Excel 2010

This free Excel 2010 tutorial teaches how to create formulas and charts, use functions, format cells, and do more with your spreadsheets.

A-To adds commands to the Quick Access toolbar:

Click the **drop-down arrow** to the right of the **Quick Access toolbar**. Select the **command** you want to add from the drop-down menu. To choose from more orders, select **More Commands**.

B- Creating and opening workbooks:

Excel files are called workbooks. Each workbook holds one or more worksheets (also known as spreadsheets). To create a new blank workbook:

1-Click the **File tab**. This takes you to a **Backstage view**.

2-Select **New**.

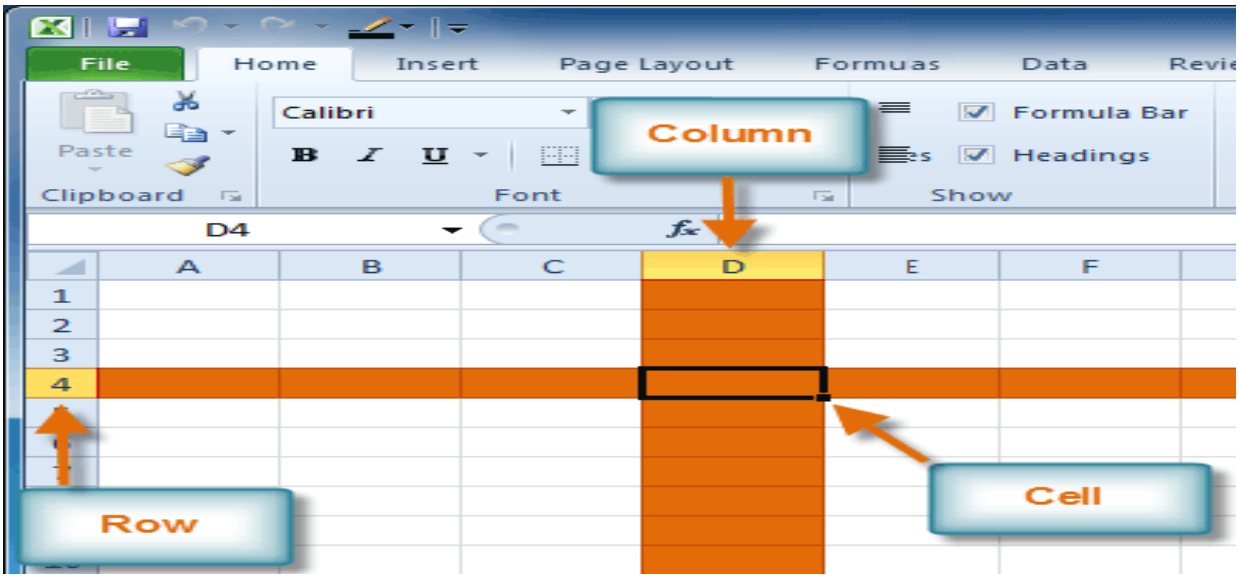
3-Select **Blank workbook** under Available Templates. It will be highlighted by default.

4-Click **Create**. A new blank workbook appears in the **Excel window**.

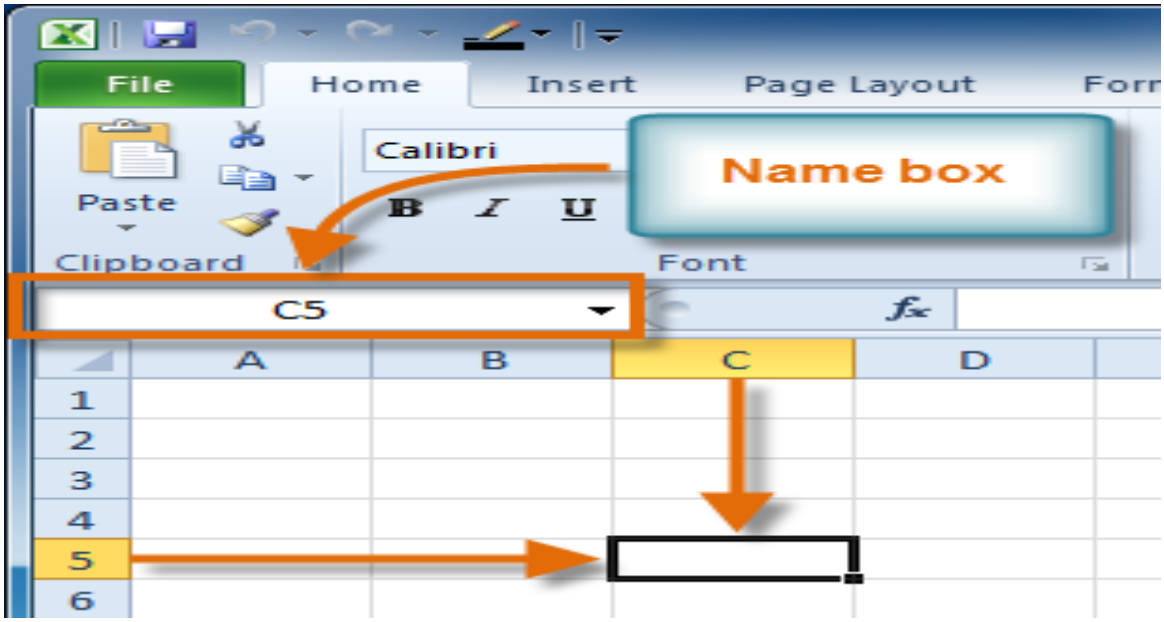
C- **Cells** are the basic building blocks of **a worksheet**. They can contain different content, such as **text, formatting attributes, formulas, and functions**. To work with cells, you'll need to know how to select them, insert content, and delete cells and cell content.

D- 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.



E-Cell content

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

- **Text**
  Cells can contain letters, numbers, and dates.
- **Formatting attributes**
  Cells can contain formatting attributes that change how letters, numbers, and

dates are displayed. For example, dates can be formatted as MM/DD/YYYY or M/D/YYYY.

- **Comments**
  Cells can contain comments from multiple reviewers.

F- To delete content within cells:

1-Select the **cells** containing the content you want to delete.

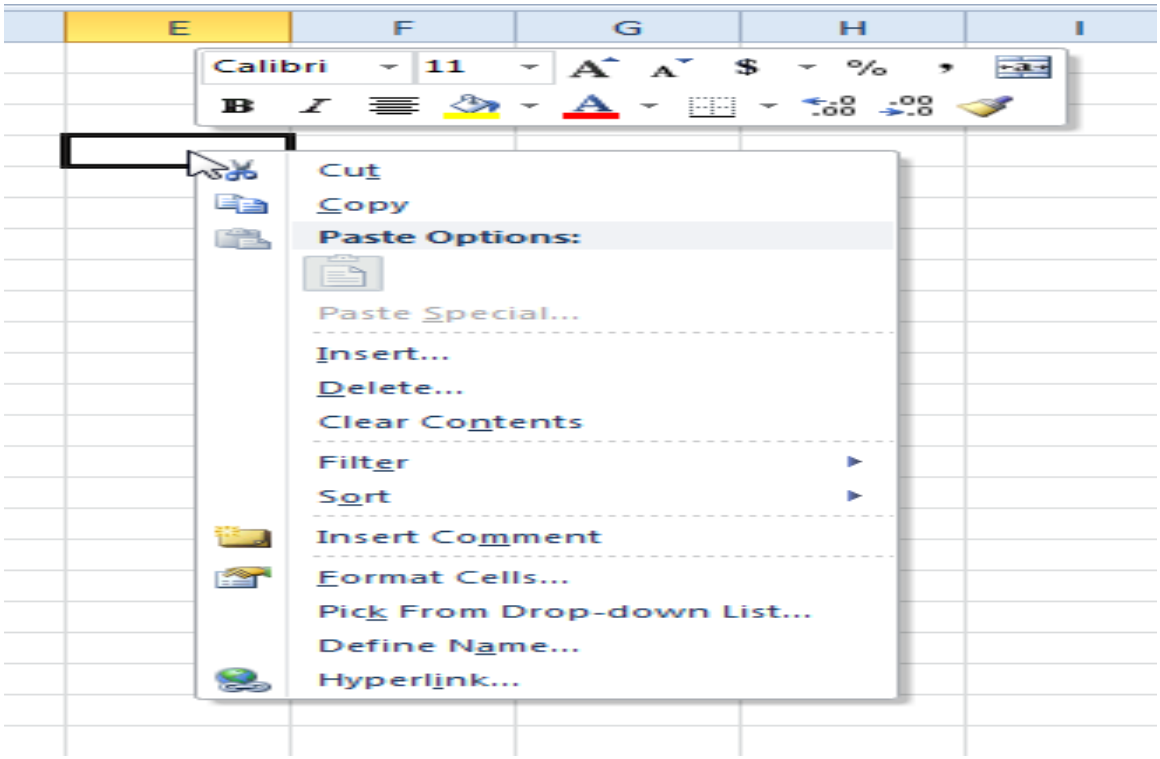
2-Click the **Clear command on the Ribbon**. A dialogue box will appear.

3-Select **Clear Contents**, Clearing cell contents

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

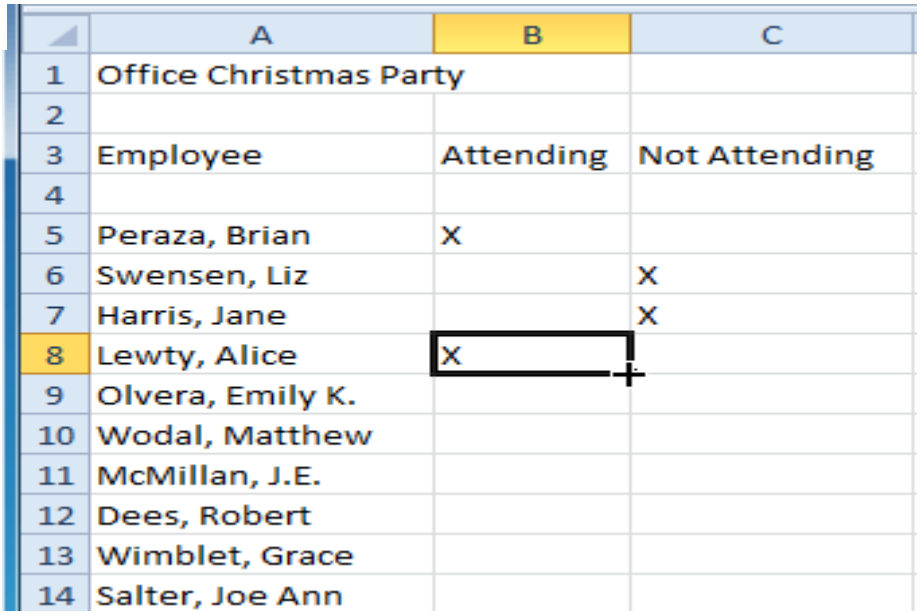
G- access formatting commands by right-clicking:

1. Select the cells you want to format.
2. **Right-click** the selected cells. A **list box** will appear to access many commands on the Ribbon easily.



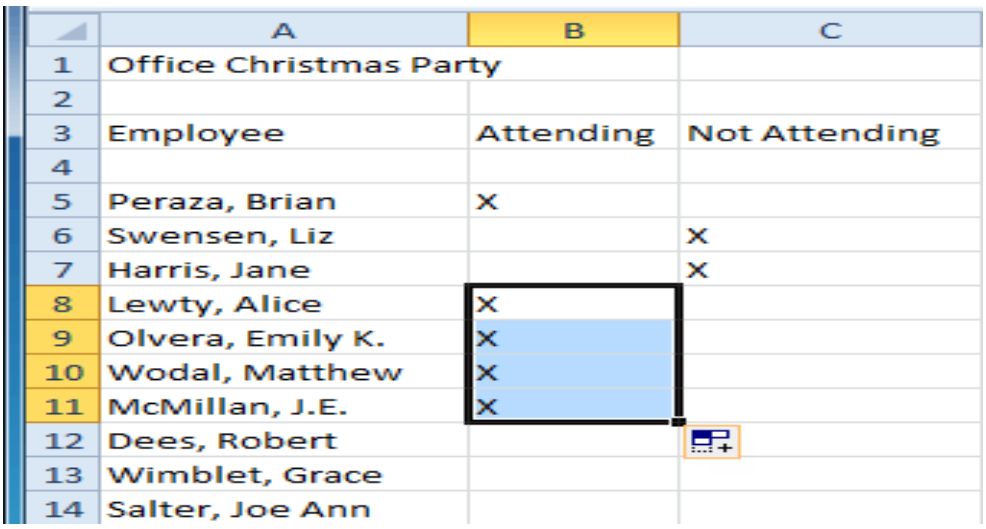
H-To uses the **fill handle to fill cells:**

1. Select **the 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 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		
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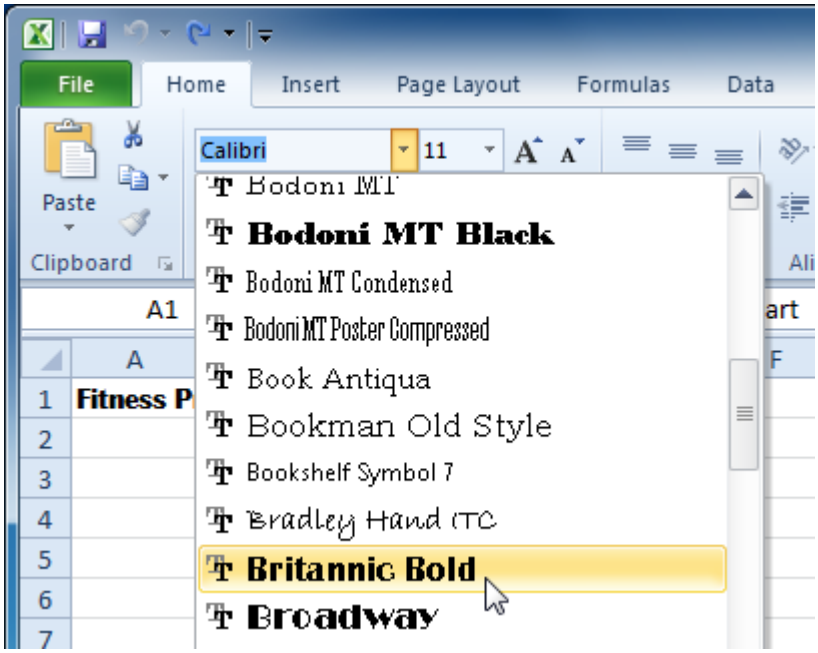
4			
5	Peraza, Brian	X	
6	Swensen, Liz		X
7	Harris, Jane		X
8	Lewty, Alice	X	
9	Olvera, Emily K.	X	
10	Wodal, Matthew	X	
11	McMillan, J.E.	X	
12	Dees, Robert		
13	Wimblet, Grace		
14	Salter, Joe Ann		

I-To changes the font:

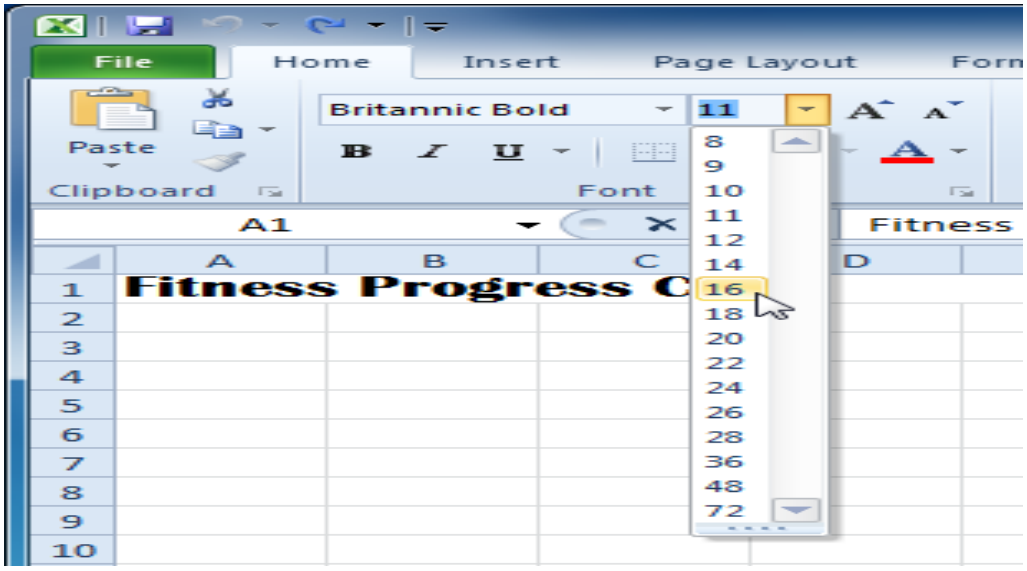
1. Select the **cells you want** to modify.
2. Click the **drop-down arrow** next to the **Font command** on the **Home tab**. The font drop-down menu appears.
3. **Move** your mouse over the **various fonts**. A live preview of the font will appear in the worksheet.



4. Select the font you want to use.

J-To changes 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.

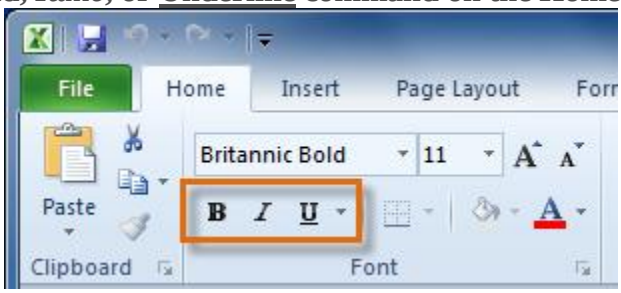


4. Select the **font size** you want to use.

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

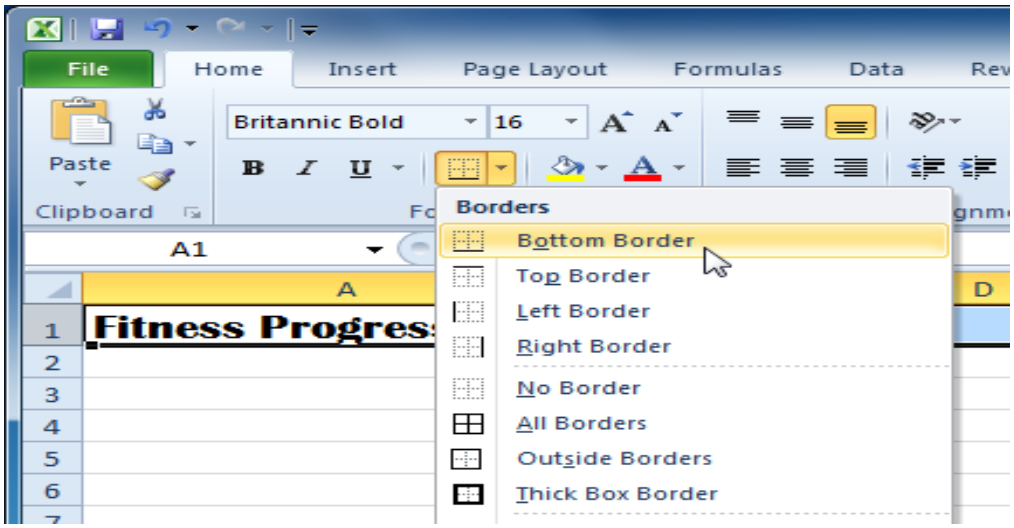
K-To uses the bold, italic, and underline commands:

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



L-To adds a border:

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

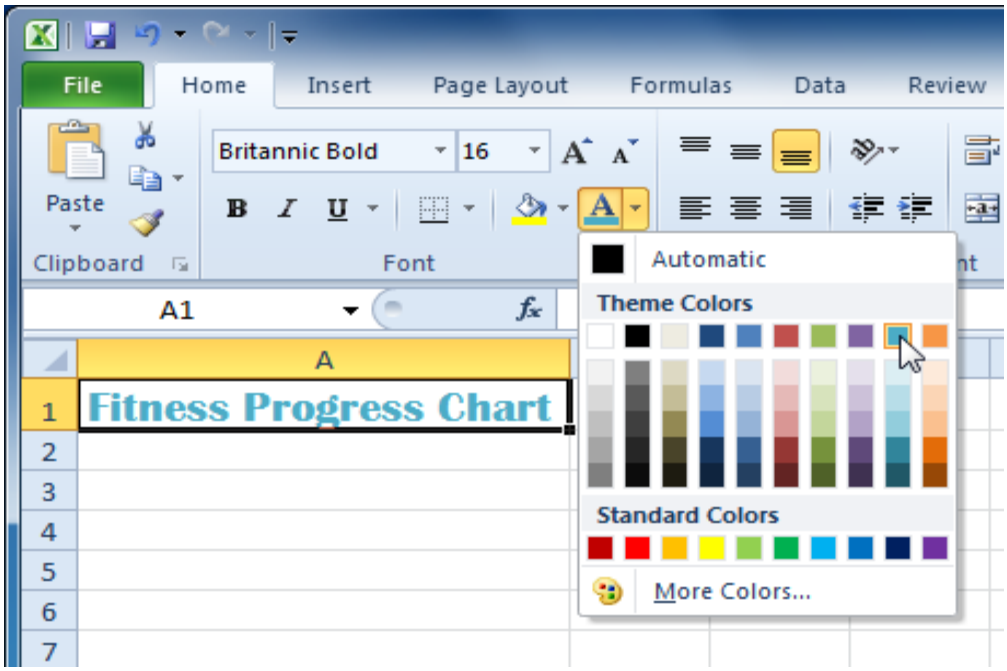


3. Select the **border style** you want to use.

You can **draw borders** and change the **line style** and frames with the **Draw Borders** tools at the bottom of the Borders drop-down menu.

M-To change 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 on the worksheet.

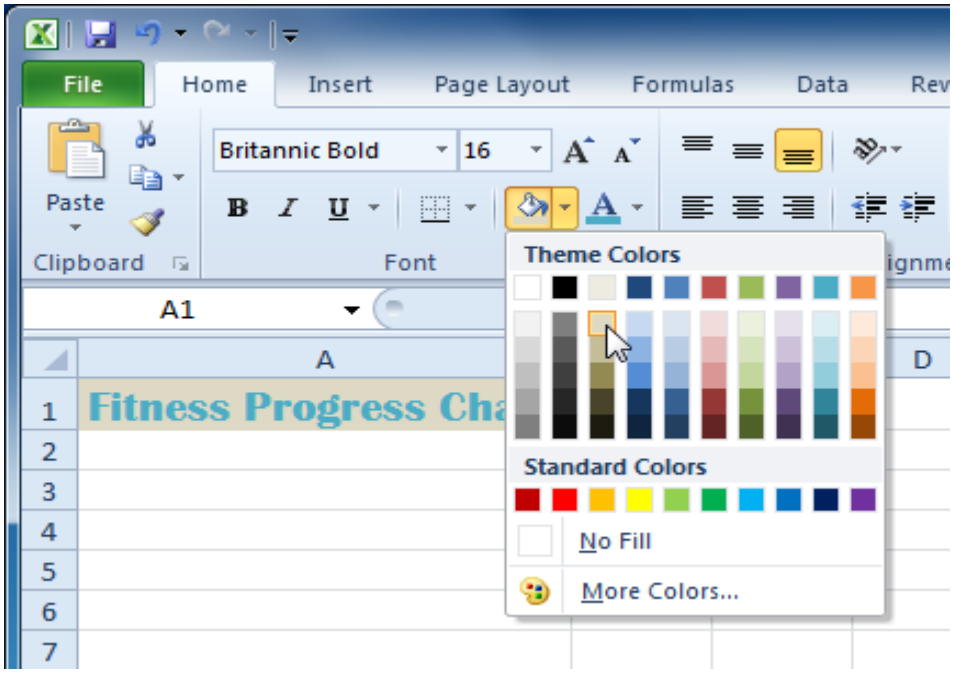


4. Select the **font colour** you want to use.

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

N-To adds 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 on the worksheet.



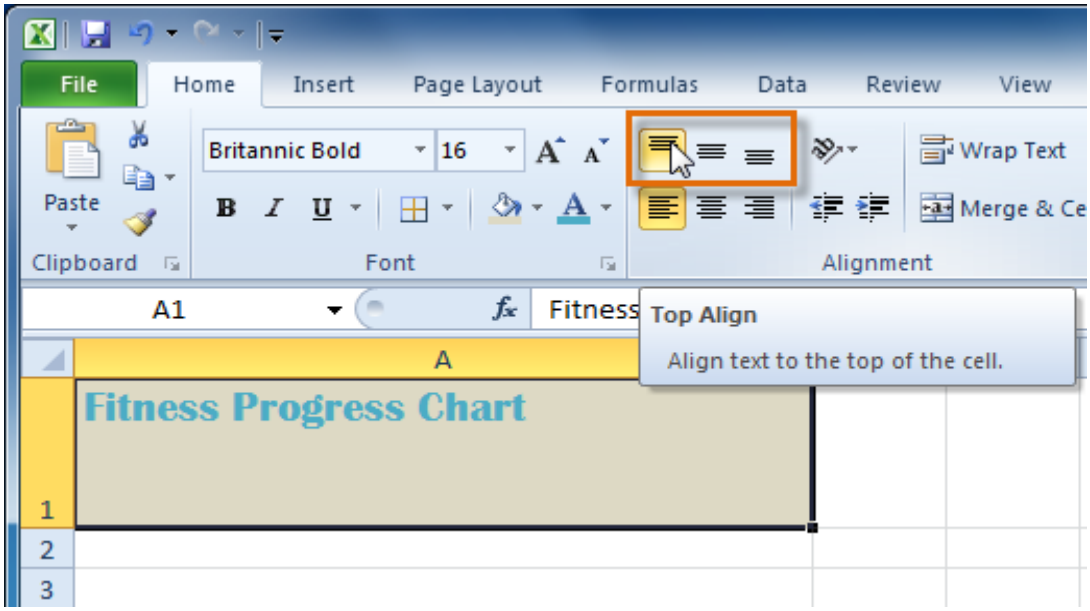
4. Select the **fill colour** you want to use.

O-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 centre of the cell
   - **Align Text Right:** Aligns text to the right of the cell

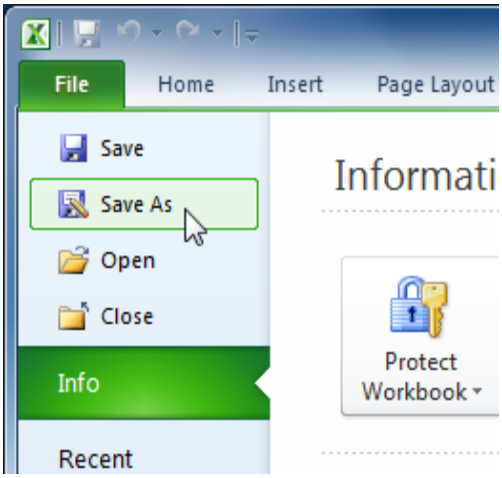
P-To change vertical text alignment:

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

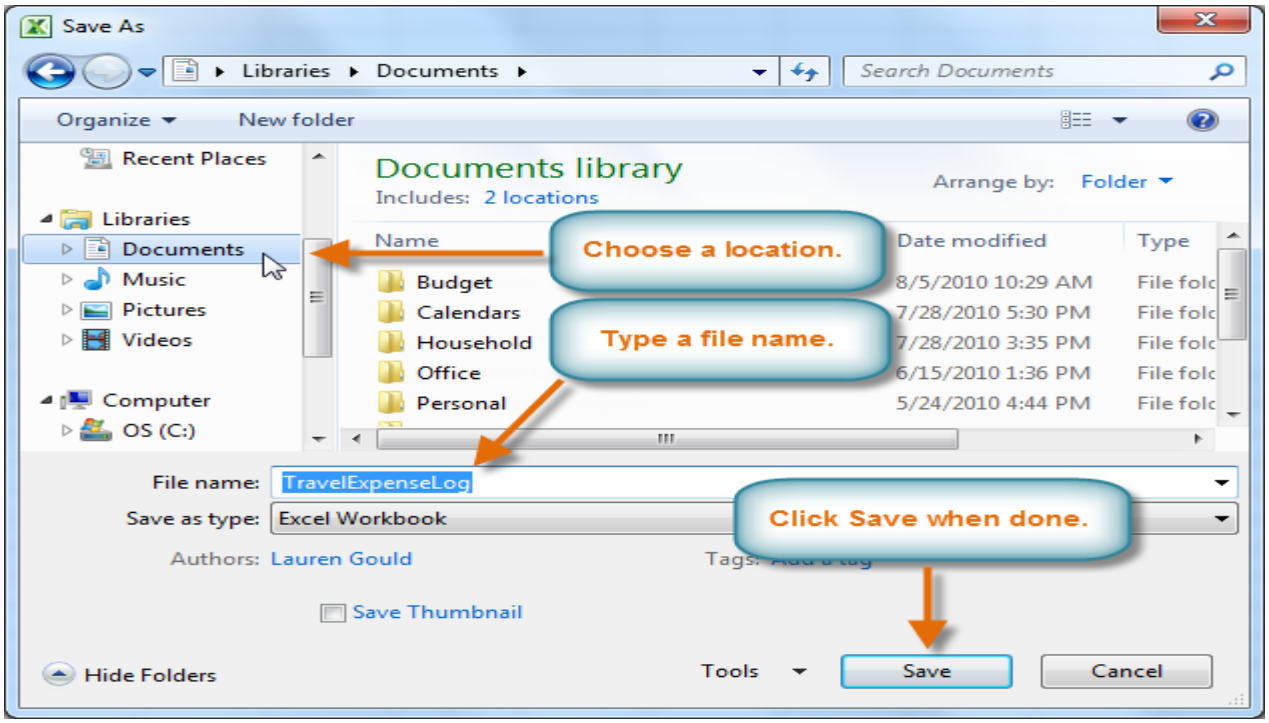


Q-To uses the Save As command:

Save As allows you to choose a name and location for your workbook. Use it if you are saving a workbook for the first time or if you want to save a different version of a workbook while keeping the original.



1. Click the **File** tab.
2. Select **Save As**.
3. The **Save As** dialogue box will appear. Select the **location where you want to save** the workbook.
4. Enter a name for the workbook, then click **Save**.



R-To uses the Save command:

1. Click the **Save** command on the **Quick Access toolbar**.

2. The workbook will be saved in its current location with the same file name.

If you save for **the first time** and select **Save**, the **Save As** dialogue box will appear.

S- A **formula** is **an equation** that performs a calculation. Excel can execute formulas like calculators that add, subtract, multiply, and divide.

T-Creating simple formulas

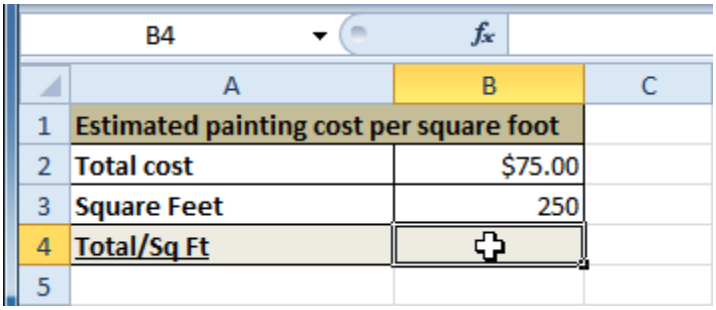
Excel uses standard operators for equations, such as a **plus sign** for addition (+), **minus sign** for subtraction (-), an **asterisk** for multiplication (*), a **forward slash** for division (/), and **caret** (^) for exponents.

When writing Excel formulas, the critical thing to remember **is that all procedures must begin with an equal sign** (=). This is **because the cell contains—or is equal to—the recipe and its value.**

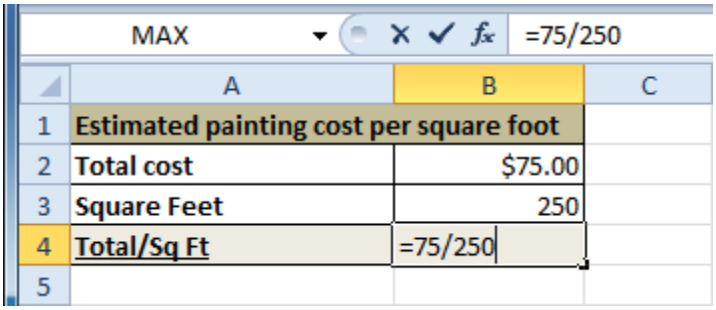
Addition	+	=5+5
Subtraction	-	=5-5
Multiplication	*	=5*5
Division	/	=5/5
Exponents	^	=5^5

Y-To creates a simple formula in Excel:

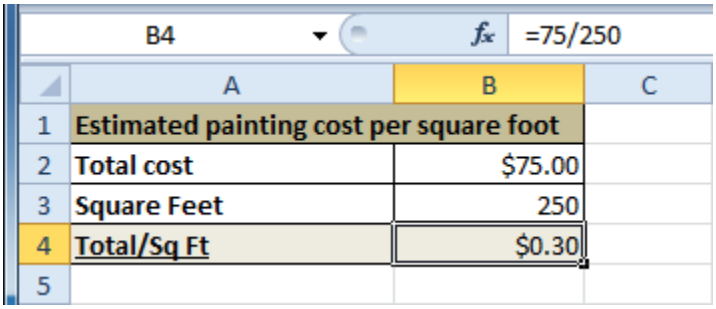
1. Select the **cell** where the answer will appear **(B4,** for example).



2. Type the **equals sign (=)**.
3. Type in the **formula** you want Excel to **calculate** (**75/250**, for example).



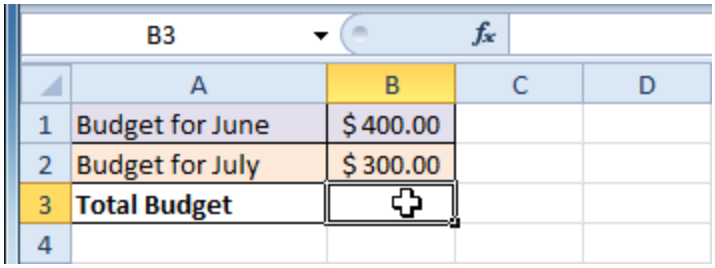
4. Press **Enter**. The formula will be calculated, and the value will be displayed in the cell.



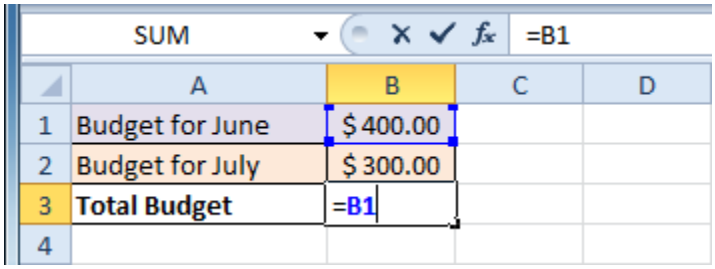
If the **result of a formula** is **too large** to be displayed in a cell, it may appear as **pound signs** (#######) instead of a value. This means **the column is not wide enough** to display the cell content. Increase **the column width** to show the cell content.

V-To creates a formula using cell references:

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

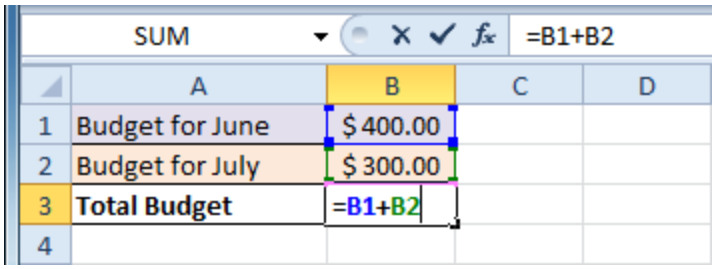


2. Type the **equals sign (=)**.
3. Type the **cell address** that contains the **first number in the equation** (**B1,** for example).

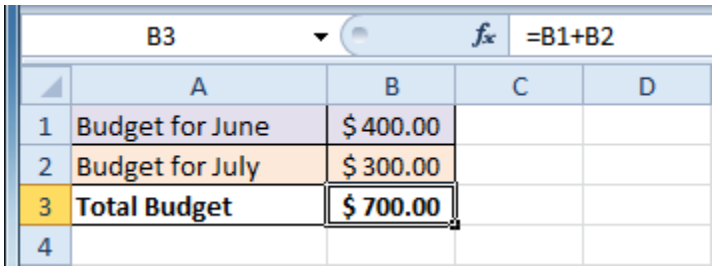


4. Type the **operator** you need for your formula. For example, type the **addition sign (+)**.

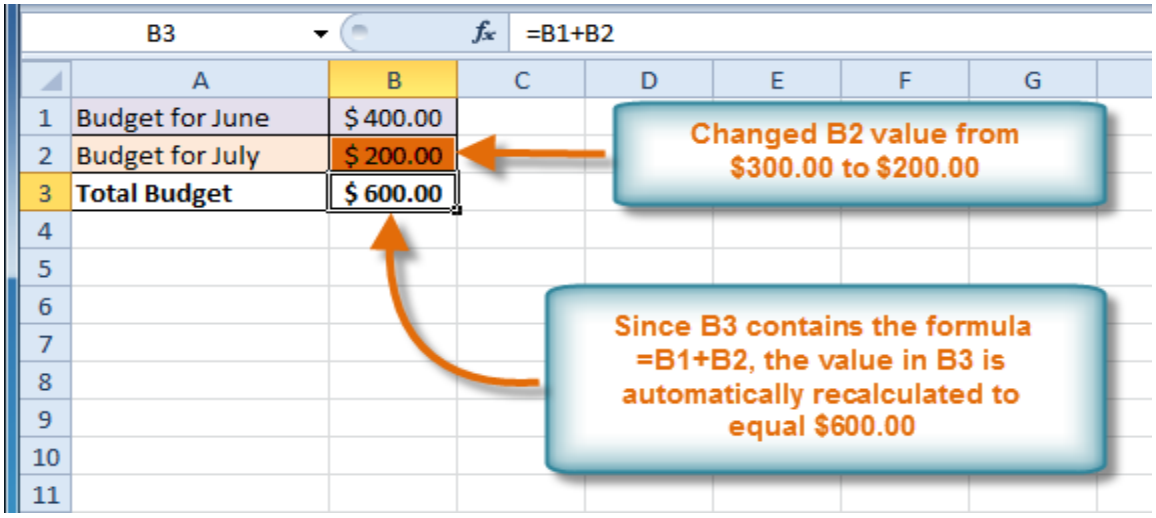
5. Type the **cell address that contains the second** number in the equation (**B2,** for example).



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



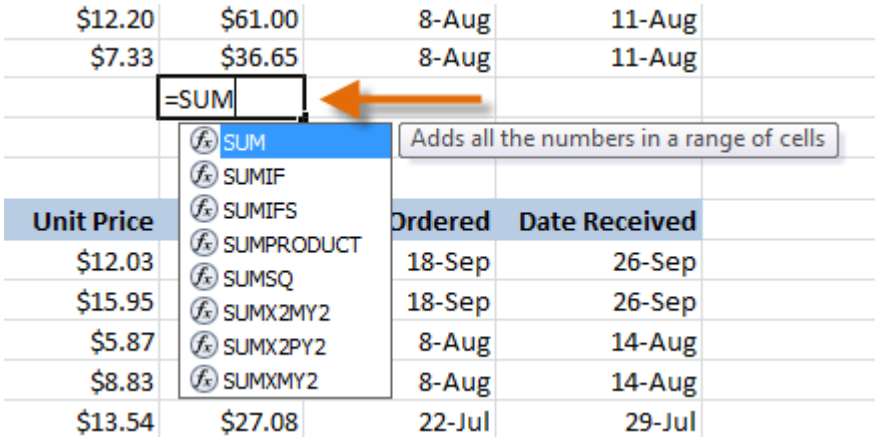
The total will automatically recalculate if



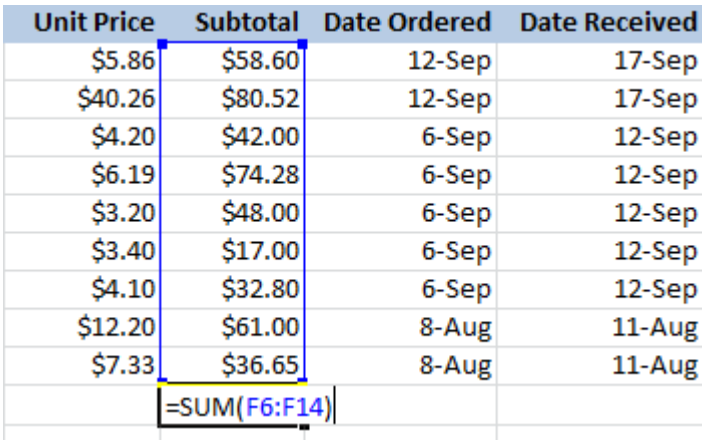
you change a value in either B1 or B2.

W-To creates an essential function in Excel:

1. Select the **cell** where the answer will appear (**F15,** for example).
2. Type the **equals sign (=)**, then enter the **function name** (**SUM**, for example).



3. Enter **the cells** for the **argument** inside the parentheses.



4. Press **Enter,** and the result will appear.

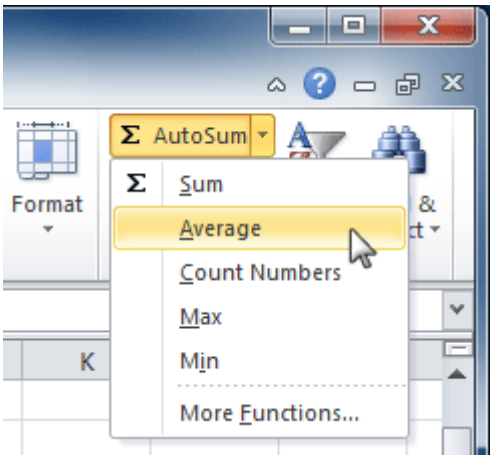
$450.85

Excel **will not always tell you** if your function contains an error, so it's up to you to check all of your tasks.

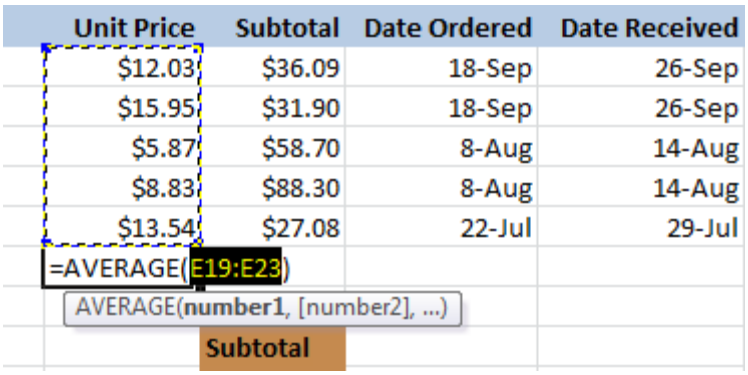
X-Using AutoSum to select standard functions

The **AutoSum** command allows you to automatically return the results for a range of cells for standard functions like SUM and AVERAGE.

1. Select the **cell** where the answer will appear (**E24**, for example).
2. Click the **Home** tab.
3. Click the AutoSum drop-down arrow in the Editing group and **select the function** you want (**Average**, for example).



4. **A formula** will appear in **E24**, the selected cell. If logically placed, **AutoSum will select your cells** for you. **Otherwise**, **you will need** to click the cells **to choose your argument**.



5. Press **Enter,** and the result will appear.

$11.24

The **AutoSum** command can also be **accessed from the Formulas tab**.

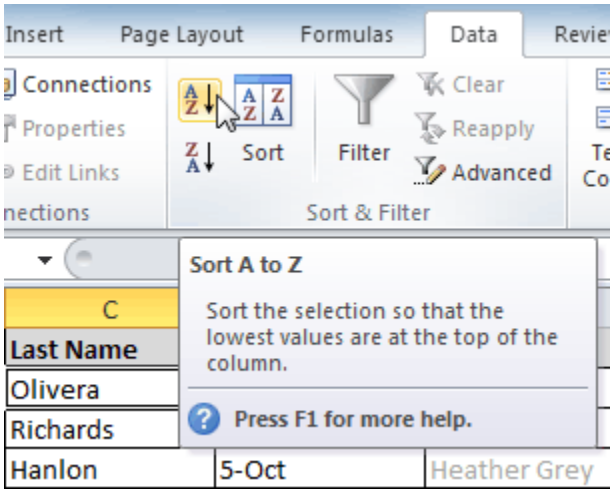
You can also use the **Alt+=** keyboard shortcut instead of the AutoSum command. Hold down the Alt key and press the equals sign to use this shortcut.

Y-To sort in alphabetical order:

1. Select a **cell in the column** you want to sort by. In this example, we'll sort by **Last Name**.

	C	D	E
1	**Last Name**	**Payment**	**T-Shirt Color**
2	Olivera	1-Oct	White
3	Richards	4-Oct	Dark Red
4	Hanlon	5-Oct	Heather Grey
5	Means	5-Oct	Dark Red

2. Select the **Data tab**, then locate the **Sort and Filter** group.
3. Click the ascending command to **Sort A to Z** or **Sort Z to A**.



4. The **data** in the **spreadsheet** will be organized alphabetically.

	C	D	E
1	**Last Name**	**Payment**	**T-Shirt Color**
2	Ackerman	1-Oct	Heather Grey
3	Albee	13-Oct	Heather Grey
4	Bell	11-Oct	Dark Red
5	Benson	11-Oct	White
6	Chen	5-Oct	Dark Red
7	Del Toro	13-Oct	White
8	Ellison	Pending	Dark Red
9	Flores	6-Oct	White
10	Hanlon	5-Oct	Heather Grey
11	Kelly	11-Oct	Dark Red
12	Kelly	11-Oct	Heather Grey
13	Lazar	14-Oct	White
14	MacDonald	Pending	Dark Red
15	Means	5-Oct	Dark Red
16	Naser	14-Oct	Dark Red
17	Nichols	6-Oct	Dark Red

Sorting options can also be found on the **Home tab**, condensed into the **Sort & Filter** command.

Z-To sort in numerical order:

1. Select **a cell in the column** you want to sort by.

	A	B	C
1	Homeroom #	First Name	Last Name
2	110	Kris	Ackerman
3	105	Nathan	Albee
4	220-B	Samantha	Bell
5	110	Matt	Benson

2. From the **Data** tab, click the **ascending command to Sort Smallest to Largest** or the **descending order Sort Largest to Smallest**.
3. The data in the spreadsheet will be organized numerically.

	A	B	C
1	Homeroom #	First Name	Last Name
2	105	Nathan	Albee
3	105	Christiana	Chen
4	105	Sidney	Kelly
5	105	Derek	MacDonald
6	105	Melissa	White
7	105	Esther	Yaron
8	110	Kris	Ackerman
9	110	Matt	Benson
10	110	Gabriel	Del Toro
11	110	Regina	Olivera
12	135	Anisa	Naser
13	135	James	Panarello
14	135	Lia	Richards
15	135	Jordan	Weller
16	135	Chantal	Weller
17	135	Alex	Yuen

A-Filtering data

Filters can be applied in different ways to improve the performance of your worksheet. You can **filter text, dates, and numbers**. You can even **use more than one filter** to narrow your results further.

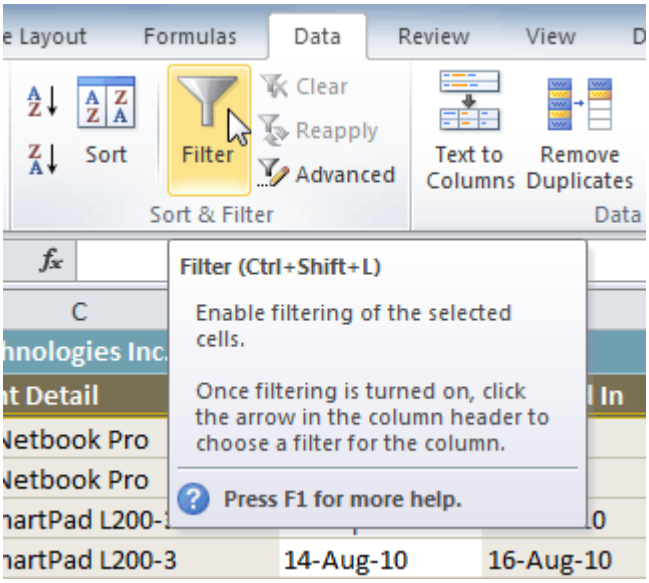
To filter data:

In this example, we'll filter the contents of an equipment log at a technology company. We'll display only the laptops and projectors that are available for checkout.

1. Begin with a worksheet that identifies each **column using a header row**.

	A	B	C	D
1	Equipment Log — Ragnar Technologies Inc.			
2	ID #	Type	Equipment Detail	Checked Out
3	1011	Laptop	10" Saris Netbook Pro	04-Oct-10
4	1012	Laptop	10" Saris Netbook Pro	29-Sep-10
5	1021	Laptop	15" EDI SmartPad L200-3	15-Sep-10
6	1022	Laptop	15" EDI SmartPad L200-3	14-Aug-10
7	1023	Laptop	15" EDI SmartPad L200-3	08-Aug-10
8	1025	Laptop	15" EDI SmartPad L200-4X	26-Sep-10
9	1031	Laptop	17" Saris X-10 Laptop	04-Oct-10
10	1032	Laptop	17" Saris X-10 Laptop	19-Sep-10
11	1033	Laptop	17" Saris X-10 Laptop	24-Sep-10
12	1034	Laptop	17" Saris X-10 Laptop	25-Aug-10
13	2050	Other	EDI SmartBoard L500-1	05-Oct-10
14	2051	Other	EDI SmartBoard L500-1	01-Oct-10
15	3000	Other	Saris Lumina Digital Camera	12-May-10

2. Select the **Data tab**, then locate the **Sort & Filter** group.
3. Click the **Filter** command.

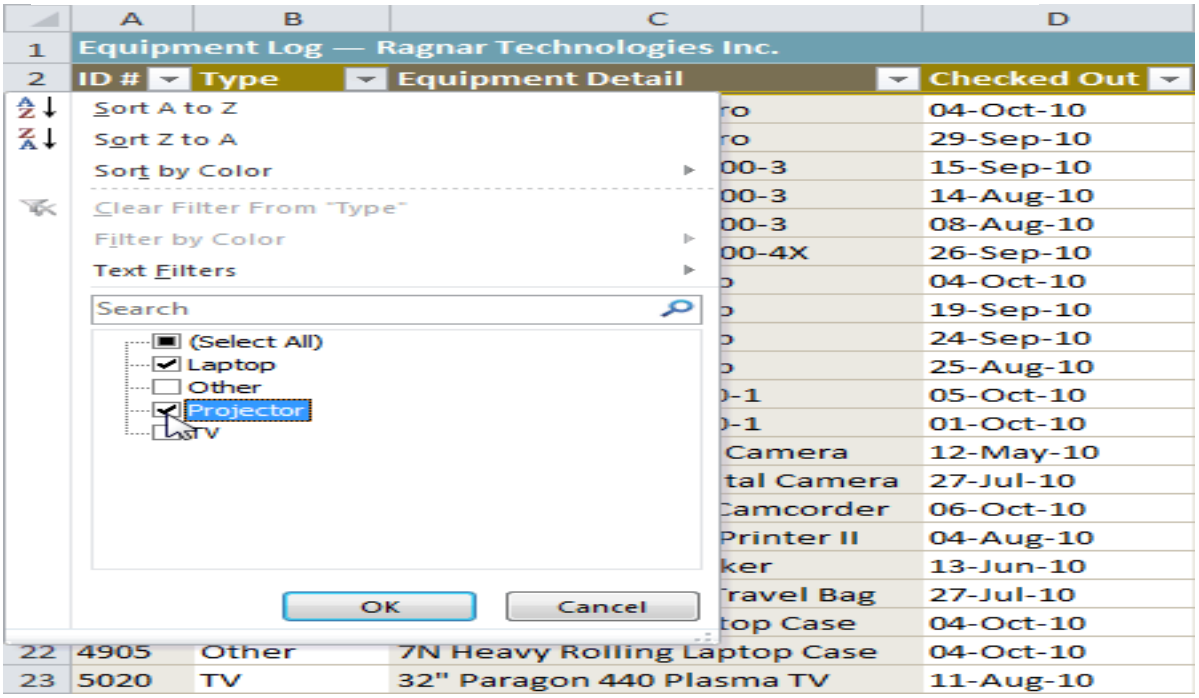


4. **Drop-down arrows** will appear in the **header of each column**.
5. Click the **drop-down arrow** for the **column you want to filter**. In this example, we'll filter the Type column to view only certain types of equipment.

	A	B	C	D
1	Equipment Log — Ragnar Technologies Inc.			
2	ID #	Type	Equipment Detail	Checked Out
3	1011	Laptop	10" Saris Netbook Pro	04-Oct-10
4	1012	Laptop	10" Saris Netbook Pro	29-Sep-10
5	1021	Laptop	15" EDI SmartPad L200-3	15-Sep-10
6	1022	Laptop	15" EDI SmartPad L200-3	14-Aug-10
7	1023	Laptop	15" EDI SmartPad L200-3	08-Aug-10

Type:
(Showing All)

6. The **Filter** menu appears.
7. **Uncheck** the boxes next to the data you don't want to view, or uncheck the box next to **Select All** to uncheck all quickly.
8. **Check** the boxes next to the data you want to view. In this example, we'll check Laptop and Projector to view only these types of equipment.



9. Click **OK**. All other data will be filtered or temporarily hidden. Only laptops and projectors will be visible.

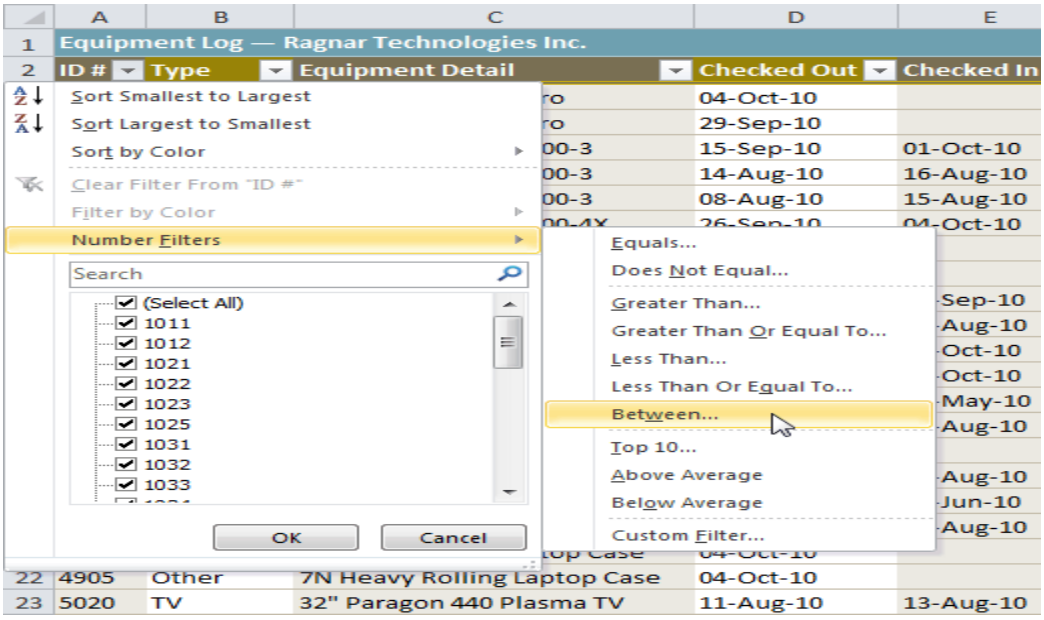
Filtering options can also be found on the **Home tab**, condensed into the **Sort & Filter** command.

	A	B	C	D
1	Equipment Log — Ragnar Technologies Inc.			
2	ID #	Type	Equipment Detail	Checked Out
3	1011	Laptop	10" Saris Netbook Pro	04-Oct-10
4	1012	Laptop	10" Saris Netbook Pro	29-Sep-10
5	1021	Laptop	15" EDI SmartPad L200-3	15-Sep-10
6	1022	Laptop	15" EDI SmartPad L200-3	14-Aug-10
7	1023	Laptop	15" EDI SmartPad L200-3	08-Aug-10
8	1025	Laptop	15" EDI SmartPad L200-4X	26-Sep-10
9	1031	Laptop	17" Saris X-10 Laptop	04-Oct-10
10	1032	Laptop	17" Saris X-10 Laptop	19-Sep-10
11	1033	Laptop	17" Saris X-10 Laptop	24-Sep-10
12	1034	Laptop	17" Saris X-10 Laptop	25-Aug-10
26	6100	Projector	Omega VisX 1.0	28-Sep-10
27	6101	Projector	Omega VisX 1.0	26-Sep-10
28	6102	Projector	Omega VisX 1.0	22-Aug-10

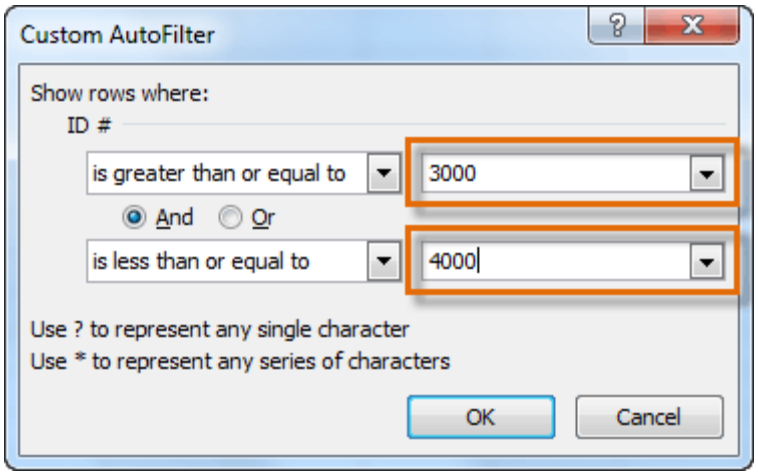
B-Using advanced number filters

Advanced number filters allow you to manipulate numbered data in different ways. For example, you could display the top and bottom numbers in a worksheet of exam grades to view the highest and lowest scores. In this example, we'll show only certain types of equipment based on the range of ID #s that have been assigned to them.

1. From the **Data** tab, click the **Filter** command.
2. Click the **drop-down arrow** in the column of **numbers** you want to filter. In this example, we'll filter the ID # column to view only a specific range of ID #s.
3. Choose **Number Filters** to open the advanced filtering menu.
4. Choose a **filter**. We'll choose Between to view ID #s between the specified numbers in this example.



5. Enter a **number** to the right of each filter. In this example, we'll view ID #s greater than or equal to 3000 but less than or equal to 4000. This will display ID #s in the 3000-4000 range.



6. Click **OK**. The data will be filtered according to your chosen filter and the specified numbers.

	A	B	C	D
1	Equipment Log — Ragnar Technologies Inc.			
2	ID #	Type	Equipment Detail	Checked Out
15	3000	Other	Saris Lumina Digital Camera	12-May-10
16	3005	Other	Saris Zoom Z-60 Digital Camera	27-Jul-10
17	3070	Other	Omega PixL Digital Camcorder	06-Oct-10
18	3800	Other	U-Go Saris DigiCam Printer II	04-Aug-10
19	3900	Other	U-Go Saris Label Maker	13-Jun-10
32				

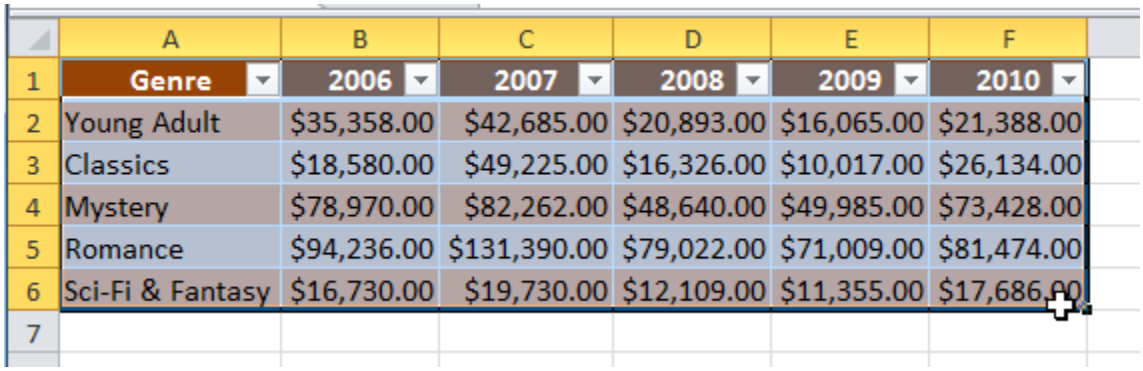
C - A **chart** is a **tool** you can use in Excel to **communicate data graphically**. Charts allow your audience to see the **meaning behind the numbers**, making showing **comparisons** and **trends** much more accessible. In this lesson, you'll learn how to **insert** and modify charts, so they communicate information effectively.

Excel workbooks can contain **a lot of data**, which can often be challenging to interpret. For example, where are the highest and lowest values? Are the numbers increasing or decreasing?

The answers to questions like these can become much more evident when data is represented as a **chart**. Excel has various charts, so you can choose one that effectively means your data.

D-To creates a chart:

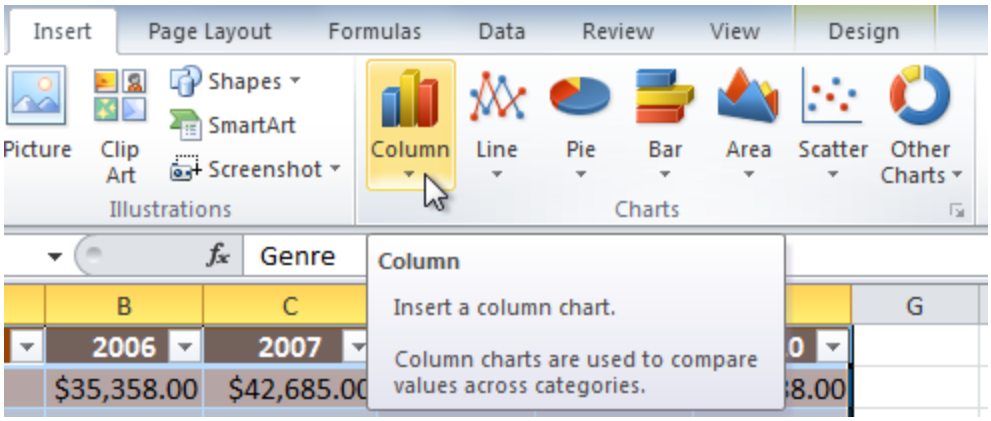
1. Select the **cells** you want to chart, including the **column titles** and **row labels**. These cells will be the **source data** for the chart.



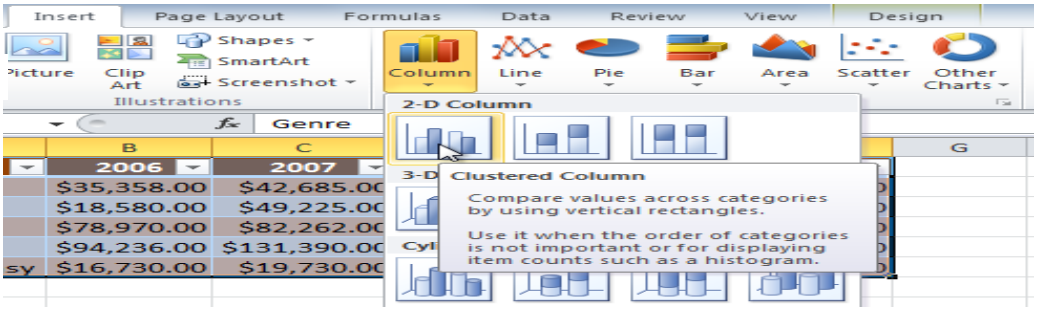
	A	B	C	D	E	F
1	Genre	2006	2007	2008	2009	2010
2	Young Adult	$35,358.00	$42,685.00	$20,893.00	$16,065.00	$21,388.00
3	Classics	$18,580.00	$49,225.00	$16,326.00	$10,017.00	$26,134.00
4	Mystery	$78,970.00	$82,262.00	$48,640.00	$49,985.00	$73,428.00
5	Romance	$94,236.00	$131,390.00	$79,022.00	$71,009.00	$81,474.00
6	Sci-Fi & Fantasy	$16,730.00	$19,730.00	$12,109.00	$11,355.00	$17,686.00
7						

2. Click the **Insert** tab.

3. Select the desired **chart category** (**Column**, for example).



4. Select the desired **chart type** from the drop-down menu (**Clustered Column**, for example).



5. The chart will appear on the worksheet.

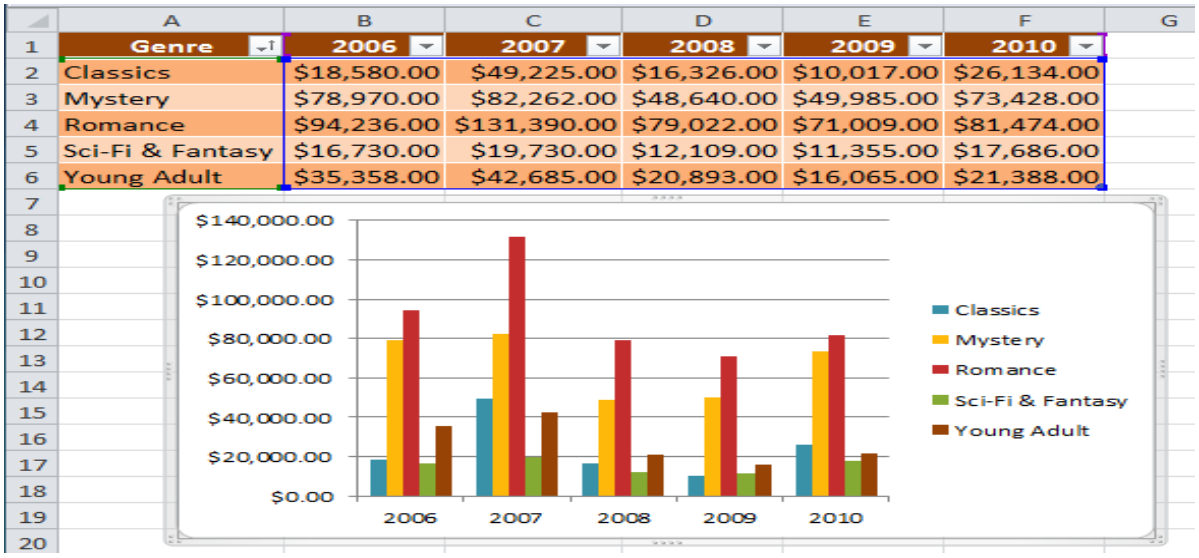
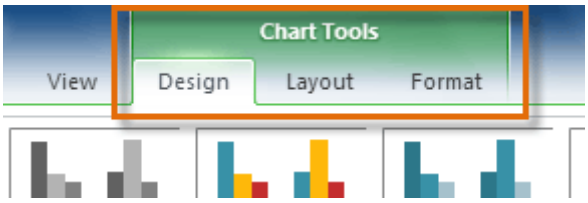


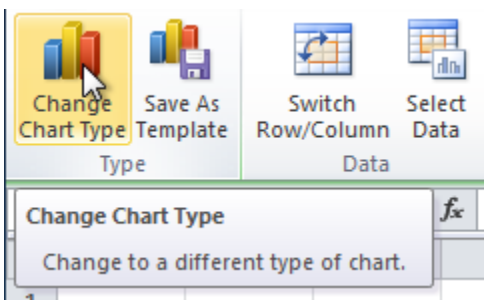
Chart tools

Once you insert a chart, a set of **chart tools** arranged into three tabs will appear on the Ribbon. These are only visible when the chart is selected. You can use these three tabs to **modify** your chart.

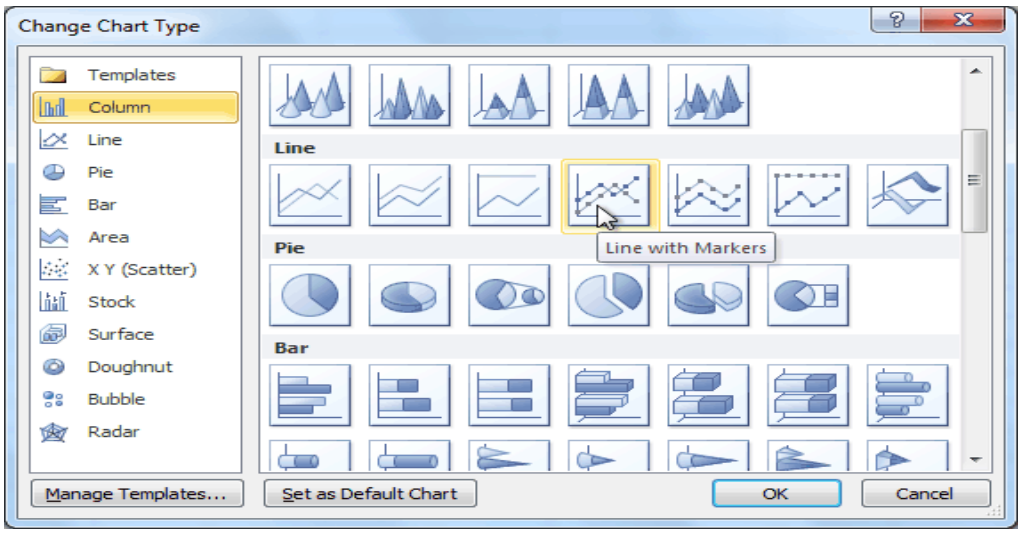


To change chart type:

1. From the **Design** tab, click the **Change Chart Type** command. A dialogue box appears.



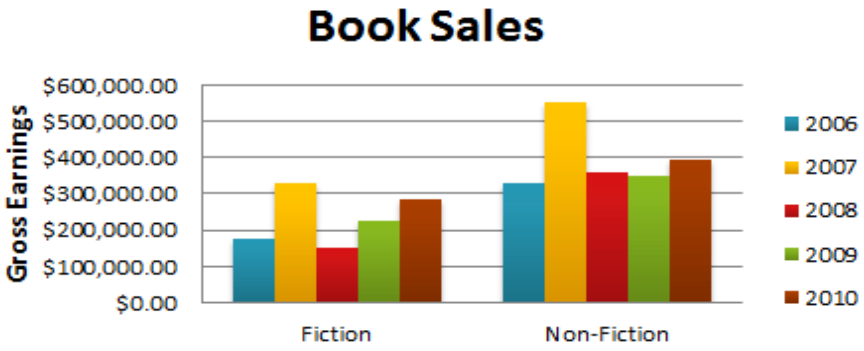
2. Select the desired **chart type**, then click **OK**.



E-To switch row and column data:

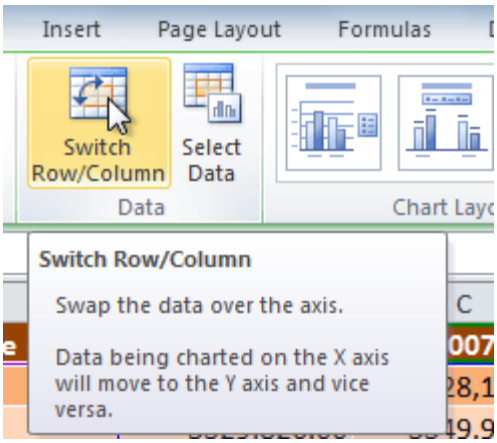
When you create a chart, the data may not be grouped as you want. In the **clustered column chart** below, the Book Sales statistics are grouped **by Fiction and Non-Fiction**, with a column for each year. However, you can also **switch the row and column data** so the chart will group the statistics **by year**, with columns for Fiction and Non-Fiction. The graph contains the same data in both cases—it's just organized differently.

1. Select

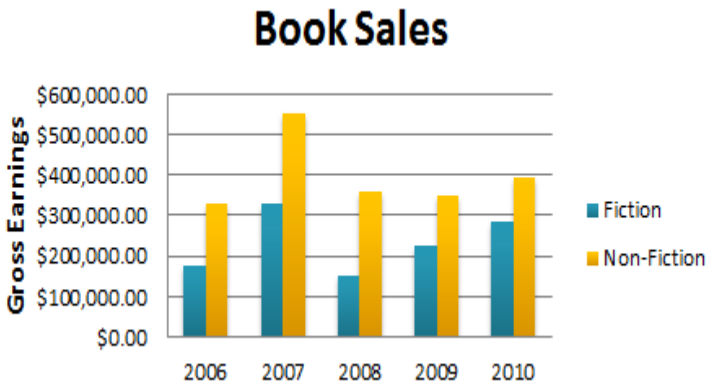


the **chart**.

2. From the **Design** tab, select the **Switch Row/Column** command.

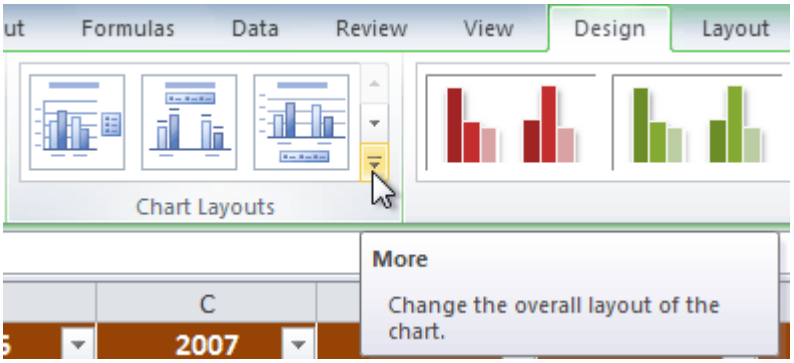


3. The chart will be readjusted.

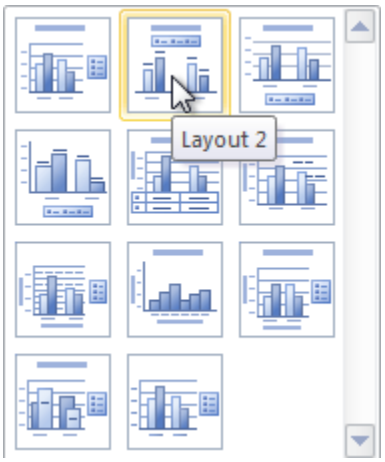


F-To change chart layout:

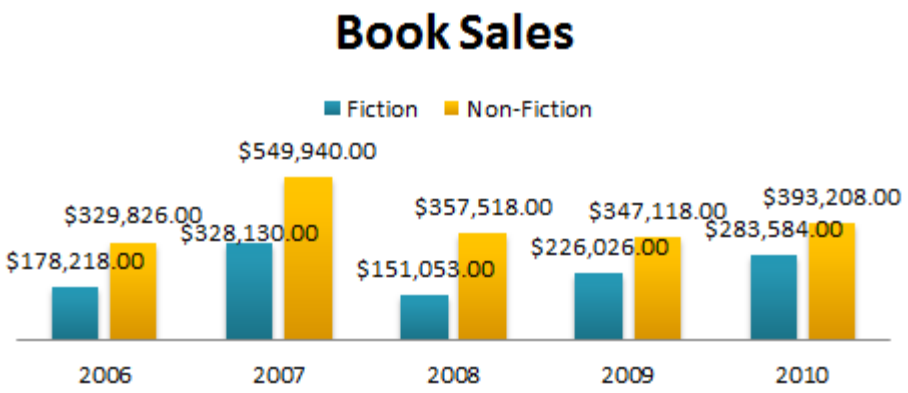
1. Select the **Design** tab.
2. Click the **More** drop-down arrow in the **Chart Layouts** group to see all available layouts.



3. Select the desired layout.



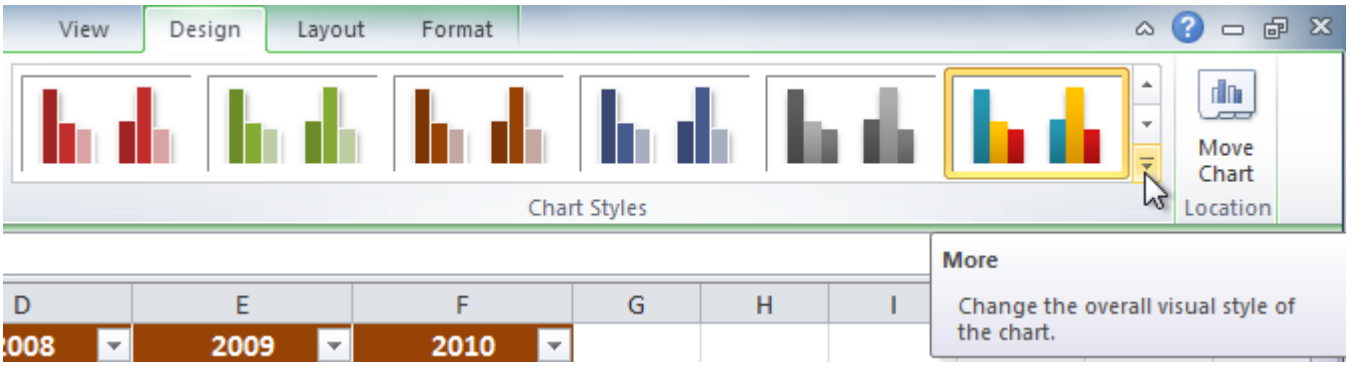
4. The chart will update to reflect the new layout.



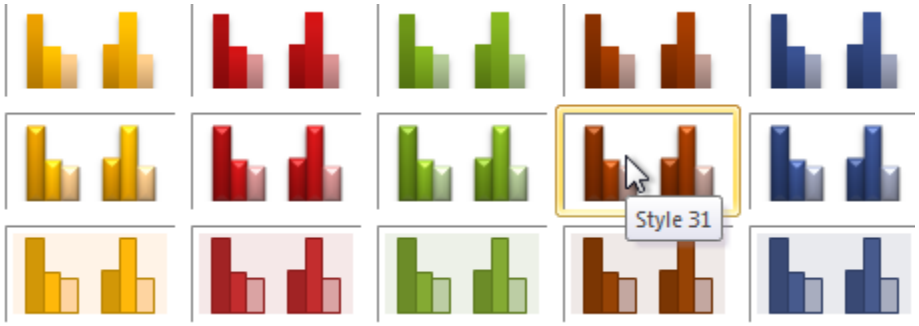
Some layouts include **chart titles**, **axes**, or **legend labels**. Place the insertion point in the text and begin typing to change them.

G-To change chart style:

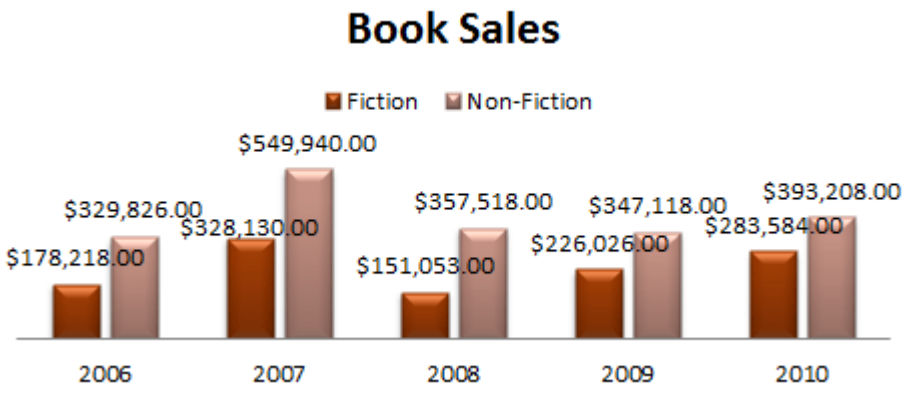
1. Select the **Design** tab.
2. Click the **More** drop-down arrow in the **Chart Styles** group to see all available styles.



3. Select the desired style.

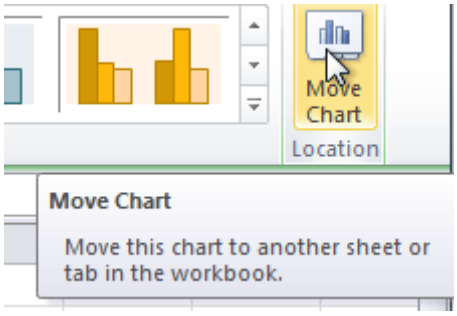


4. The chart will update to reflect the new style.

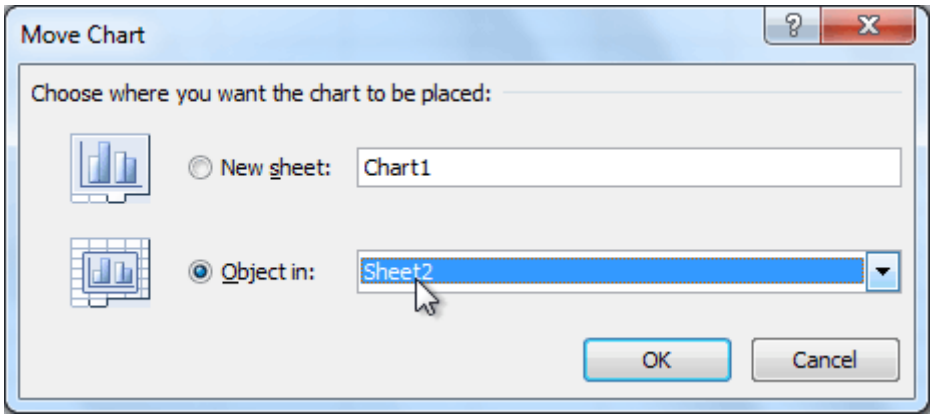


H-To moves the chart to a different worksheet:

1. Select the **Design** tab.
2. Click the **Move Chart** command. A dialogue box appears. The current location of the chart is selected.



3. Please select the desired location for the chart (choose an existing worksheet or select New Sheet and name it).



4. Click **OK**. The chart will appear in the new location.