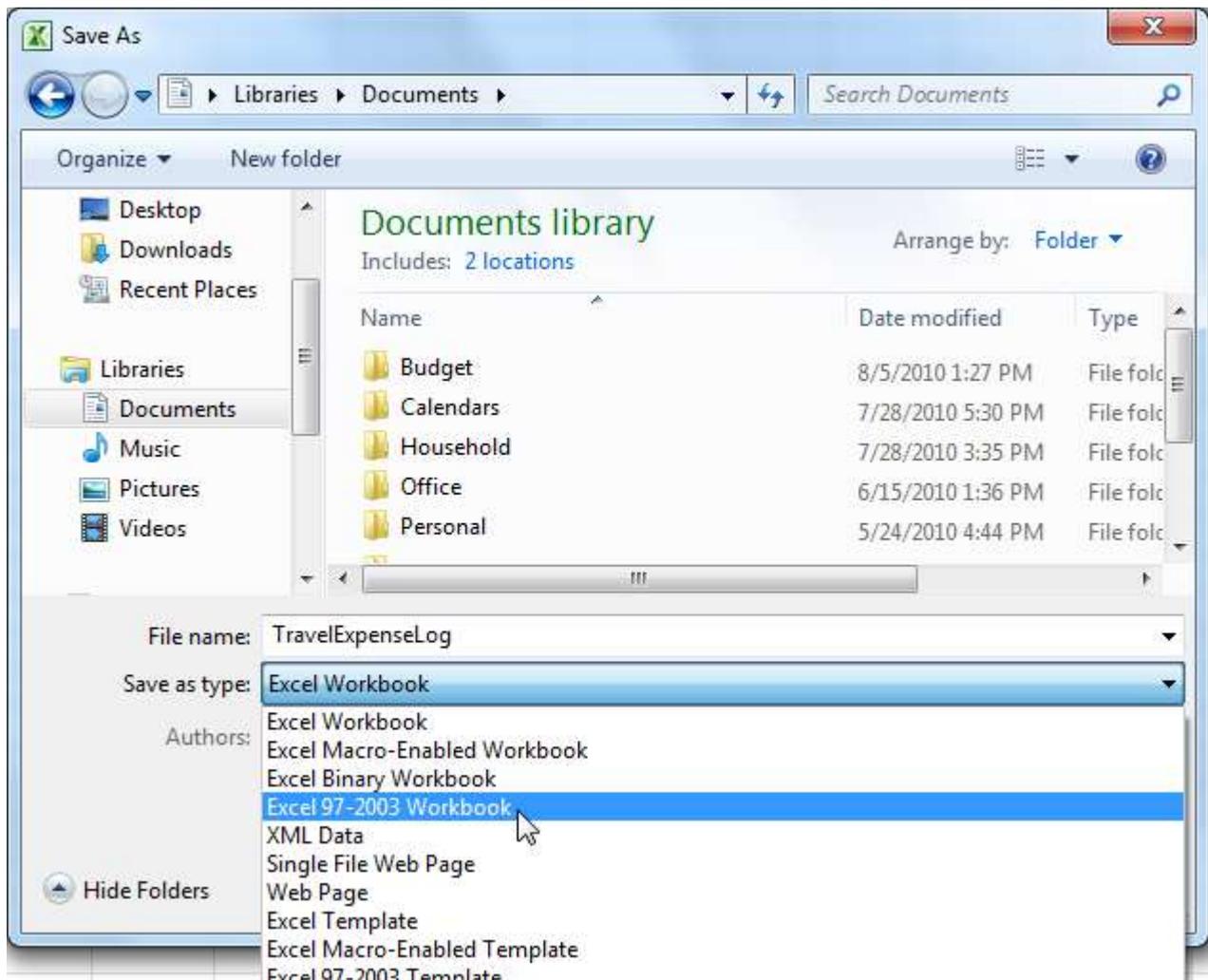
### **Saving a spreadsheet with a different file format:**

You can save a Microsoft Excel 2016 file in another file format by clicking the **File** tab, and then clicking **Save As**. The file formats that are available in the **Save As** dialog box vary, depending on what type of sheet is active (a worksheet, chart sheet, or other type of sheet).

### **To Save As an Excel 97-2003 Workbook:**

You can share your workbooks with anyone using **Excel 2016 or 2010**, since they use the same **file format**. However, earlier versions of Excel use a different file format, so if you want to share your workbook with someone using an earlier version of Excel, you will need to save it as an **Excel 97-2003 Workbook**.

1. Click the **File** tab.
2. Select **Save As**.
3. In the **Save as type** drop-down menu, select **Excel 97-2003 Workbook**.

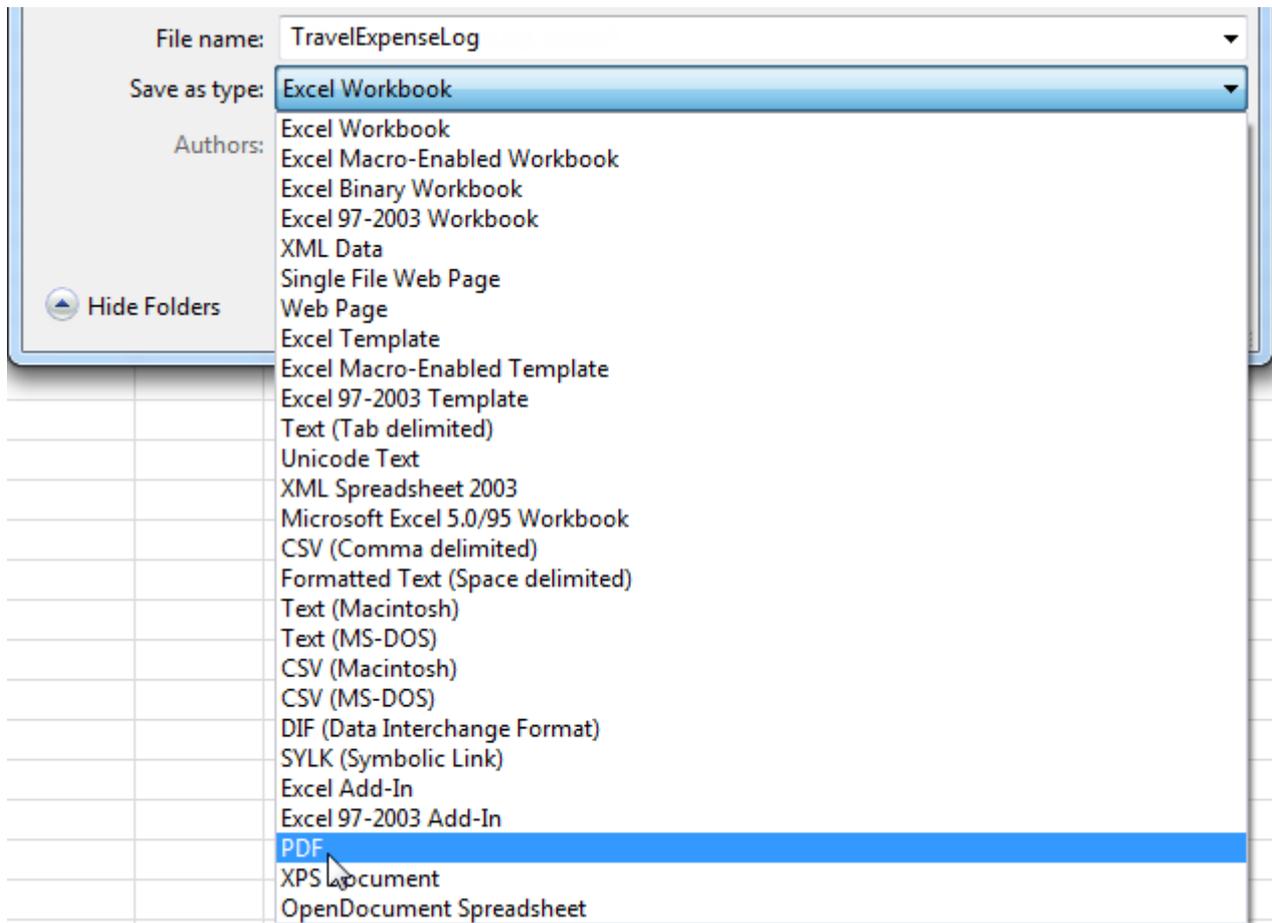


4. Select the location you wish to save the file.
5. Enter a name for the file and click **Save**.

### To Save As a PDF:

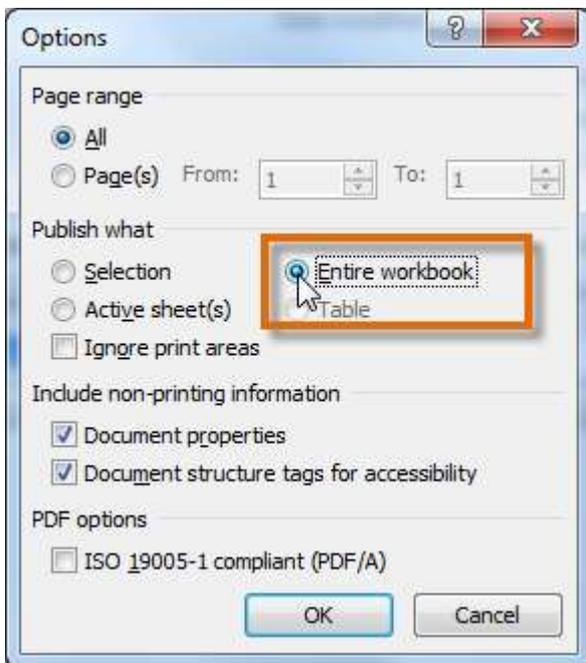
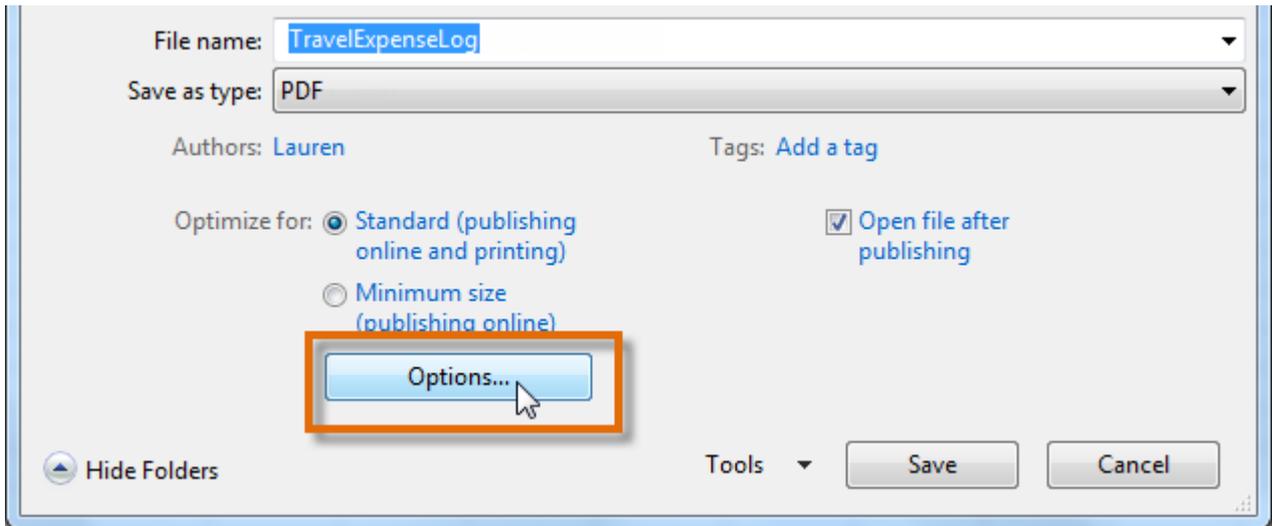
Saving your workbook as an **Adobe Acrobat Document**, which is called a **PDF file**, can be especially useful when your recipients do not have Excel. A PDF file will make it possible for recipients to view the content from your workbook, but they will not be able to edit anything.

1. Click the **File** tab.
2. Select **Save As**.
3. In the **Save as type** drop-down menu, select **PDF**.



4. Select the location you wish to save the file.
5. Enter a name for the file and click **Save**.

Excel defaults to saving the active worksheet only. If you have multiple worksheets and want to save all of them in the same PDF file, click on **Options**. The Options dialog box will appear. Select **Entire workbook** from the Options dialog box and click **OK**.



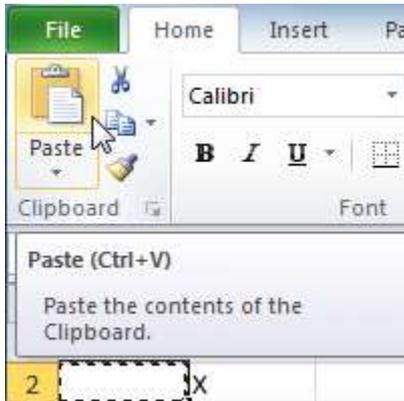
### Activity 3

Use the Budget or any Excel workbook you choose to complete this challenge.

- Open a **workbook**.
- Insert a **column**.
- Insert a row.
- Delete a column.
- Insert text, numbers and dates into your spreadsheet
- Write a simple **addition** formula.

- Write a simple subtraction formula using the **point and click method**.
- Write a simple multiplication formula using **cell references**.
- Write a simple **division** formula.
- Check your data against data source
- check-totals in your spreadsheet
- Audit formulae in your spreadsheet
- Explain the differences between **data cells, label cells** and **formula cells**
- Explain the benefits of saving a file in different formats
- Save your workbook so that it is compatible with Excel 2003. Close the workbook
- Open another existing Excel 2016 workbook. Save the workbook as a PDF file. Close the workbook

## Lesson 4 – Editing a spreadsheet

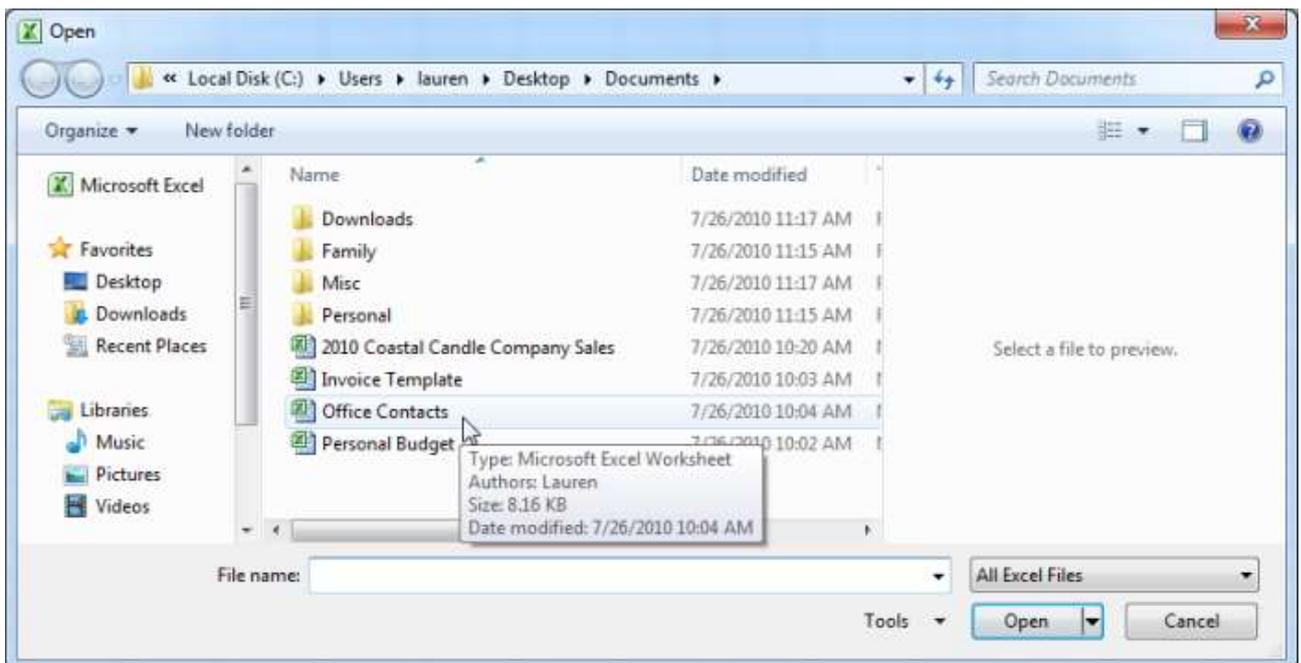


Once you have entered information into a spreadsheet, you will need to be able to **edit** it. In this lesson, you will learn how to select and de-select cells, move, copy, delete cells, use the automatic fill feature to automatically enter data in cells and replace text in a spreadsheet.

### Editing Cells

#### **To Open an Existing Workbook:**

1. Click the **File** tab. This takes you to **Backstage view**.
2. Select **Open**. The Open dialog box appears.



3. Select your desired workbook and then click **Open**.

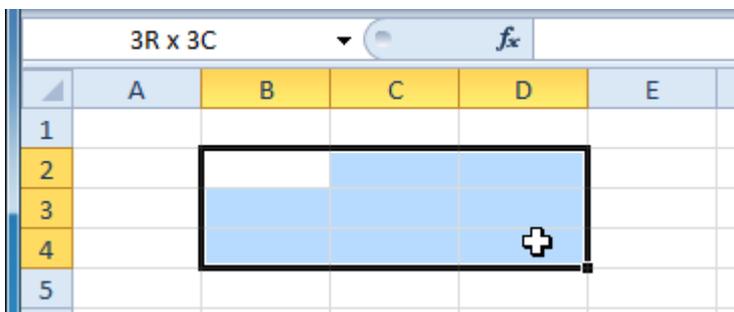
**To Select a Cell:**

1. Click on a cell to select it. When a cell is selected you will notice that the **borders** of the cell appear bold  and the **column heading** and **row heading** of the cell are highlighted.
2. Release your mouse. The cell will stay selected until you click on another cell in the worksheet.

You can also navigate through your worksheet and select a cell by using the **arrow keys** on your keyboard.

**To Select Multiple Cells:**

1. Click and drag your mouse until all of the adjoining cells you want are highlighted.

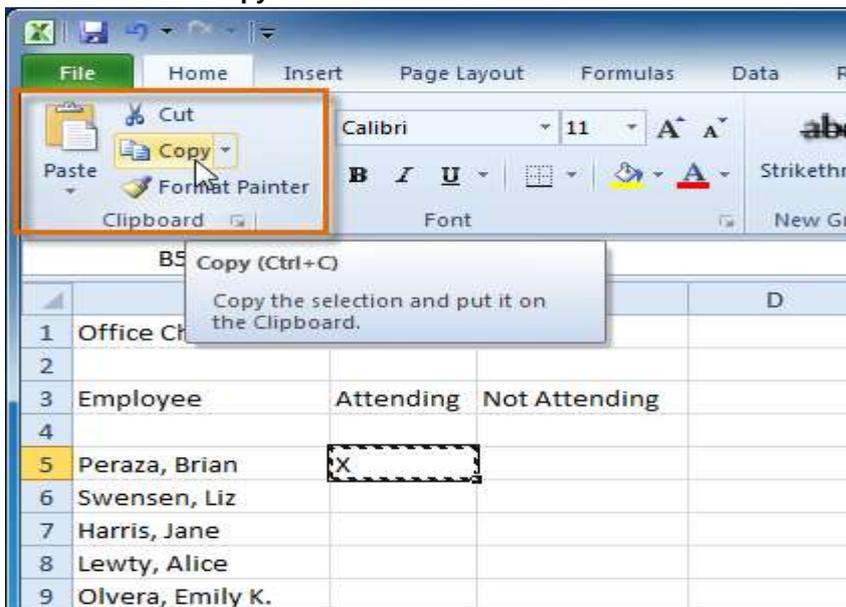


2. Release your mouse. The cells will stay selected until you click on another cell in the worksheet.

**1. To edit text:**

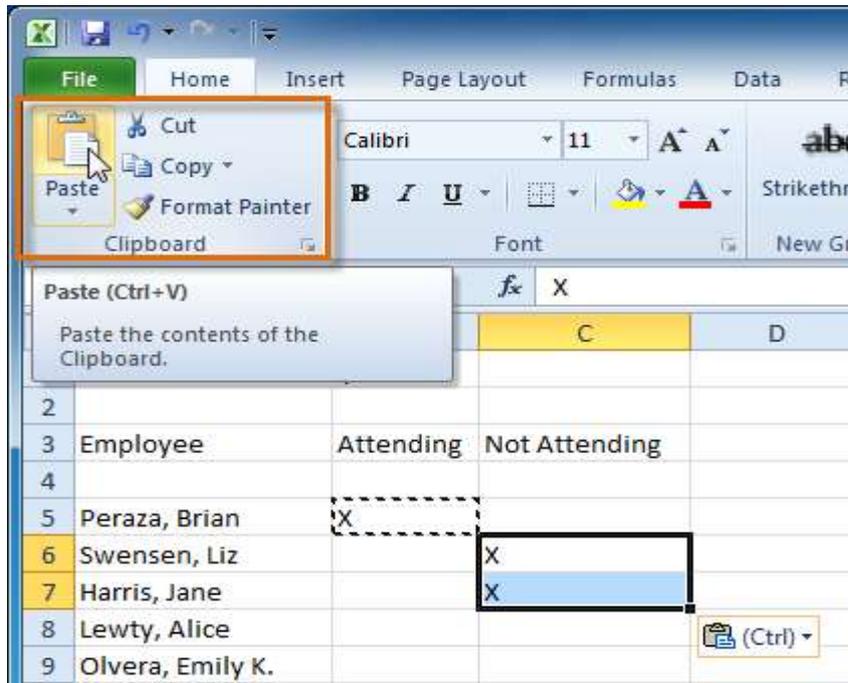
**To Copy and Paste Cell Content:**

1. Select the cells you wish to copy.
2. Click the **Copy** command. The border of the selected cells will change appearance.



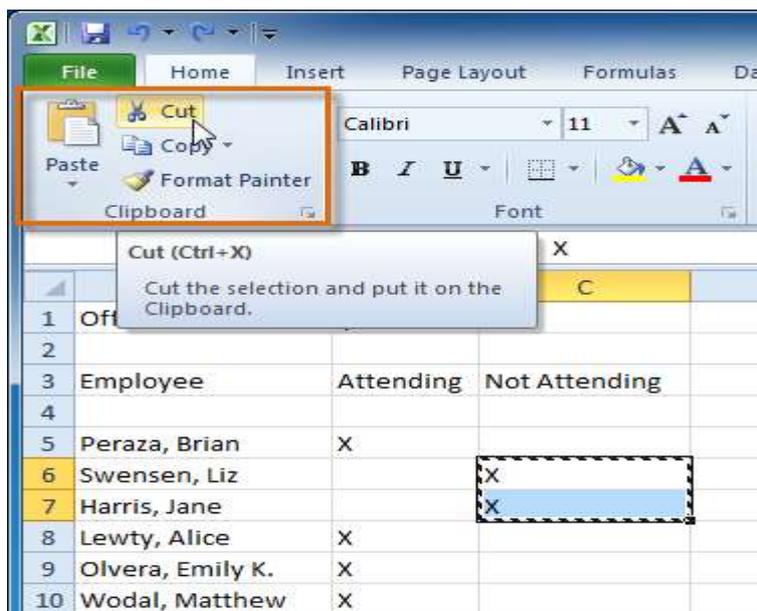
3. Select the cell or cells where you want to paste the content.

- Click the **Paste** command. The copied content will be entered into the highlighted cells.

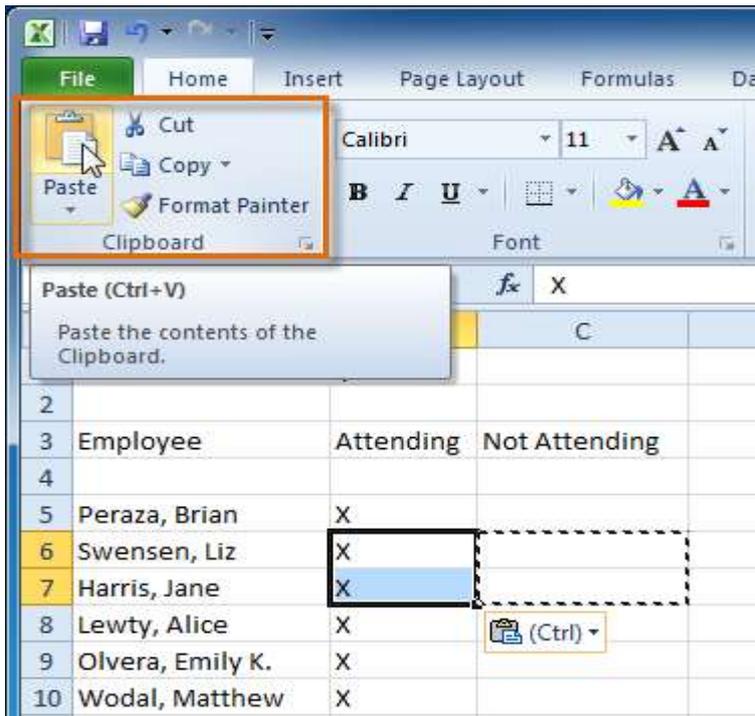


**To Cut and Paste Cell Content:**

- Select the cells you wish to cut.
- Click the **Cut** command. The border of the selected cells will change appearance.

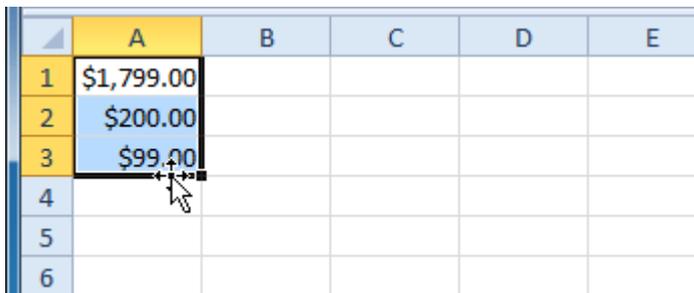


- Select the cells where you want to paste the content.
- Click the **Paste** command. The cut content will be removed from the original cells and entered into the highlighted cells.

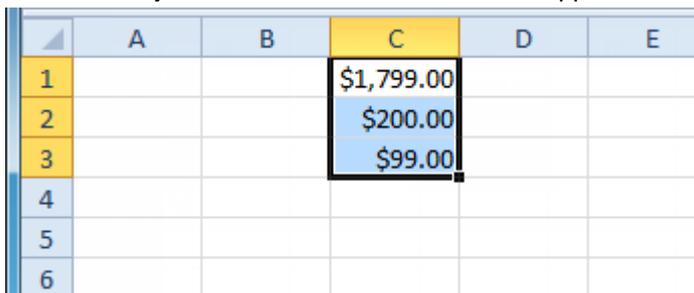


**To Drag and Drop Information:**

1. Select the cells that you wish to **move**.
2. Position your mouse on one of the **outside edges** of the selected cells. The mouse changes from a **white cross**  to a **black cross with 4 arrows** .



3. **Click and drag the cells** to the new location.
4. Release your mouse and the cells will be dropped there.



**To Use the Fill Handle to Fill Cells:**

1. Select the cell or cells containing the content you want to use. You can fill cell content either vertically or horizontally.
2. Position your mouse over the **fill handle** so that the **white cross**  becomes a **black cross** .

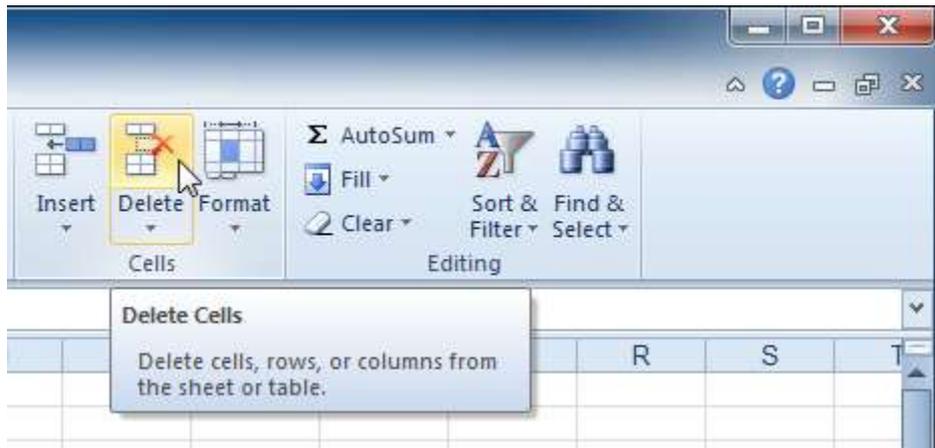
	A	B	C
1	Office Christmas Party		
2			
3	Employee	Attending	Not Attending
4			
5	Peraza, Brian	X	
6	Swensen, Liz		X
7	Harris, Jane		X
8	Lewty, Alice	X	
9	Olvera, Emily K.		
10	Wodal, Matthew		
11	McMillan, J.E.		
12	Dees, Robert		
13	Wimblet, Grace		
14	Salter, Joe Ann		

3. **Click and drag the fill handle** until all the cells you want to fill are **highlighted**.
4. Release the mouse and your cells will be filled.

	A	B	C
1	Office Christmas Party		
2			
3	Employee	Attending	Not Attending
4			
5	Peraza, Brian	X	
6	Swensen, Liz		X
7	Harris, Jane		X
8	Lewty, Alice	X	
9	Olvera, Emily K.	X	
10	Wodal, Matthew	X	
11	McMillan, J.E.	X	
12	Dees, Robert		
13	Wimblet, Grace		
14	Salter, Joe Ann		

**To Delete Cells:**

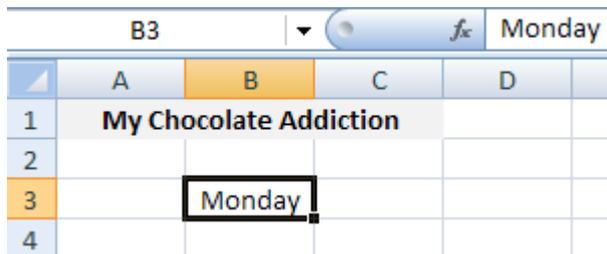
1. Select the cells that you want to delete.
2. Choose the **Delete** command from the ribbon.



There is an important difference between **deleting the content of a cell** and **deleting the cell itself**. If you delete the cell, by default the cells underneath it will shift up and replace the deleted cell.

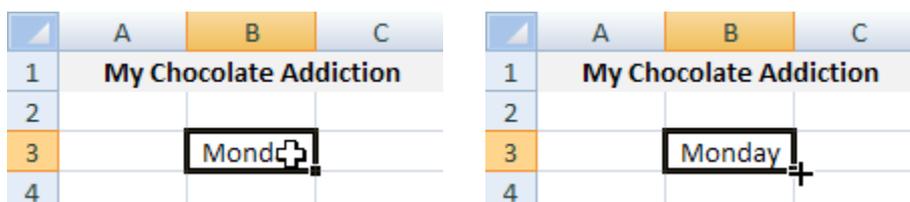
**Using automatic fill feature:**

Click inside cell B3 of your spreadsheet, and type Monday, as in the image below:



The days of the week are going to be entered on Row 3 of our spreadsheet, from cell B3 to cell H3. Fortunately, you don't have to type them all out. You can use something called AutoFill to complete a known sequence like days of the week. In other words, Excel will do it all for us.

- Position your mouse pointer to the bottom right of the B3 cell
- The mouse pointer will change to a black cross, as in the images below. The image on the left shows the normal white cross; the image on the right, the black cross, tells you AutoFill is available:



- When you can see the AutoFill cursor, hold down your left mouse button and drag to the right
- Drag your mouse all the way to cell H3, as in the following image:

	B3	fx Monday						
	A	B	C	D	E	F	G	H
1	My Chocolate Addiction							
2								
3		Monday						
4							Sunday	
5								

- When your cursor is in the H3 cell, let go of the left mouse button
- Excel will now complete the days of the week:

	A	B	C	D	E	F	G	H
1	My Chocolate Addiction							
2								
3		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
4								

AutoFill can be a handy tool to use, when you want to complete a known sequence like days of the week, months, and even formulas.

Entering data:

- Click inside cell A4 and enter the name of a chocolate bar. You can enter anything you like, but we've gone for Mars Bars. In cell A5 we chose Twix, and in cell A6 Bounty. In cell A7 we typed Other
- In cell A9 of your spreadsheet enter the words **Day Totals**. Leave cell A8 blank. Your spreadsheet should then look something like ours below:

	A	B	C	D	E	F	G	H
1	My Chocolate Addiction							
2								
3		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
4	Mars Bars							
5	Twix							
6	Bounty							
7	Other							
8								
9	Day Totals							

Entering numbers:

- Click inside cell B4, and enter the number 1. Press the enter key on your keyboard, and the active cell will jump down to cell B5
- In cell B5 type the number 7. Press the Enter key again to jump down to cell B6
- In cell B6 type 8

- In cell B7 type 1
- Your spreadsheet will then look like this one:

	A	B	C	D	E	F	G	H
1	<b>My Chocolate Addiction</b>							
2								
3		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
4	Mars Bars	1						
5	Twix	7						
6	Bounty	8						
7	Other	1						
8								
9	Day Totals							

To complete the numbers for the rest of the week, enter the following under each heading:

- Tuesday:** 2, 5, 3, 2
- Wednesday:** 1, 3, 2, 2
- Thursday:** 3, 2, 3, 2
- Friday:** 3, 4, 4, 2
- Saturday:** 2, 2, 1, 1
- Sunday:** 5, 4, 4, 1

When you are done, your spreadsheet will look like this:

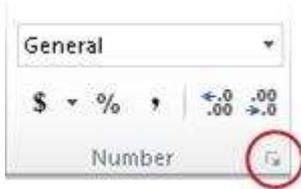
	A	B	C	D	E	F	G	H
1	<b>My Chocolate Addiction</b>							
2								
3		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
4	Mars Bars	1	2	1	3	3	2	5
5	Twix	7	5	3	2	4	2	4
6	Bounty	8	3	2	3	4	1	4
7	Other	1	2	2	2	2	1	1
8								
9	Day Totals							

## 2. Formatting dates and times:

You can format dates and times as you type. For example, if you type **2/2** in a cell, Excel automatically interprets this as a date and displays **2-Feb** in the cell. If this isn't what you want—for example, if you would rather show **February 2, 2009** or **2/2/09** in the cell—you can choose a different date format in the **Format Cells** dialog box, as explained in the following procedure. Similarly, if you type **9:30 a** or **9:30 p** in a cell, Excel will interpret this as a time and display **9:30 AM** or **9:30 PM**. Again, you can customize the way the time appears in the **Format Cells** dialog box.

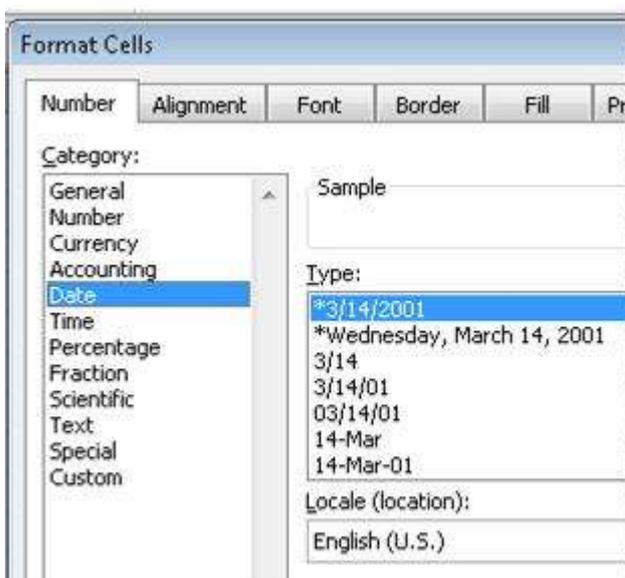
1. Select the cells that you want to format.

- On the **Home** tab, in the **Number** group, click the Dialog Box Launcher next to **Number**.



You can also press CTRL+1 to open the **Format Cells** dialog box.

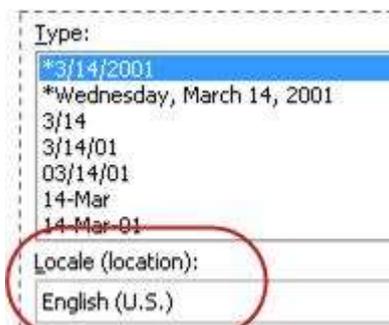
- In the **Category** list, click **Date** or **Time**.



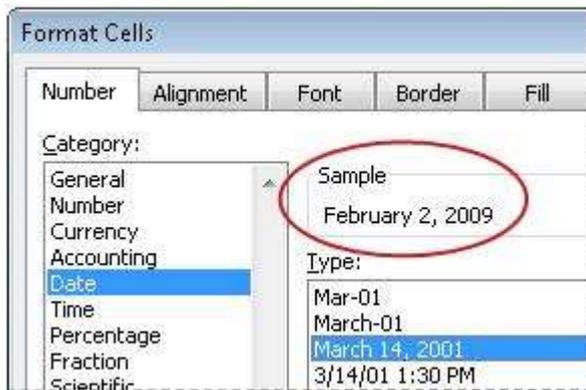
- In the **Type** list, click the date or time format that you want to use.

**NOTE** Date and time formats that begin with an asterisk (\*) respond to changes in regional date and time settings that are specified in Control Panel. Formats without an asterisk are not affected by Control Panel settings.

- To display dates and times in the format of other languages, click the language setting that you want in the **Locale (location)** box.



The number in the active cell of the selection on the worksheet appears in the **Sample** box so that you can preview the number formatting options that you selected.



The **Auto Fill Options** button is also displayed after you select the **AutoFill** option in the **Series** dialog box. To show the **Series** dialog box, use one of the following procedures, as appropriate for the version of Excel that you are running:

- In Microsoft Office Excel 2010 and Excel 2016, click the **Home** tab, and then click **Fill** in the **Editing** group.

### ***Find or replace text and numbers in a worksheet:***

Use the Find and Replace features in Excel to search for something in your workbook, such as a particular number or text string.

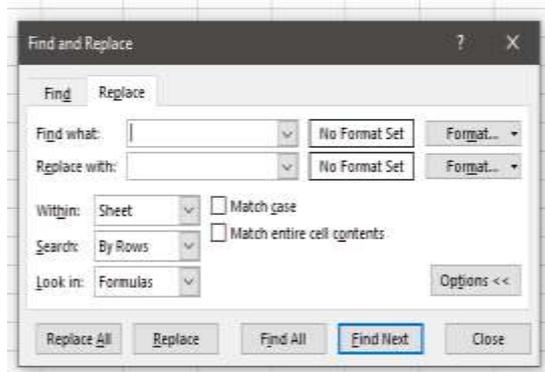
1. In a **worksheet**, click any cell.
2. On the **Home** tab, in the **Editing** group, click **Find & Select**.



3. Do one of the following:
  - To find text or numbers, click **Find**.
  - To find and replace text or numbers, click **Replace**.
4. In the **Find what** box, type the text or numbers that you want to search for, or click the arrow in the **Find what** box, and then click a recent search in the list.

You can use wildcard characters, such as an asterisk (\*) or a question mark (?), in your search criteria:

- Use the asterisk to find any string of characters. For example, **s\*d** finds "sad" and "started".
- Use the question mark to find any single character. For example, **s?t** finds "sat" and "set".



**TIP** You can find asterisks, question marks, and tilde characters (~) in worksheet data by preceding them with a tilde character in the **Find what** box. For example, to find data that contains "?", you would type ~? as your search criteria.

5. Click **Options** to further define your search, and then do any of the following:
  - To search for data in a worksheet or in an entire workbook, in the **Within** box, select **Sheet** or **Workbook**.
  - To search for data in rows or columns, in the **Search** box, click **By Rows** or **By Columns**.
  - To search for data with specific details, in the **Look in** box, click **Formulas**, **Values**, or **Comments**.

**Note** **Formulas**, **Values** and **Comments** are only available on the **Find** tab; whereas only **Formulas** are available on the **Replace** tab.

- To search for case-sensitive data, select the **Match case** check box.
  - To search for cells that contain just the characters that you typed in the **Find what** box, select the **Match entire cell contents** check box.
6. If you want to search for text or numbers that also have specific formatting, click **Format**, and then make your selections in the **Find Format** dialog box.

**TIP** If you want to find cells that just match a specific format, you can delete any criteria in the **Find what** box, and then select a specific cell format as an example. Click the arrow next to **Format**, click **Choose Format From Cell**, and then click the cell that has the formatting that you want to search for.

7. Do one of the following:
  - To find text or numbers, click **Find All** or **Find Next**.

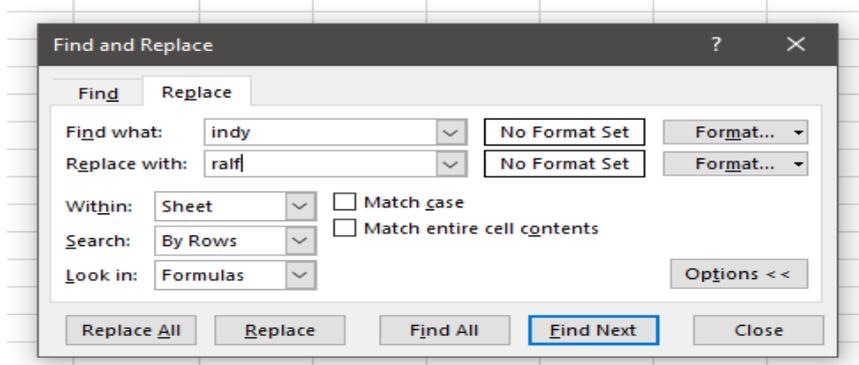
**TIP** When you click **Find All**, every occurrence of the criteria that you are searching for will be listed, and you can make a cell active by clicking a specific occurrence in the list. You can sort the results of a **Find All** search by clicking a column heading.

- To replace text or numbers, type the replacement characters in the **Replace with** box (or leave this box blank to replace the characters with nothing), and then click **Find** or **Find All**.

**NOTE** If the **Replace with** box is not available, click the **Replace** tab.

If needed, you can cancel a search in progress by pressing ESC.

8. To replace the highlighted occurrence or all occurrences of the found characters, click **Replace** or **Replace All**.

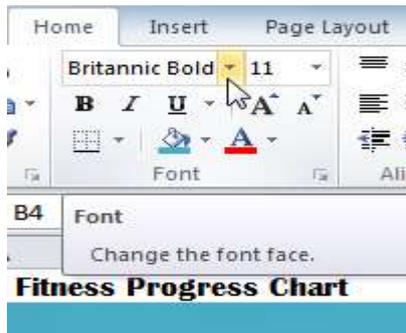


### Activity 4

Use the Budget or any Excel workbook you choose to complete this challenge.

- **Open** an existing spreadsheet
- **Select** a cell, cell range, entire column, entire row and entire spreadsheet
- **De-select** cells, cell range, entire column, entire row and entire spreadsheet
- **Copy** and paste cells
- Cut and paste cells
- **Move** cells
- **Delete** cells
- Use the **automatic fill feature** to automatically enter data in cells
- Use the **find and replace** feature to change data in your spreadsheet.
- Save your spreadsheet with a different file name

## Lesson 5 – Formatting a spreadsheet



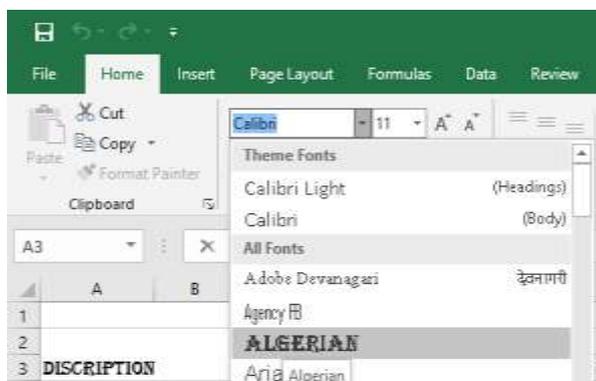
Once you have entered information into a spreadsheet, you will need to be able to **format** it. In this lesson, you will learn how to use the bold, italic, and underline commands; modify the font style, size, and colour; and apply borders and fill colours.

## Formatting Cells

### 1. Formatting font

#### To Change the Font Style:

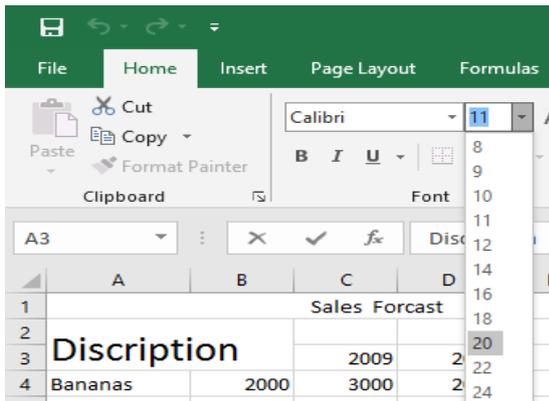
1. Select the cells you want to modify.
2. Click the **drop-down arrow** next to the **font** command on the Home tab. The font drop-down menu appears.
3. Move your mouse over the various fonts. A live preview of the font will appear in the worksheet.



4. Select the font you want to use.

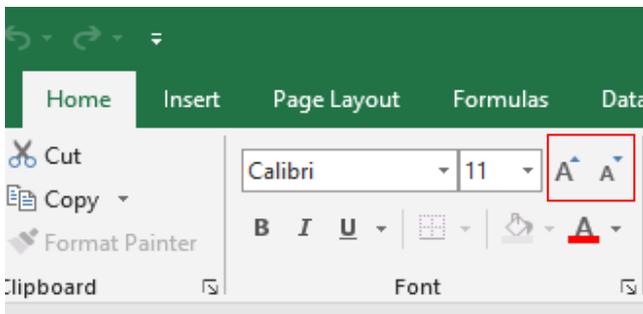
#### To Change the Font Size:

1. Select the cells you want to modify.
2. Click the **drop-down arrow** next to the **font size** command on the Home tab. The font size drop-down menu appears.
3. Move your mouse over the various font sizes. A live preview of the font size will appear in the worksheet.



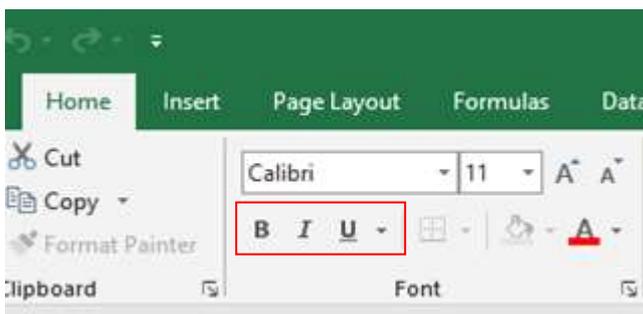
4. Select the font size you want to use.

You can also use the **Grow Font** and **Shrink Font** commands to change the size.



**To Use the Bold, Italic, and Underline Commands:**

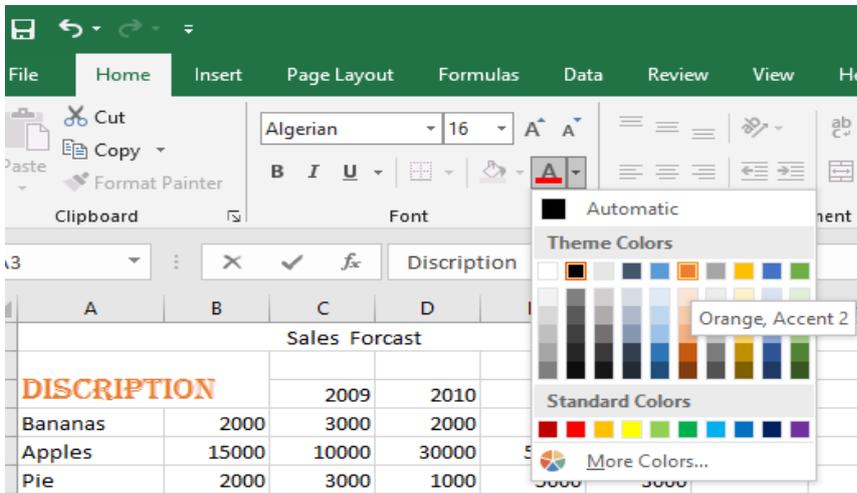
1. Select the cells you want to modify.
2. Click the Bold (**B**), Italic (*I*), or Underline (U) command on the Home tab.



**To Change the Font Colour:**

1. Select the cells you want to modify.
2. Click the **drop-down arrow** next to the **font colour** command on the Home tab. The **colour** menu appears.

3. Move your mouse over the various font colours. A live preview of the colour will appear in the worksheet.

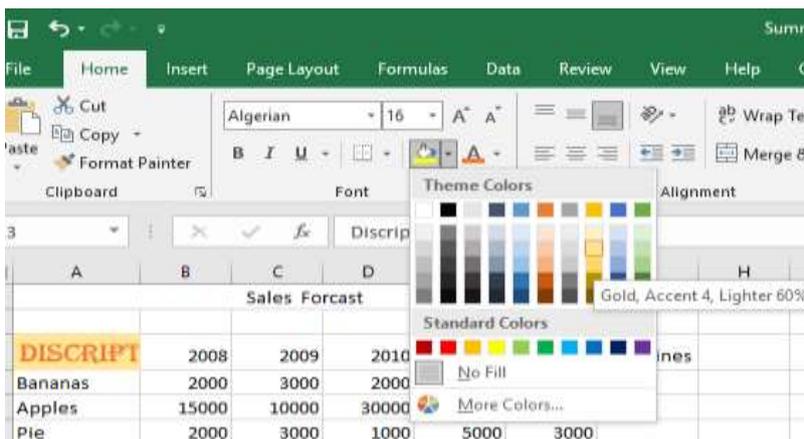


4. Select the font colour you want to use.

Your colour choices are not limited to the drop-down menu that appears. Select **More Colours** at the bottom of the menu to access additional colour options.

### To Add a Fill Colour:

1. Select the cells you want to modify.
2. Click the **drop-down arrow** next to the **fill colour** command on the Home tab. The **colour** menu appears.
3. Move your cursor over the various fill colours. A live preview of the colour will appear in the worksheet.

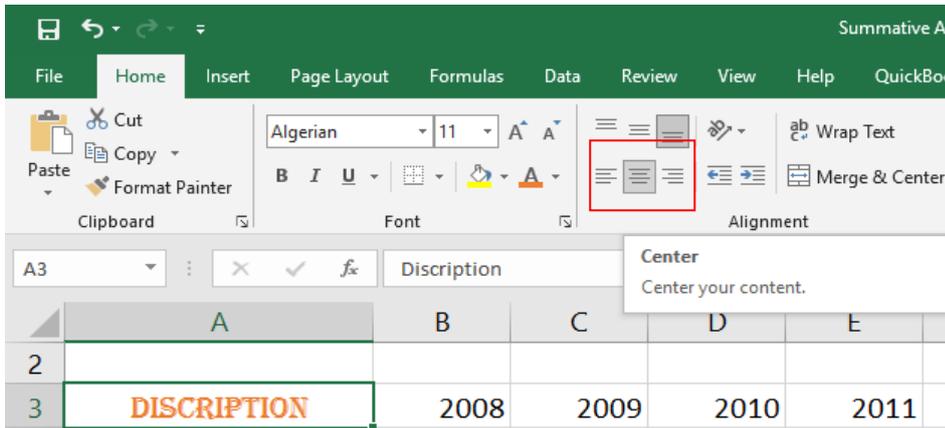


4. Select the fill colour you want to use.

## 2. Text alignment

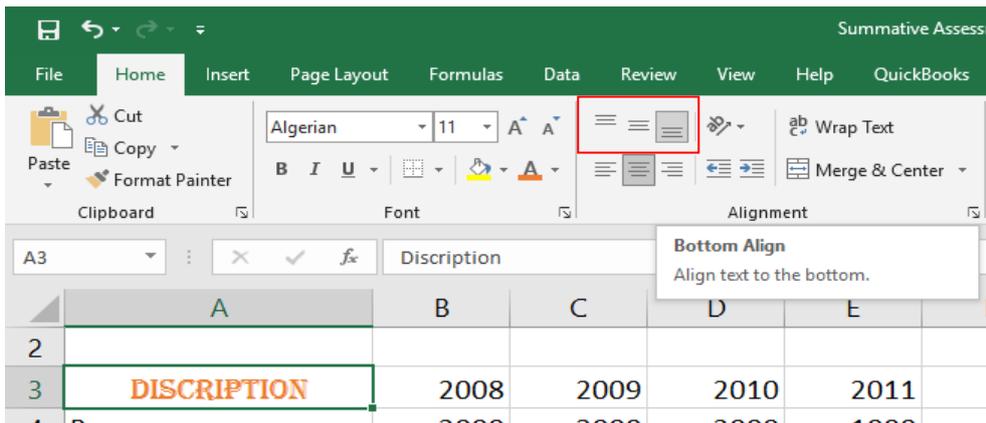
### To Change Horizontal Text Alignment:

1. Select the cells you want to modify.
2. Select one of the three horizontal **Alignment** commands on the Home tab.
  - **Align Text Left:** Aligns text to the left of the cell.
  - **Center:** Aligns text to the center of the cell.
  - **Align Text Right:** Aligns text to the right of the cell.



**To Change Vertical Text Alignment:**

1. Select the cells you want to modify.
2. Select one of the three vertical **Alignment** commands on the Home tab.
  - **Top Align:** Aligns text to the top of the cell.
  - **Middle Align:** Aligns text to the middle of the cell.
  - **Bottom Align:** Aligns text to the bottom of the cell.



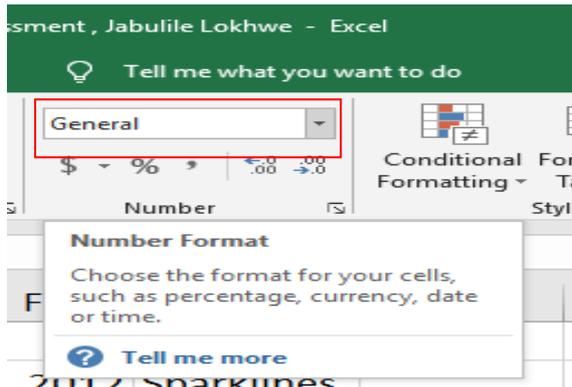
By default, numbers align to the bottom-right of cells and words or letters align to the bottom-left of cells.

**3. Formatting Numbers and Dates**

One of the most useful features of Excel is its ability to format numbers and dates in a variety of ways. For example, you might need to format numbers with decimal places, currency symbols (\$), percent symbols (%), etc.

### To Format Numbers and Dates:

1. Select the cells you want to modify.
2. Click the **drop-down arrow** next to the **Number Format** command on the Home tab.



3. Select the number format you want. For some number formats, you can then use the **Increase Decimal** and **Decrease Decimal** commands (below the Number Format command) to change the number of decimal places that are displayed.

**Percent** formats numbers with **decimal places** and the **percent sign**, for example, if you enter "0.75" into the cell, the cell will display the number as "75.00%".

By default, the numbers appear in the **General** category, which means there is no special formatting.

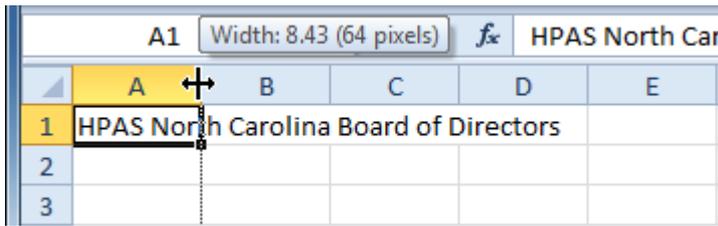
In the Number group, you have some other options. For example, you can change the U.S. dollar sign to another currency format, numbers to percents, add commas, and change the decimal location.

NOTE: For dates you have an option to choose short or long date format:

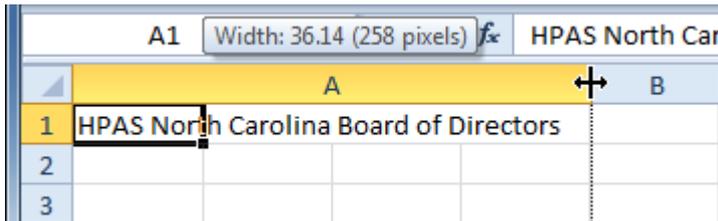
- **Short Date** formats numbers as **M/D/YYYY**; for example, August 8th, 2016 would be "8/8/2016".
- **Long Date** formats numbers as **Weekday, Month DD, YYYY**; for example, "Monday, August 01, 2016".

### To Modify Column Width:

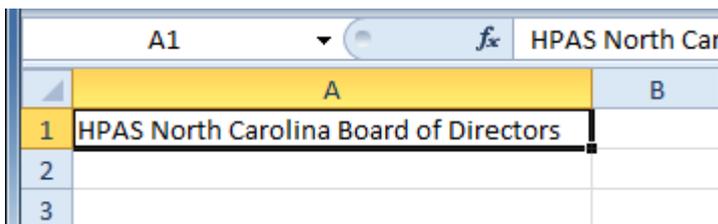
1. Position your mouse over the **column line** in the **column heading** so that the **white cross**  becomes a **double arrow** .



2. **Click and drag the column** to the right to increase the column width or to the left to decrease the column width.

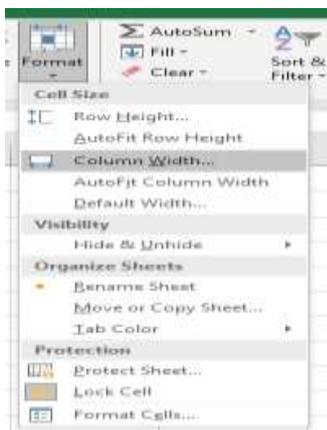


3. Release the mouse. The column width will be changed in your spreadsheet.

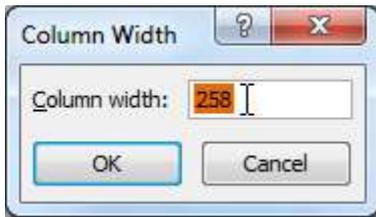


**To Set Column Width with a Specific Measurement:**

1. Select the columns you want to modify.
2. Click the **Format** command on the **Home** tab. The format drop-down menu appears.
3. Select **Column Width**.



4. The **Column Width** dialog box appears. Enter a specific measurement.

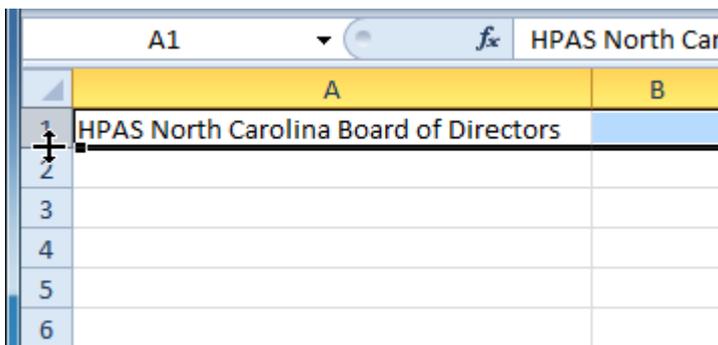


5. Click **OK**. The width of each selected column will be changed in your worksheet.

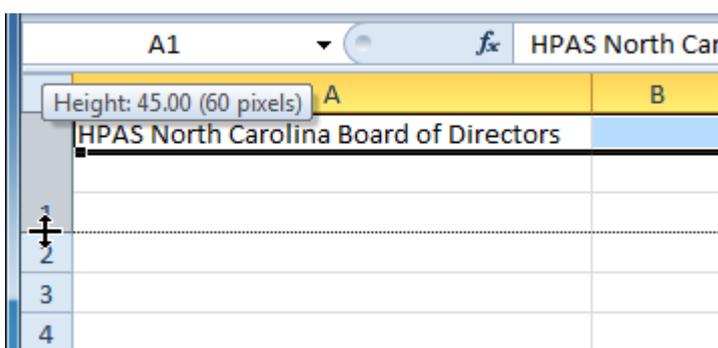
Select **AutoFit Column Width** from the format drop-down menu and Excel will automatically adjust each selected column so that all the text will fit.

### To Modify the Row Height:

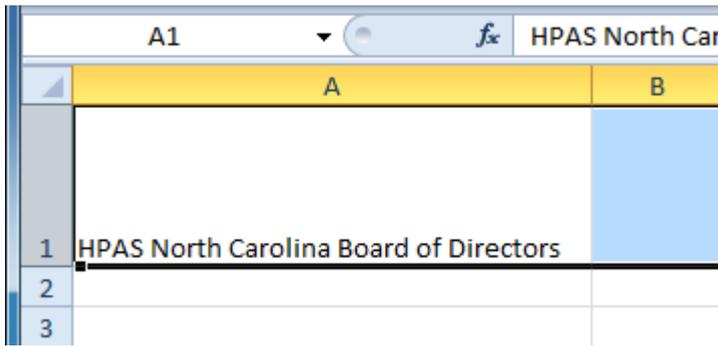
1. Position the **cursor** over the **row line** so that the **white cross**  becomes a **double arrow** .



2. **Click and drag the row** downward to increase the row height or upward decrease the row height.

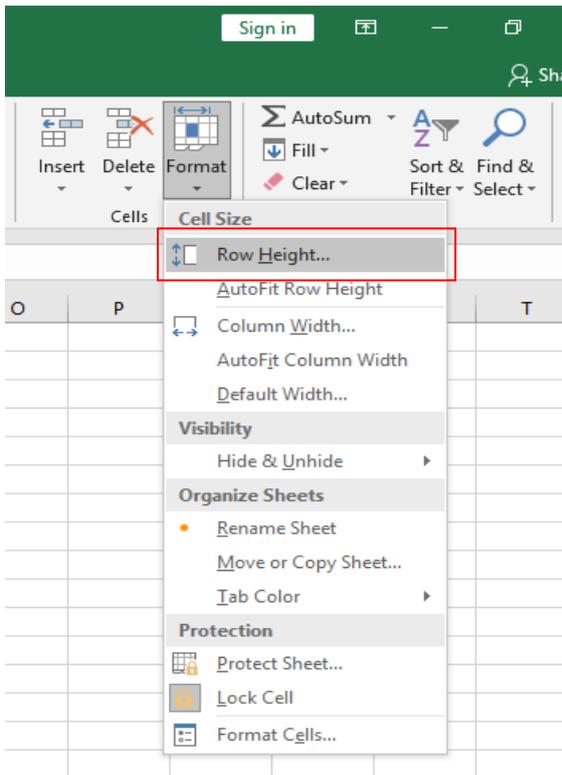


3. Release the mouse. The height of each selected row will be changed in your worksheet.

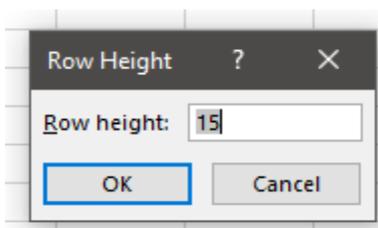


**To Set Row Height with a Specific Measurement:**

1. Select the rows you want to modify.
2. Click the **Format** command on the **Home** tab. The format drop-down menu appears.
3. Select **Row Height**.



4. The **Row Height** dialog box appears. Enter a specific measurement.



5. Click **OK**. The selected rows heights will be changed in your spreadsheet.

Select **AutoFit Row Height** from the format drop-down menu and Excel will automatically adjust each selected row so that all the text will fit.

### **Activity 5**

Use the **Budget** or any Excel workbook you choose to complete this challenge.

- Select a cell and **format** the **text** or **numbers** in it so that they appear **bolded**.
- Select **two or more cells** and format the text or numbers so that they appear in *italics*.
- Change **fill colour** of two or more cells.
- Change the font size of one sheet to 15
- Change the **font style** to Arial
- **Underline** the headings
- Add a **border** to a row.
- Change the **background** colour of a sheet
- **Centre** your headings
- **Justify** your numbers
- Set the **row height** to automatic
- Adjust your **column** width
- **Save** your spreadsheet with a different name

## **Lesson 6 - Checking spelling and grammar in a spreadsheet**

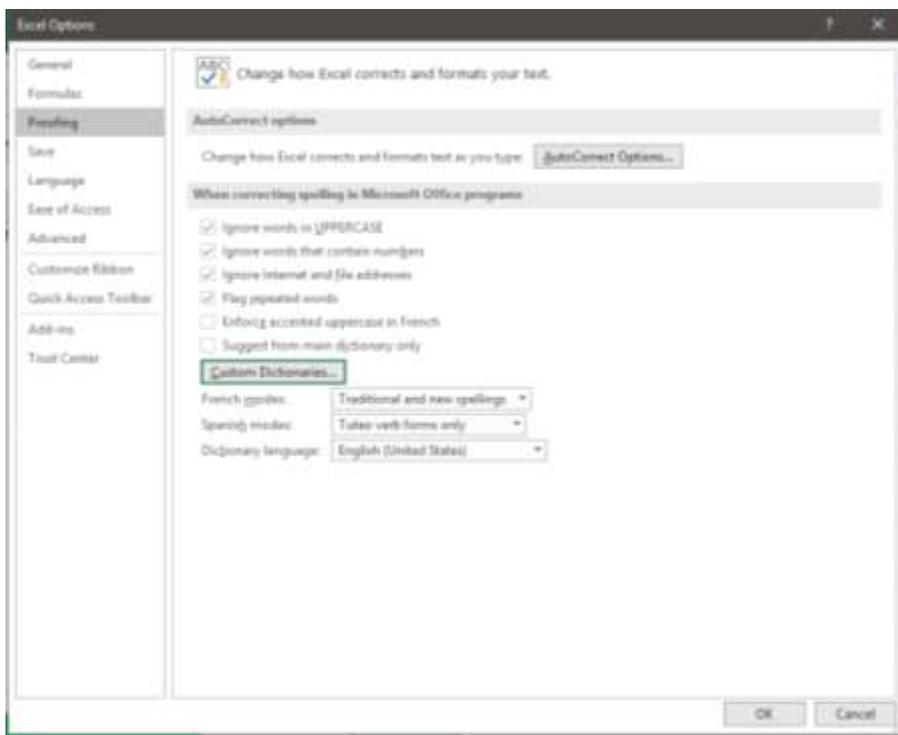
All Microsoft Office 2016 programs come with the ability to check the spelling and grammar of your file. The spelling and grammar checker, often called spell check, is located in different places on the ribbon, depending on your program. You can use the **Spelling and Grammar** tool to check your document for errors. Excel can also check your spelling and grammar automatically as you type. In this lesson you will learn to set up the dictionary to be used for spelling and word usage, check for spelling and grammar, correct spelling mistakes and add words to custom dictionary.

## Checking spelling and grammar

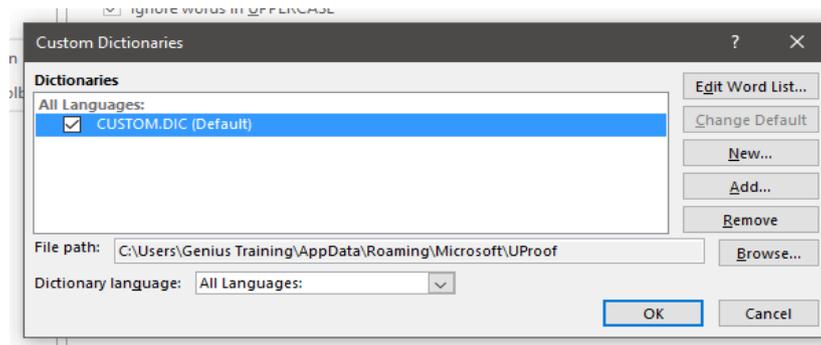
### **To set up dictionary:**

In Excel 2016, you can create custom dictionaries to use when spell checking your worksheets. You use the Add to Dictionary button in the Spelling dialog box to add unknown words to a custom dictionary. By default, Excel adds these words to a custom dictionary file named CUSTOM.DIC, but you can create a new custom dictionary to use as the default, if you prefer.

1. **Click the File tab and then click Options.** The Excel Options dialog box appears.
2. **Click the Proofing tab and then click the Custom Dictionaries button.** Excel opens the Custom Dictionaries dialog box where you can create a new custom dictionary.



3. **Click the New button.** Excel opens the Create Custom Dictionary dialog box.
4. **Type the name for your new custom dictionary and then click the Save button.** The name of the custom dictionary you created appears underneath CUSTOM.DIC (Default) in the Dictionary List box.



5. **(Optional) Click the dictionary's name in the Dictionary List box and then click the Change Default button.** This makes the new custom dictionary the default dictionary into which new words are saved.
6. **Click the Edit Word List button.** Excel opens a dialog box with an alphabetical list of the words in that custom dictionary. If you just created the dictionary, it will be empty.
7. **Type a word you want to add to your custom dictionary in the Word(s) text box and click Add.** Continue to do this until you are satisfied with your custom dictionary.
8. **Click OK until you have returned to your worksheet.** Now you are ready to get back to work.

If you make the custom dictionary your default, Excel continues to add all unknown words to your new custom dictionary until you change the default back to the original custom dictionary (or to another custom one that you have created). To change back and start adding unknown words to the original custom dictionary, select the CUSTOM.DIC file in the Custom Dictionaries dialog box and click the Change Default button.

### ***AutoCorrect spelling, and insert text and symbols:***

You can use the AutoCorrect feature to correct typos and misspelled words, as well as to insert symbols and other pieces of text. AutoCorrect is set up by default with a list of typical misspellings and symbols, but you can modify the list that AutoCorrect uses.

#### **NOTES**

- AutoCorrect can also correct a misspelled word if the word is similar to a word in the main spelling checker dictionary.
- Text included in hyperlinks is not automatically corrected.

### **Add a text entry to the AutoCorrect list:**

1. Click the **File** tab.
2. Click **Options**.
3. Click **Proofing**.  
Click **AutoCorrect Options**.
4. On the **AutoCorrect** tab, make sure the **Replace text as you type** check box is selected.

5. In the **Replace** box, type a word or phrase that you often mistype or misspell- for example, type **usualy**.
6. In the **With** box, type the correct spelling of the word-for example, type **usually**.
7. Click **Add**.
8. Click **OK**.

### ***Change the contents of a text entry in the AutoCorrect list:***

1. Click the **File** tab.
2. Click **Options**.
3. Click **Proofing**.  
Click **AutoCorrect Options**.
4. On the **AutoCorrect** tab, make sure the **Replace text as you type** check box is selected.
5. Click the entry in the list. It will appear in the **Replace** box.
6. Type the new entry in the **With** box.
7. Click **Replace**.

### ***Rename a text entry in the AutoCorrect list:***

1. Click the **File** tab.
2. Click **Options**.
3. Click **Proofing**.  
Click **AutoCorrect Options**.
4. On the **AutoCorrect** tab, make sure the **Replace text as you type** check box is selected.
5. Click the entry in the list. It will appear in the **Replace** box.
6. Click **Delete**.
7. Type a new name in the **Replace** box.
8. Click **Add**.

### ***Spelling and grammar check and corrections:***

1. On the **Review** tab, in the **Proofing** group, click **Spelling**.

**TIP** You can access this command quickly by adding it to the Quick Access Toolbar by right-clicking the **Spelling** button, and then clicking **Add to Quick Access Toolbar** on the shortcut menu.

2. If the program finds spelling mistakes, a dialog box or task pane appears with the first misspelled word found by the spelling checker.
3. After you resolve each misspelled word, the program flags the next misspelled word so that you can decide what you want to do.

Excel suggests replacements for the unknown word shown in the Not in Dictionary text box with a likely replacement in the Suggestions list box. If that replacement is incorrect, you can scroll through the Suggestions list and click the correct replacement. You have six options for any words that Excel doesn't recognize:

- **Ignore Once** or **Ignore All**: When Excel's spell check comes across a word its dictionary finds suspicious but you know is viable, click the Ignore Once button. If you don't want the spell checker to query you about this word again, click Ignore All.

- **Add to Dictionary:** Click this button to add the unknown word -such as your name -to a custom dictionary so that Excel won't flag it again.
- **Change:** Click this button to replace the word listed in the Not in Dictionary text box with the selected word in the Suggestions list box.
- **Change All:** Click this button to change all occurrences of this misspelled word in the worksheet to the selected word in the Suggestions list box. Use this with caution.
- **AutoCorrect:** Click this button to have Excel automatically correct this spelling error with the selected suggestion in the Suggestions list box (by adding the misspelling and suggestion to the AutoCorrect dialog box).

Click **OK** when the spell check is complete

### ***Add words to your spell check dictionary:***

When you use the spelling checker, it compares the words in your document with those in the main dictionary, the one that ships with Microsoft Office. The main dictionary contains most common words, but it might not include proper names, technical terms, or acronyms that you use. In addition, some words might be capitalized differently in the main dictionary than what you want in your document. Adding such words or capitalization to a custom dictionary prevents the spelling checker from flagging them as mistakes.

**IMPORTANT** Any custom dictionary setting that you change in one Microsoft Office program affects all the other programs.

### ***Use custom dictionaries***

The first step to manage your custom dictionaries is to select the custom dictionaries by using the **Custom Dictionaries** dialog box.

1. Click the **File** tab.
2. Click **Options**.
3. Click **Proofing**.
4. Make sure the **Suggest from main dictionary only** check box is cleared.
5. Click **Custom Dictionaries**.
6. In the **Custom Dictionaries** dialog box, make sure the check box next to each custom dictionary that you want to use is selected.

### ***Add, delete, or edit words in a custom dictionary***

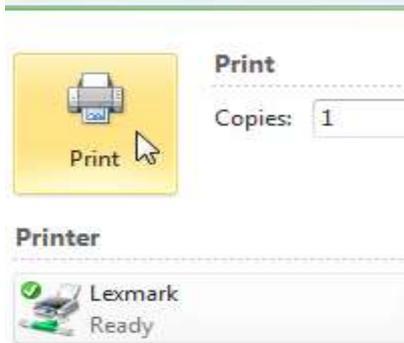
1. Click the **File** tab.
2. Click **Options**.
3. Click **Proofing**.
4. Make sure the **Suggest from main dictionary only** check box is cleared.
5. Click **Custom Dictionaries**.
6. Select the dictionary that you want to edit. Make sure you don't clear the check box.
7. Click **Edit Word List**.
8. To add a word, type it in the **Word(s)** box, and then click **Add**.

## Activity 6

Use the Budget or any Excel workbook you choose to complete this challenge.

- Set up the dictionary to be used for spelling and word usage
- Use the autocorrect feature to automatically correct text while entering.
- **Check** text for **spelling** and **grammar** and make **corrections**
- Add words are to the custom dictionary.
- Save your spreadsheet

## Lesson 7 - Printing Workbooks



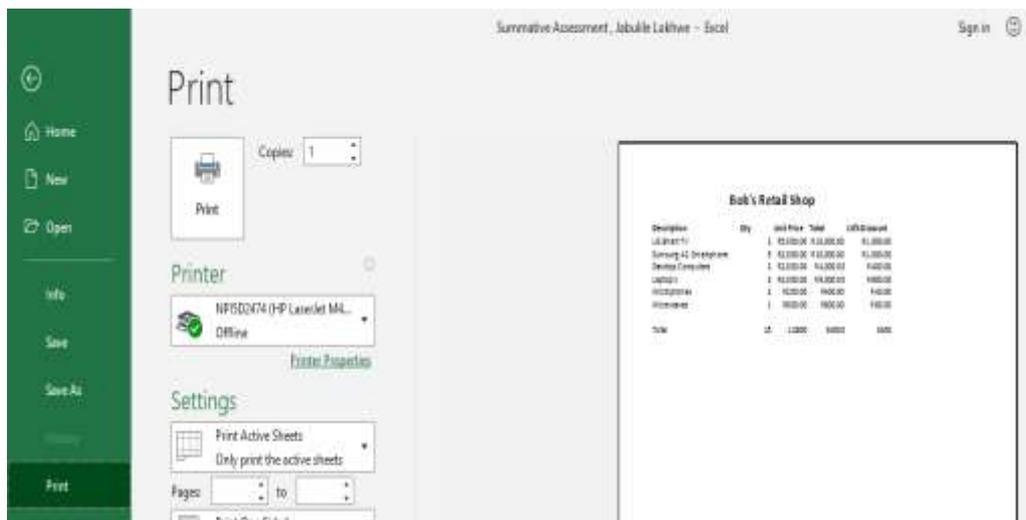
In Excel, there are many things you can do to prepare your workbook for printing. Many of these tasks make it easier to **format the spreadsheet** for the printed page.

In this lesson you will learn how to view the spreadsheet in print preview, modify margins, change the page orientation, use the scale to fit feature, use the Print Titles command, insert breaks, and more.

### Preparing to Print and Printing

#### ***To View the Spreadsheet in Print Preview:***

1. Click the **File** tab. This takes you to **Backstage view**.
2. Select **Print**. The **Print pane** appears, with the **print settings** on the left and the **Print Preview** on the right.



Click the **Close Print Preview** button  to return to the Normal View.

To make previewing your spreadsheet easier, add the **Print Preview** command to the Quick Access toolbar.

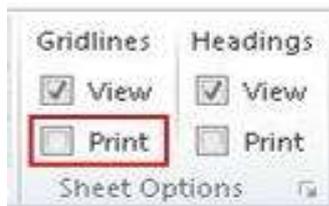
### Print gridlines in a worksheet:

Gridlines are the faint lines that appear around cells. They are used to distinguish cells on the worksheet.

	A	B	C
1	Sales Person	Number Sold	Unit Price
2	Barnhill	5	2200
3	Smith	4	1800
4	Ingle	6	2300
5	Lysaker	8	1700
6	Jordan	3	2000

In Excel, gridlines don't appear on a printed worksheet or workbook by default. In order to print gridlines;

1. Select the worksheet or worksheets that you want to print.
2. On the **Page Layout** tab, in the **Sheet Options** group, select the **Print** check box under **Gridlines**.



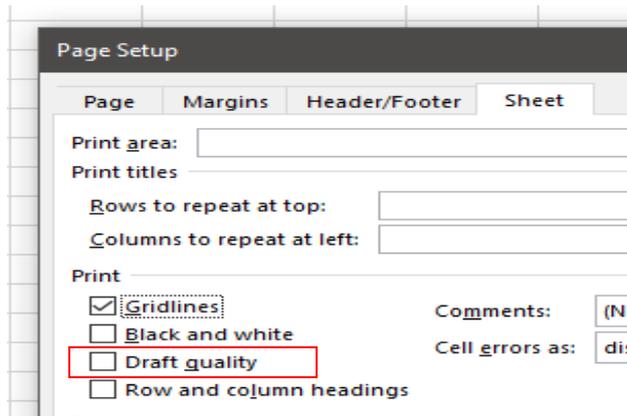
**NOTE** If the check boxes in the **Sheet Options** group appear dimmed, it may be because you have a chart, image, or other object selected on the worksheet. If you cancel that selection, you will be able to use the check boxes.

3. Click the **File** tab, and then click **Print**.
4. In the **Print** dialog box, click **OK**.

Next steps

After you select the **Print** check box, you may want to take the following steps:

- **Preview the gridlines** To see how the gridlines will print, press CTRL+F2 to open the **File** tab, which displays a preview of what your printed worksheet will look like. Gridlines are designed to print only around actual data in a worksheet. If you want to print gridlines around empty cells as well, you must set the print area to include those cells. Alternatively, you can apply borders around the cells instead.
- **Troubleshoot printing issues with gridlines** If gridlines don't show up when you print your worksheet, or if you can't see them in the Print Preview window, make sure that the **Draft quality** check box is not selected. The **Draft quality** check box appears on **Sheet** tab in the **Page Setup** dialog box. To quickly access the **Page Setup** dialog box, press ALT +P, S, P.



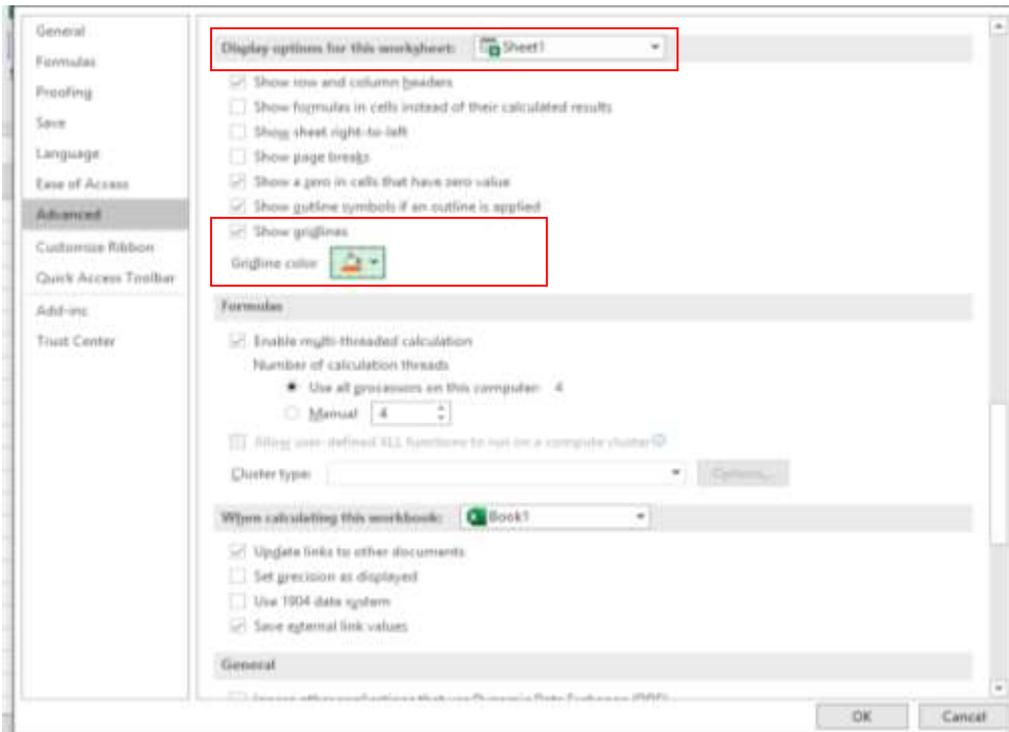
If gridlines still don't print successfully, there may be an issue with your printer driver. In this case, you can try downloading the latest driver from the printer manufacturer's Web site. As a last resort, you can apply borders around the cells that you want to print.

Remember to deselect both Print check boxes to return them to their default settings, as necessary.

### Colour and Remove Gridlines

- For changing gridlines colour, go to **File** menu and click **Options**.
- Excel Options dialog will appear, select **Advanced** from left pane, and from the right pane scroll-down to find **Display Options for this worksheet:** group,
- Choose desired Gridline colour.
- In case you want to make Gridlines disappear, disable **Show gridlines** option.





You will see the colour of Gridlines will change, as shown in the screen shot below.

	A	B	C	D	E	F	G
1	ID	Name	Course				
2	1	Jack	Software Engineering				
3	2	Billy	Requirement Engineering				
4	3	Mcfaden	Multivariate Calculus				
5	4	Steven Shwimme	Software Architecture				
6	5	Ruby Jason	Relational DBMS				
7	6	Mark Dyne	PHP development				
8	7	Philip Namdaf	Microsoft Dot Net Platform				
9	8	Erik Bawn	HTML & Scripting				
10	9	Ricky Ben	Data communication				
11	10	Miecky	Software Architecture				
12							
13							
14							
15							
16							
17							
18							
19							
20							

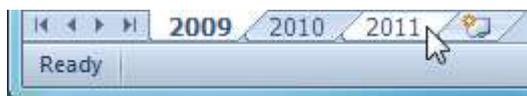
Here you can see the Excel worksheet without gridlines.

	A	B	C	D	E	F	G
1	<b>ID</b>	<b>Name</b>	<b>Course</b>				
2	1	Jack	Software Engineering				
3	2	Billy	Requirement Engineering				
4	3	Mcfaden	Multivariate Calculus				
5	4	Steven Shwimme	Software Architecture				
6	5	Ruby jason	Relational DBMS				
7	6	Mark Dyne	PHP development				
8	7	Philip namdaf	Microsoft Dot Net Platform				
9	8	Erik Bawn	HTML & Scripting				
10	9	Ricky ben	Data communication				
11	10	Miecky	Software Architecture				
12							
13							
14							
15							
16							
17							
18							

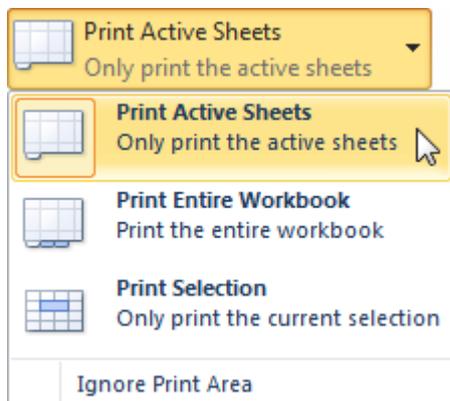
### To Print Active Sheets:

If you have multiple worksheets in your workbook, you will need to decide if you want to print the whole workbook or specific worksheets. Excel gives you the option to **Print Active Sheets**. A worksheet is considered active if it is **selected**.

1. Select the worksheets you want to print. To print multiple worksheets, click on the first worksheet, hold down the **Ctrl key**, then click on the other worksheets you want to select.



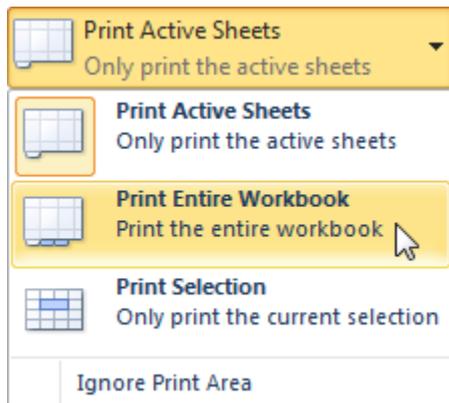
2. Click the **File** tab.
3. Select **Print** to access the **Print pane**.
4. Select **Print Active Sheets** from the **print range** drop-down menu.



5. Click the **Print** button.

**To Print the Entire Workbook:**

1. Click the **File** tab.
2. Select **Print** to access the **Print pane**.
3. Select **Print Entire Workbook** from the **print range** drop-down menu.



4. Click the **Print** button.

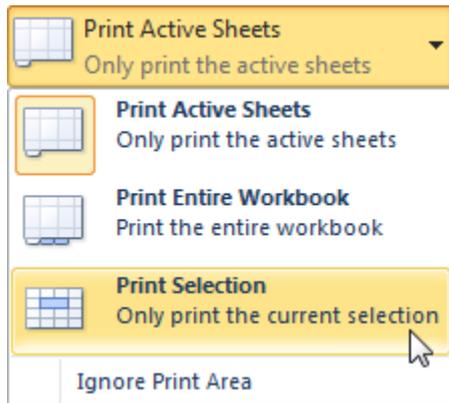
**To Print a Selection, or Set the Print Area:**

Printing a **selection** (sometimes called setting the **print area**) lets you choose which cells to print, as opposed to the entire worksheet.

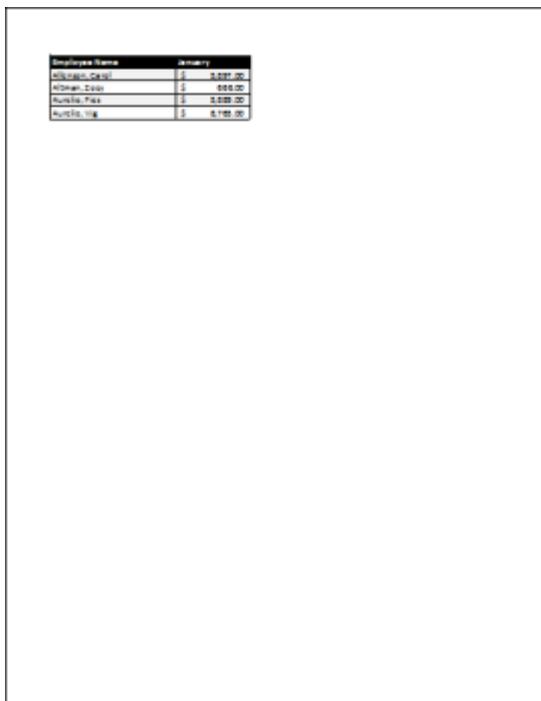
1. Select the cells that you want to print.

	A	B	C
1	<b>Employee Name</b>	<b>January</b>	<b>February</b>
2	Allenson, Carol	\$ 5,897.00	\$ 2,356.00
3	Altman, Zoey	\$ 666.00	\$ 6,210.00
4	Aurelio, Fies	\$ 5,889.00	\$ 9,385.00
5	Aurelio, Vig	\$ 8,765.00	\$ 9,258.00
6	Bergman, Jeffery	\$ 1,928.00	\$ 6,595.00
7	Bittiman, William	\$ 4,108.00	\$ 7,172.00
8	Carlson, David	\$ 6,302.00	\$ 358.00
9	Carlton, Potter	\$ 3,647.00	\$ 2,858.00

2. Click the **File** tab.
3. Select **Print** to access the **Print pane**.
4. Select **Print Selection** from the **print range** drop-down menu.



5. You can see what your selection will look like on the page in **Print Preview**.



6. Click the **Print** button.

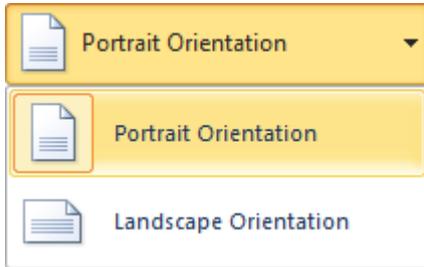
You don't have to wait until you are ready to print to **set the print area**. You can also set it from the **Page Layout** tab in advance. This will place a dotted line around your selection, so you can see which cells are going to print while you work. To do this, just **select** the cells you want to print, go to the **Page Layout** tab, and choose **Print Area**.

### ***To Change Page Orientation:***

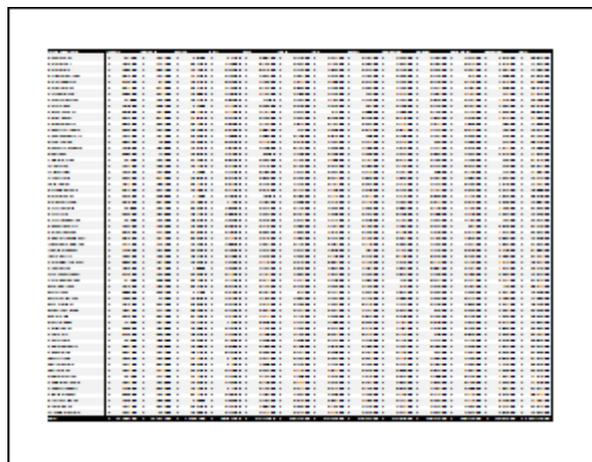
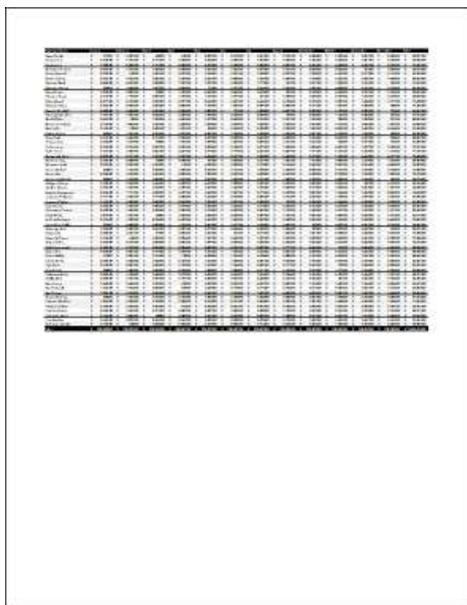
Change the page orientation to **Portrait** to orient the page vertically or **Landscape** to orient the page horizontally. Portrait is useful for worksheets needing to fit **more rows** on one page, and Landscape is useful for worksheets needing to fit **more columns** on one page.

1. Click the **File** tab.
2. Select **Print** to access the **Print pane**.

3. Select either **Portrait Orientation** or **Landscape Orientation** from the **orientation** drop-down menu.

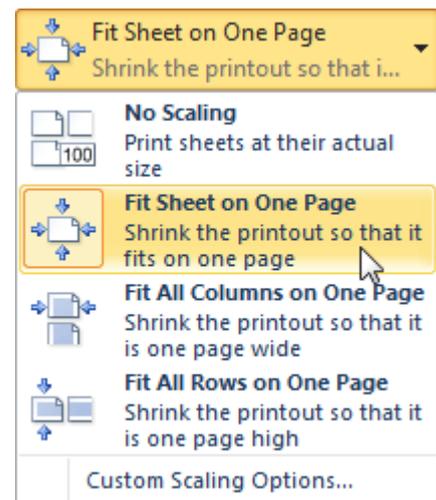


4. Your page orientation is changed.



### To Fit a Worksheet on One Page:

1. Click the **File** tab.
2. Select **Print** to access the **Print pane**.
3. Select **Fit Sheet on One Page** from the **scaling** drop-down menu.
4. Your worksheet is reduced in size until it fits on one page. Remember that if it is scaled too small it might be difficult to read.

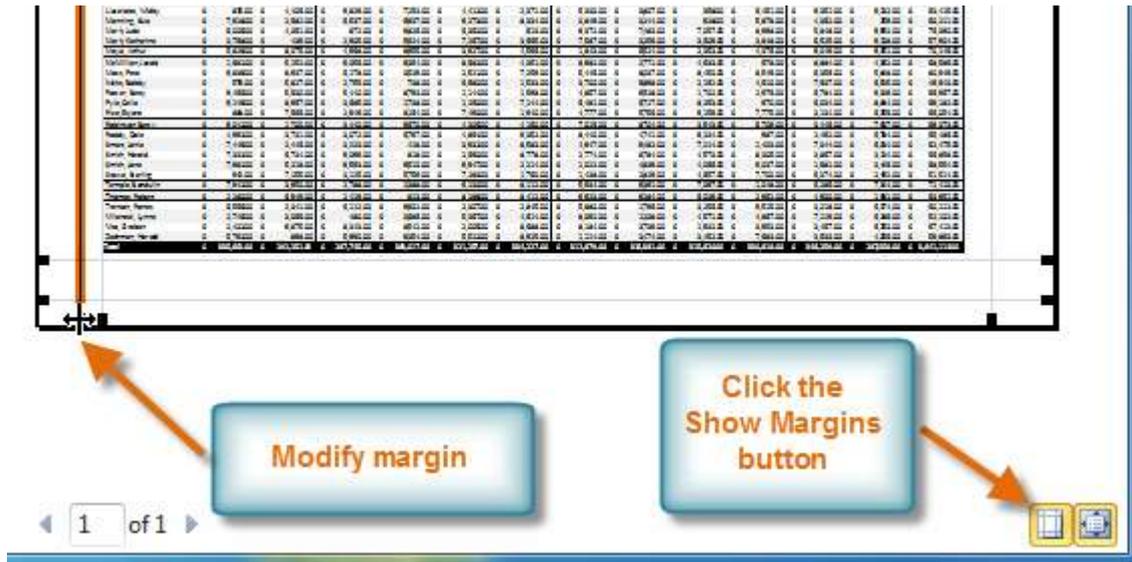


### To Modify Margins While in Print Preview:

The margins of your worksheet may need to be adjusted to make data fit more comfortably on the printed page. You can adjust the margins in **Print Preview**.

1. Click the **File** tab.

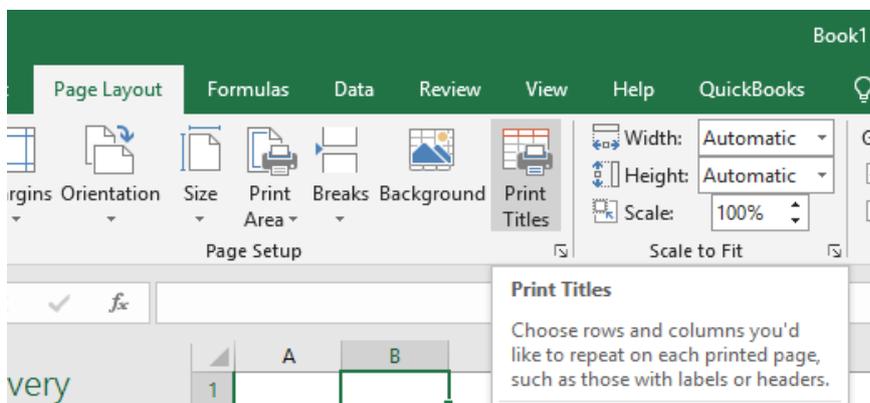
2. Select **Print** to access the **Print pane**.
3. Click on the **Show Margins** button. Your margins will appear.
4. Hover your mouse over one of the **margin markers** ■ until the **double arrow** ⇄ appears.
5. **Click and drag** the margin to your desired location.
6. Release the mouse. The margin is modified.



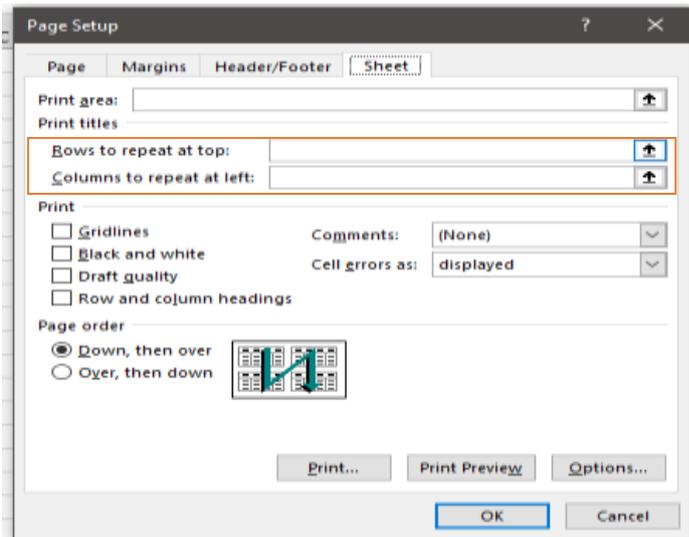
**To Use Print Titles:**

Imagine how difficult it would be to read a worksheet if the column and row headings only appeared on the first page. The **Print Titles** command allows you to select specific rows and columns to appear on each page.

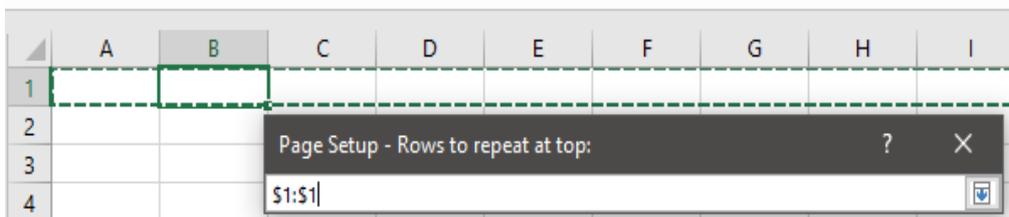
1. Click the **Page Layout** tab.
2. Select the **Print Titles** command.



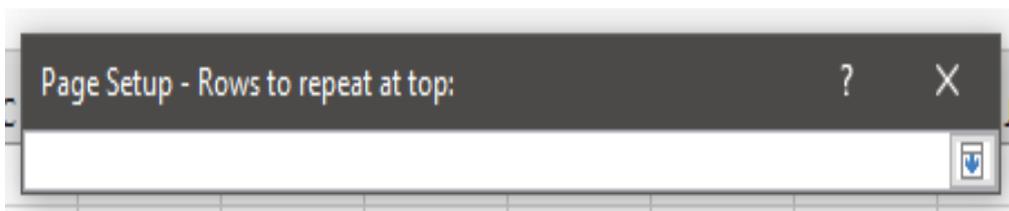
3. The **Page Setup** dialog box appears. Click the icon at the end of the **Rows to repeat at top** field.



4. Your mouse becomes the small **selection arrow**➡. Click on the rows you want to appear on each printed page. The **Rows to repeat at top** dialog box will record your selection.



5. Click the icon at the end of the **Rows to repeat at top** field.



6. Repeat for **Columns to repeat at left**, if necessary.
7. Click **OK**. You can go to **Print Preview** to see how each page will look when printed.

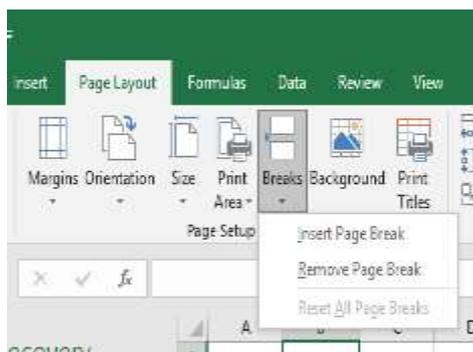
**To Insert a Break:**

1. Click the **Page Layout** tab.
2. Determine the placement of the break by clicking on the **row below**, **cell below**, or **column to the right** of where you want the break to appear. For example, select column C and a break will appear after column B.

	A	B	C
1	<b>Employee Name</b>	<b>January</b>	<b>February</b>
2	Allenson, Carol	\$ 5,897.00	\$ 2,356.00
3	Altman, Zoey	\$ 666.00	\$ 6,210.00
4	Aurelio, Fies	\$ 5,889.00	\$ 9,385.00
5	Au	\$ 8,765.00	\$ 9,258.00
6	Be	\$ 1,928.00	\$ 6,595.00
7	Bi	\$ 4,108.00	\$ 7,172.00
8	Ca	\$ 6,302.00	\$ 358.00
9	Carlton, Potter	\$ 3,647.00	\$ 2,858.00
10	Chantay, Marjan	\$ 7,916.00	\$ 2,611.00
11	Collin, Bevell	\$ 8,985.00	\$ 539.00
12	Collman, Harry	\$ 5,019.00	\$ 4,573.00

Break will appear here

3. Select the **Insert Page Break** command from the **Breaks** drop-down menu.



4. The break is inserted. You can go to **Print Preview** to confirm it appears in the correct place on the page.

**To Use Scale to Fit:**

- Select the **Page Layout** tab.
- Locate the **Scale to Fit** group.
- Enter a specific **height** and **width**, or use the percentage field to decrease the spreadsheet by a specific percent.

Scale to Fit is a useful feature that can help you format spreadsheets to fit on a page. Be careful with how small you scale the information -- it can become difficult to read!

**To Change the Paper Size:**

- Select the **Page Layout** tab.
- Click the **Size** command.
- Select a size option from the list.

## Activity 7

Use the Budget or any Excel workbook you choose to complete this challenge.

- **Open** an existing Excel 2016 workbook.
- Try printing two **active worksheets**.
- Try printing only a **selection** of cells.
- Change the page orientation to **Landscape**.
- Try **fitting** a large worksheet on one page.
- Try modifying the **margins** of a worksheet in Print Preview.
- Use the **Print Tiles** command to print a specific row or column on each printed page. Use Print Preview to verify how this will appear.
- Create a **page break** so that only columns A and B appear on one page.
- Print the **gridlines**
- Explore the other commands discussed in this lesson.