

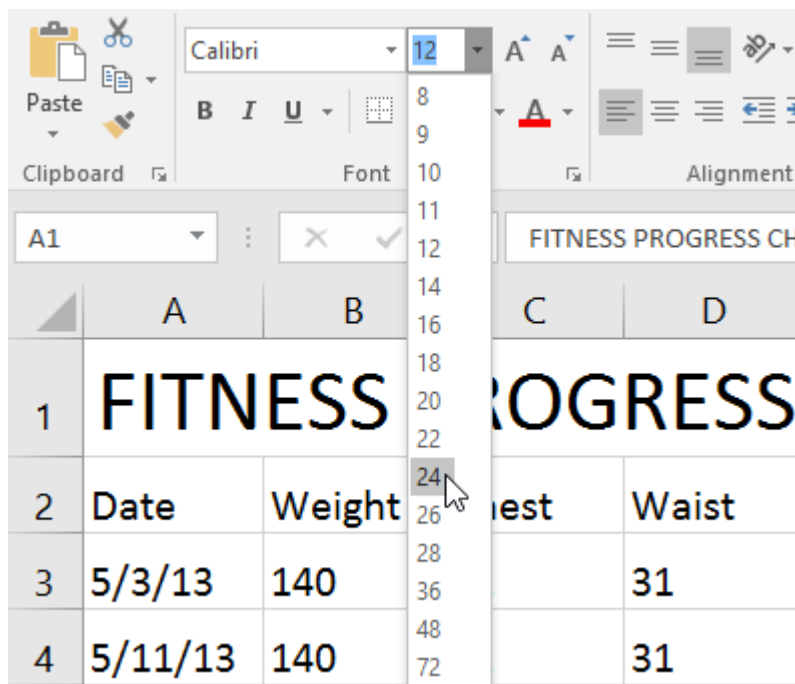
Formatting Cells

To change the font size:

1. Select the **cell(s)** you want to modify.

	A	B	C	D
1	FITNESS PROGRESS CHART			
2	Date	Weight	Chest	Waist
3	5/3/13	140	32	31
4	5/11/13	140	32	31

2. On the **Home** tab, click the **drop-down arrow** next to the **Font Size** command, then select the desired **font size**. In our example, we will choose **24** to make the text **larger**.



3. The text will change to the **selected font size**.

	A	B	C	D	E	F
1	FITNESS PROGRESS CHART					
2	Date	Weight	Chest	Waist	Hips	Forearm
3	5/3/13	140	32	31	40	11.5
4	5/11/13	140	32	31	39.5	11.5

You can also use the **Increase Font Size** and **Decrease Font Size** commands or enter a **custom font size** using your keyboard.



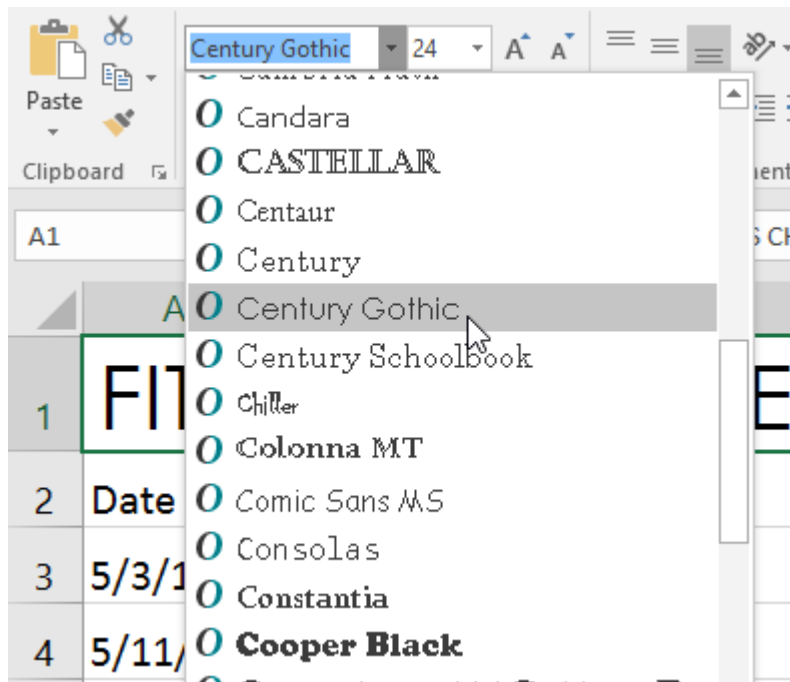
To change the font:

By default, the font of each new workbook is set to Calibri. However, Excel provides many other fonts you can use to customize your cell text. In the example below, we'll format our **title cell** to help distinguish it from the rest of the worksheet.

1. Select the **cell(s)** you want to modify.

	A	B	C	D
1	FITNESS PROGRESS			
2	Date	Weight	Chest	Waist
3	5/3/13	140	32	31
4	5/11/13	140	32	31

2. On the **Home** tab, click the **drop-down arrow** next to the **Font** command, then select the desired **font**. In our example, we'll choose **Century Gothic**.



3. The text will change to the **selected font**.

	A	B	C	D
1	FITNESS PROGRE			
2	Date	Weight	Chest	Waist
3	5/3/13	140	32	31
4	5/11/13	140	32	31

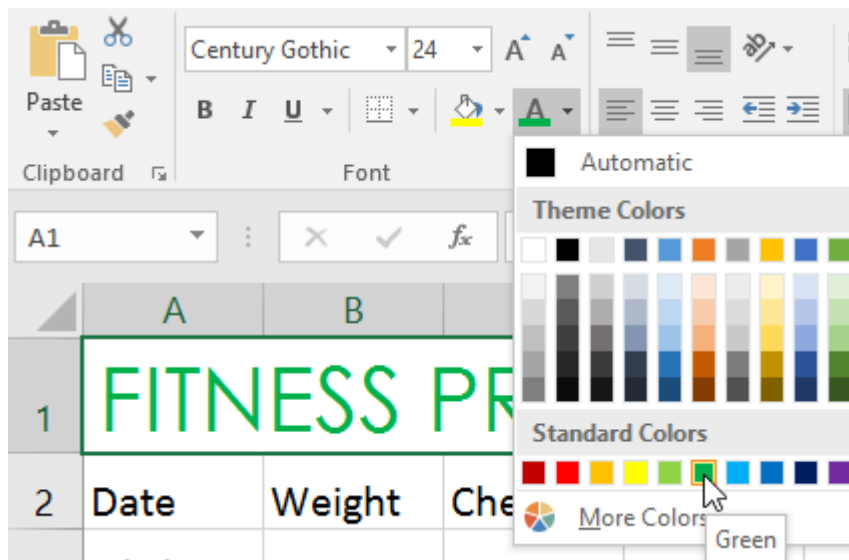
When creating a workbook in the workplace, you'll want to select a font that is easy to read. Along with Calibri, standard reading fonts include Cambria, Times New Roman, and Arial.

To change the font color:

1. Select the **cell(s)** you want to modify.

	A	B	C	D	E
1	FITNESS+PROGRESS				
2	Date	Weight	Chest	Waist	Hips
3	5/3/13	140	32	31	40
4	5/11/13	140	32	31	39.5

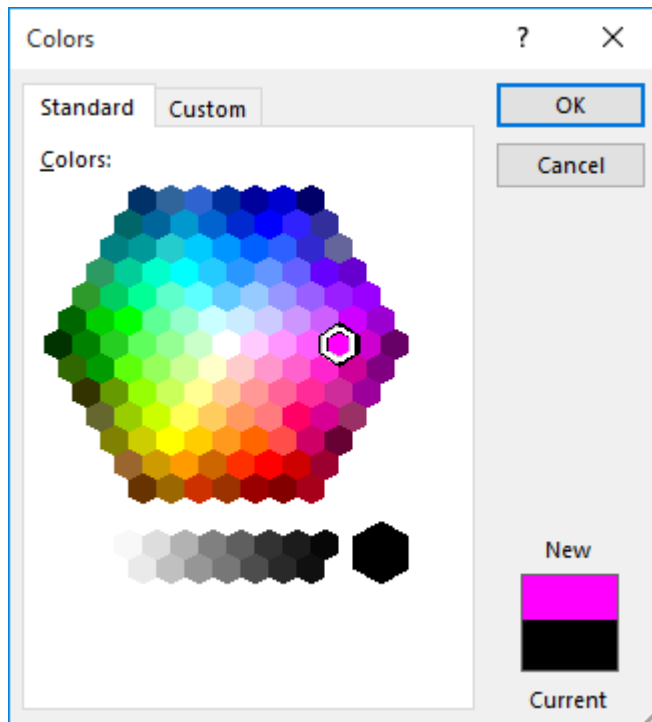
- On the **Home** tab, click the **drop-down arrow** next to the **Font Color** command, then select the desired **font color**. In our example, we'll choose **Green**.



- The text will change to the **selected font color**.

	A	B	C	D	E
1	FITNESS PROGRESS				
2	Date	Weight	Chest	Waist	Hips
3	5/3/13	140	32	31	40
4	5/11/13	140	32	31	39.5

Select **More Colors** at the bottom of the menu to access additional color options. We've changed the font color to a bright pink.

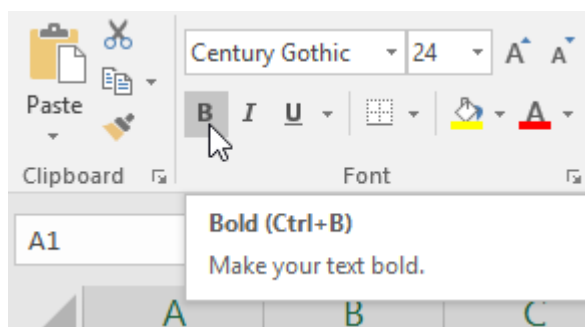


To use the Bold, Italic, and Underline commands:

1. Select the **cell(s)** you want to modify.

	A	B	C	D	E
1	FITNESS PROGRESS				
2	Date	Weight	Chest	Waist	Hips
3	5/3/13	140	32	31	40
4	5/11/13	140	32	31	39.5

2. Click the Bold (**B**), Italic (*I*), or Underline (U) command on the **Home** tab.
In our example, we'll make the selected cells **bold**.



3. The **selected style** will be applied to the text.

	A	B	C	D	E
1	FITNESS PROGRESS				
2	Date	Weight	Chest	Waist	Hips
3	5/3/13	140	32	31	40
4	5/11/13	140	32	31	39.5

You can also press **Ctrl+B** on your keyboard to make selected text **bold**, **Ctrl+I** to apply **italics**, and **Ctrl+U** to apply an **underline**.

Cell borders and fill colors

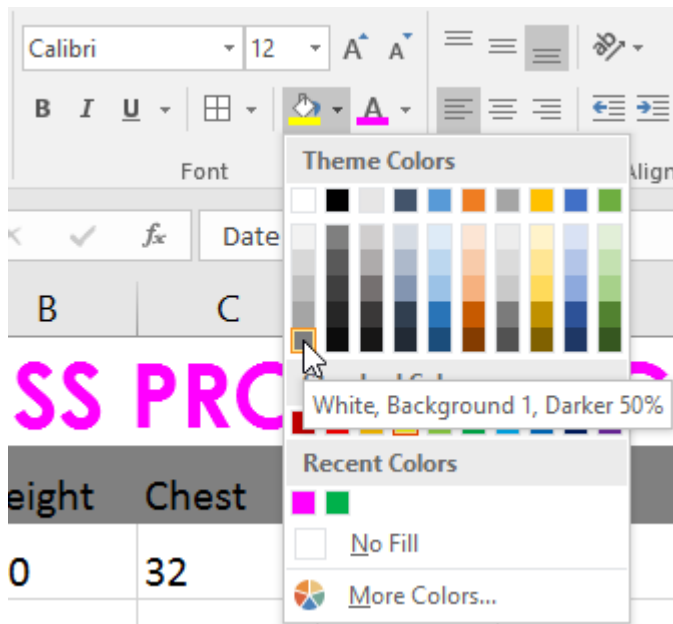
Cell borders and **fill colors** allow you to create clear and defined boundaries for different sections of your worksheet. Below, we'll add cell borders and fill color to our **header cells** to help distinguish them from the rest of the worksheet.

To add a fill color:

1. Select the **cell(s)** you want to modify.

	A	B	C	D	E	F	G	H	I
1	FITNESS PROGRESS CHART								
2	Date	Weight	Chest	Waist	Hips	Forearm	Estimated Lean Body	Estimated Body Fat	Estimated Body Fat %
3	5/3/13	140	32	31	40	11.5	103.8	36.2	0.259
4	5/11/13	140	32	31	39.5	11.5	103.9	36.1	0.258
5	5/19/13	139	32	31	39.5	11.5	103.2	35.8	0.258
6	5/26/13	138	31	30	39	11	103.4	35.6	0.256
7	6/1/13	138	31	30	39	11	103.4	35.6	0.256

2. On the **Home** tab, click the **drop-down arrow** next to the **Fill Color** command, then select the **fill color** you want to use. In our example, we'll choose a dark gray.



3. The **selected fill color** will appear in the selected cells. We've also changed the **font color** to **white** to make it more readable with this dark fill color.

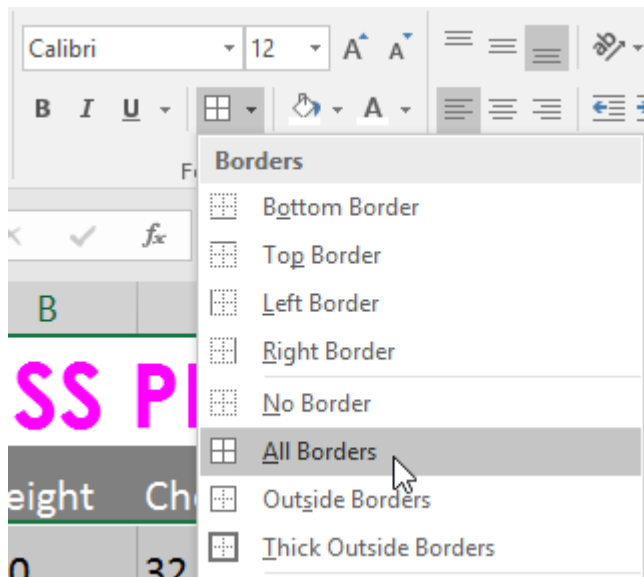
	A	B	C	D	E	F	G	H	I
1	FITNESS PROGRESS CHART								
2	Date	Weight	Chest	Waist	Hips	Forearm	Estimated Lean Body	Estimated Body Fat	Estimated Body Fat %
3	5/3/13	140	32	31	40	11.5	103.8	36.2	0.259
4	5/11/13	140	32	31	39.5	11.5	103.9	36.1	0.258
5	5/19/13	139	32	31	39.5	11.5	103.2	35.8	0.258
6	5/26/13	138	31	30	39	11	103.4	35.6	0.256
7	6/1/13	138	31	30	39	11	103.4	35.6	0.256

To add a border:

1. Select the **cell(s)** you want to modify.

	A	B	C	D	E	F	G	H	I
1	FITNESS PROGRESS CHART								
2	Date	Weight	Chest	Waist	Hips	Forearm	Estimated Lean Body	Estimated Body Fat	Estimated Body Fat %
3	5/3/13	140	32	31	40	11.5	103.8	36.2	0.259
4	5/11/13	140	32	31	39.5	11.5	103.9	36.1	0.258
5	5/19/13	139	32	31	39.5	11.5	103.2	35.8	0.258
6	5/26/13	138	31	30	39	11	103.4	35.6	0.256
7	6/1/13	138	31	30	39	11	103.4	35.6	0.256

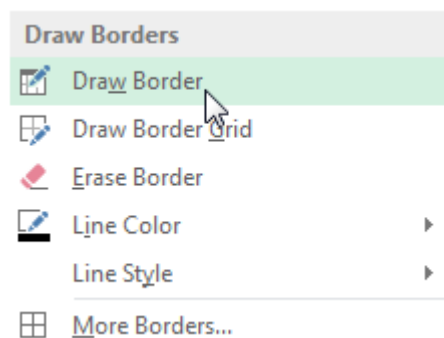
2. On the **Home** tab, click the **drop-down arrow** next to the **Borders** command, then select the **border style** you want to use. In our example, we'll choose to display **All Borders**.



3. The **selected border style** will appear.

	A	B	C	D	E	F	G	H	I
1	FITNESS PROGRESS CHART								
2	Date	Weight	Chest	Waist	Hips	Forearm	Estimated Lean Body	Estimated Body Fat	Estimated Body Fat %
3	5/3/13	140	32	31	40	11.5	103.8	36.2	0.259
4	5/11/13	140	32	31	39.5	11.5	103.9	36.1	0.258
5	5/19/13	139	32	31	39.5	11.5	103.2	35.8	0.258
6	5/26/13	138	31	30	39	11	103.4	35.6	0.256
7	6/1/13	138	31	30	39	11	103.4	35.6	0.256

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



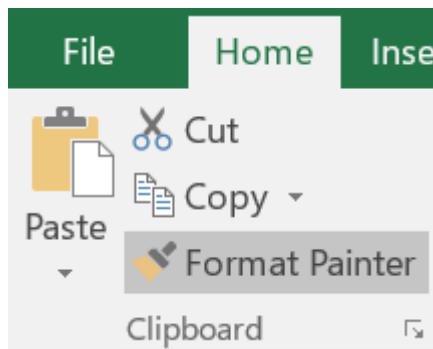
Text alignment

By default, any text entered into your worksheet will be aligned to the bottom-left of a cell, while any numbers will be aligned to the bottom-right. Changing the **alignment** of your cell content allows you to choose how the content is displayed in any cell, which can make your cell content easier to read.

The Format Painter

If you want to copy formatting from one cell to another, you can use the **Format Painter** command on the **Home** tab. When you click the Format Painter, it will

copy all of the formatting from the selected cell. You can then **click and drag** over any cells where you want to paste the formatting.



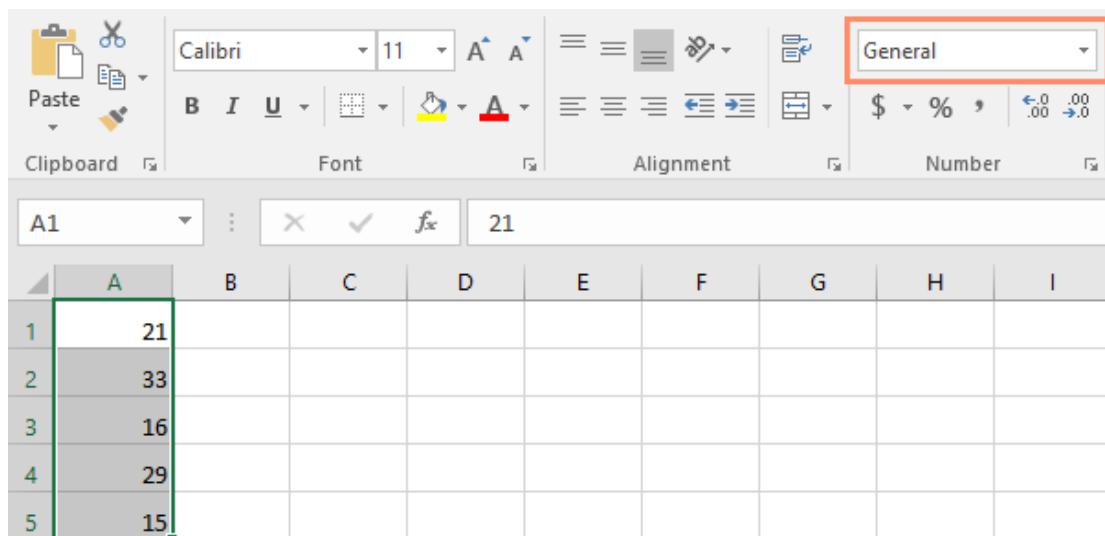
Watch the video below to learn two different ways to use the Format Painter.

Understanding Number Formats

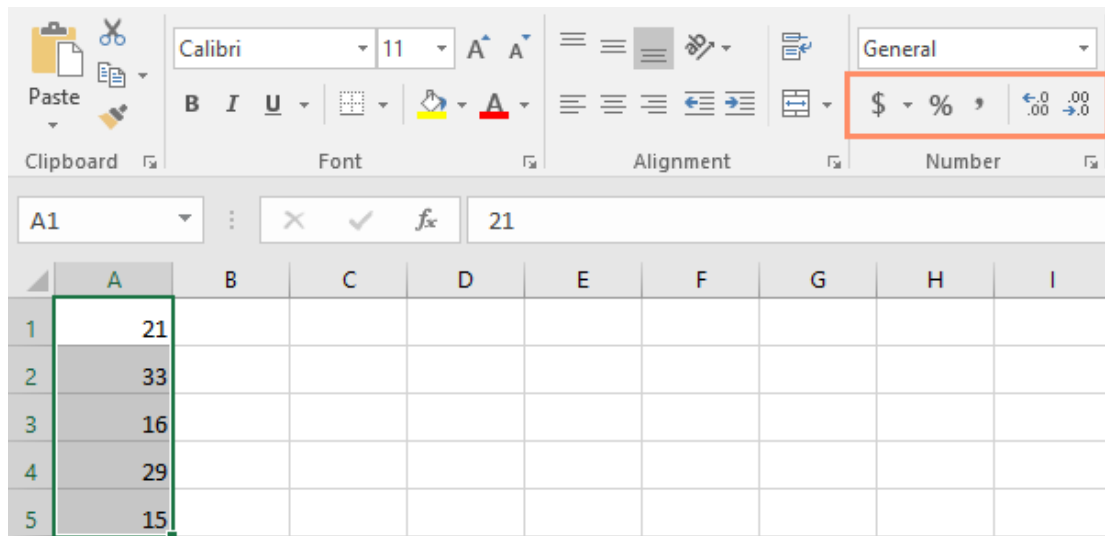
Applying number formats

Just like other types of formatting, like changing the font color, you'll apply number formats by selecting cells and choosing the desired formatting option. There are two main ways to choose a number format:

- Go to the **Home** tab, click the **Number Format** drop-down menu in the **Number** group, and select the desired format.

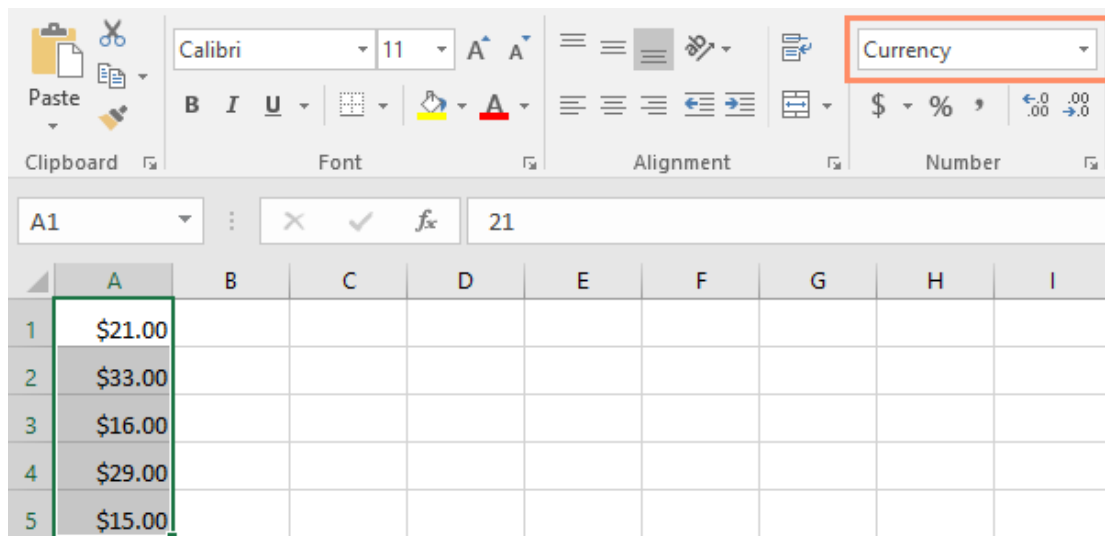


- Click one of the quick number-formatting commands below the drop-down menu.

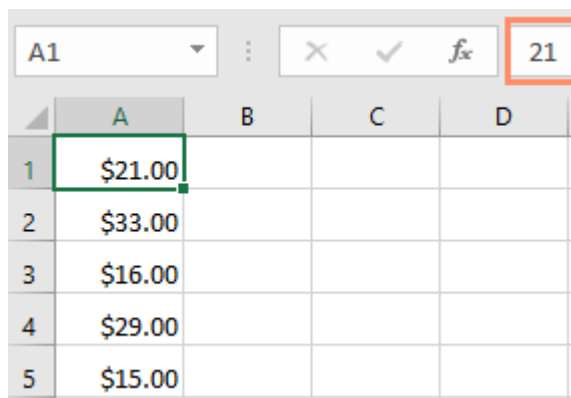


You can also select the desired cells and press **Ctrl+1** on your keyboard to access additional number-formatting options.

In this example, we've applied the **Currency** number format, which adds currency symbols (\$) and displays two decimal places for any numerical values.



If you select any cells with number formatting, you can see the **actual value** of the cell in the formula bar. The spreadsheet will use this value for formulas and other calculations.



Using number formats correctly

There's more to number formatting than selecting cells and applying a format. Spreadsheets can actually apply number formatting **automatically** based on the way you enter data. This means you'll need to enter data in a way the program can understand, then ensure that cells are using the proper number format. For example, the image below shows how to use number formats correctly for dates, percentages, and times:

		
	Wrong	Right
Date	January 1st	1/1/2014
Percent	50	50%
Time	Noon	12:00 pm

There are many times when percentage formatting will be useful. For example, in the images below notice how the **sales tax rate** is formatted differently for each spreadsheet (5, 5%, and 0.05):

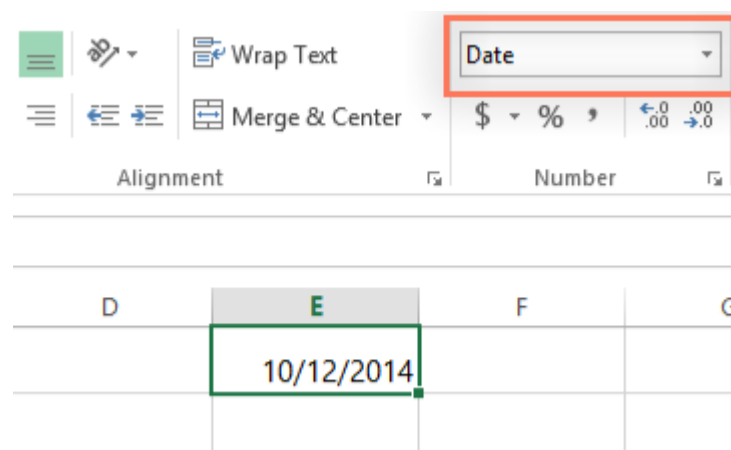
																																															
<table><tr><td colspan="3">=C2*C4</td></tr><tr><td>B</td><td>C</td><td>D</td></tr><tr><td>Item</td><td>Price</td><td>Sales Tax</td></tr><tr><td>Jacket</td><td>\$22.50</td><td>\$112.50</td></tr><tr><td>Sales Tax Rate</td><td>5</td><td></td></tr></table>	=C2*C4			B	C	D	Item	Price	Sales Tax	Jacket	\$22.50	\$112.50	Sales Tax Rate	5		<table><tr><td colspan="3">=C2*C4</td></tr><tr><td>B</td><td>C</td><td>D</td></tr><tr><td>Item</td><td>Price</td><td>Sales Tax</td></tr><tr><td>Jacket</td><td>\$22.50</td><td>\$1.13</td></tr><tr><td>Sales Tax Rate</td><td>5%</td><td></td></tr></table>	=C2*C4			B	C	D	Item	Price	Sales Tax	Jacket	\$22.50	\$1.13	Sales Tax Rate	5%		<table><tr><td colspan="3">=C2*C4</td></tr><tr><td>B</td><td>C</td><td>D</td></tr><tr><td>Item</td><td>Price</td><td>Sales Tax</td></tr><tr><td>Jacket</td><td>\$22.50</td><td>\$1.13</td></tr><tr><td>Sales Tax Rate</td><td>0.05</td><td></td></tr></table>	=C2*C4			B	C	D	Item	Price	Sales Tax	Jacket	\$22.50	\$1.13	Sales Tax Rate	0.05	
=C2*C4																																															
B	C	D																																													
Item	Price	Sales Tax																																													
Jacket	\$22.50	\$112.50																																													
Sales Tax Rate	5																																														
=C2*C4																																															
B	C	D																																													
Item	Price	Sales Tax																																													
Jacket	\$22.50	\$1.13																																													
Sales Tax Rate	5%																																														
=C2*C4																																															
B	C	D																																													
Item	Price	Sales Tax																																													
Jacket	\$22.50	\$1.13																																													
Sales Tax Rate	0.05																																														
No percentage formatting	Percentage formatting	Written as decimal																																													

As you can see, the calculation in the spreadsheet on the left didn't work correctly. Without the percentage number format, our spreadsheet thinks we want to multiply \$22.50 by 5, not 5%. And while the spreadsheet on the right still works without percentage formatting, the spreadsheet in the middle is easier to read.

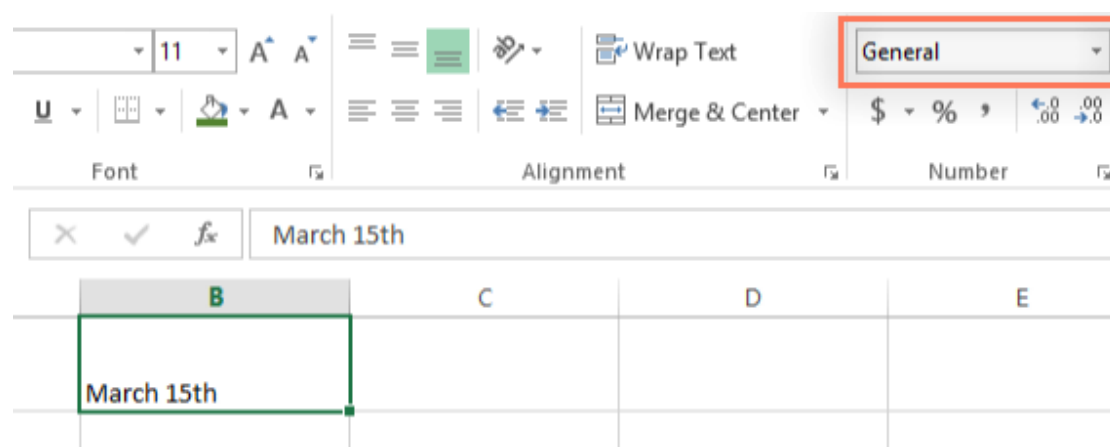
Date formats

Whenever you're working with **dates**, you'll want to use a date format to tell the spreadsheet that you're referring to **specific calendar dates**, like July 15, 2014. Date formats also allow you to work with a powerful set of date functions that use time and date information to calculate an answer.

Spreadsheets don't understand information the same way a person would. For instance, if you type **October** into a cell, the spreadsheet won't know you're entering a date so it will treat it like any other text. Instead, when you enter a date, you'll need to use a **specific format** your spreadsheet understands, like **month/day/year** (or **day/month/year** depending on which country you're in). In the example below, we'll type **10/12/2014** for October 12, 2014. Our spreadsheet will then automatically apply the date number format for the cell.



If the date formatting isn't applied automatically, it means the spreadsheet did not understand the data you entered. In the example below, we've typed **March 15th**. The spreadsheet did not understand that we were referring to a date, so this cell is still using the **general** number format.



On the other hand, if we type **March 15** (without the "th"), the spreadsheet **will** recognize it as a date. Because it doesn't include a year, the spreadsheet will automatically add the current year so the date will have all of

the necessary information. We could also type the date several other ways, like **3/15**, **3/15/2014**, or **March 15 2014**, and the spreadsheet would still recognize it as a date.

Introduction to Formulas

One of the most powerful features in Excel is the ability to **calculate** numerical information using **formulas**. Just like a calculator, Excel can add, subtract, multiply, and divide. In this lesson, we'll show you how to use **cell references** to create simple formulas.

Mathematical operators

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

Addition	+
Subtraction	-
Multiplication	*
Division	/
Exponents	^

All formulas in Excel must begin with an **equals sign** (=). This is because the cell contains, or is equal to, the formula and the value it calculates.

Understanding cell references

While you can create simple formulas in Excel using numbers (for example, **=2+2** or **=5*5**), most of the time you will use **cell addresses** to create a formula. This is known as making a **cell reference**. Using cell references will ensure that your formulas are always accurate because you can change the value of referenced cells without having to rewrite the formula.

By combining a mathematical operator with cell references, you can create a variety of simple formulas in Excel. Formulas can also include a combination of cell references and numbers, as in the examples below:

=A1+A2	Adds cells A1 and A2
=C4-3	Subtracts 3 from cell C4
=E7/J4	Divides cell E7 by J4
=N10*1.05	Multiplies cell N10 by 1.05
=R5^2	Finds the square of cell R5

To create a formula:

In our example below, we'll use a simple formula and cell references to calculate a budget.

1. Select the **cell** that will contain the formula. In our example, we'll select cell **D12**.

D12			
	B	C	D
2			
3	QUANTITY	PRICE PER UNIT	LINE TOTAL
4	15	\$8.75	
5	18	\$2.59	
6	9	\$14.25	
7	12	\$2.99	
8			
9			
10		JUNE BUDGET	\$1,200
11		JULY BUDGET	\$1,500
12		TOTAL	+

2. Type the **equals sign (=)**. Notice how it appears in both the **cell** and the **formula bar**.

SUM			
	B	C	D
2			
3	QUANTITY	PRICE PER UNIT	LINE TOTAL
4	15	\$8.75	
5	18	\$2.59	
6	9	\$14.25	
7	12	\$2.99	
8			
9			
10		JUNE BUDGET	\$1,200
11		JULY BUDGET	\$1,500
12		TOTAL	=

3. Type the **cell address** of the cell you want to reference first in the formula: cell **D10** in our example. A **blue border** will appear around the referenced cell.

SUM			=D10
	B	C	D
2			
3	QUANTITY	PRICE PER UNIT	LINE TOTAL
4	15	\$8.75	
5	18	\$2.59	
6	9	\$14.25	
7	12	\$2.99	
8			
9			
10		JUNE BUDGET	\$1,200
11		JULY BUDGET	\$1,500
12		TOTAL	=D10

4. Type the **mathematical operator** you want to use. In our example, we'll type the **addition sign (+)**.
5. Type the **cell address** of the cell you want to reference second in the formula: cell **D11** in our example. A **red border** will appear around the referenced cell.

SUM				=D10+D11
	B	C	D	
2				
3	QUANTITY	PRICE PER UNIT	LINE TOTAL	
4	15	\$8.75		
5	18	\$2.59		
6	9	\$14.25		
7	12	\$2.99		
8				
9				
10		JUNE BUDGET	\$1,200	
11		JULY BUDGET	\$1,500	
12		TOTAL	=D10+D11	

6. Press **Enter** on your keyboard. The formula will be **calculated**, and the **value** will be displayed in the cell. If you select the cell again, notice that the cell displays the result, while the formula bar displays the formula.

D12				=D10+D11
	B	C	D	
2				
3	QUANTITY	PRICE PER UNIT	LINE TOTAL	
4	15	\$8.75		
5	18	\$2.59		
6	9	\$14.25		
7	12	\$2.99		
8				
9				
10		JUNE BUDGET	\$1,200	
11		JULY BUDGET	\$1,500	
12		TOTAL	\$2,700	

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. Simply **increase the column width** to show the cell content.

Modifying values with cell references

The true advantage of cell references is that they allow you to **update data** in your worksheet without having to rewrite formulas. In the example below, we've modified the value of cell D10 from \$1,200 to \$1,800. The formula in D12 will automatically recalculate and display the new value in cell D12.

	C	D
10	JUNE BUDGET	\$1,800
11	JULY BUDGET	\$1,500
12	TOTAL	\$3,300

To create a formula using the point-and-click method:

Instead of typing cell addresses manually, you can **point and click** the cells you want to include in your formula. This method can save a lot of time and effort when creating formulas. In our example below, we'll create a formula to calculate the cost of ordering several boxes of plastic silverware.

1. Select the **cell** that will contain the formula. In our example, we'll select cell **D4**.

	A	B	C	D
1	 Budget & Paper Supplies Sabrosa Empanadas & More 1202 Biscayne Bay Drive Orlando, FL 32804			
2	PAPER SUPPLY ORDERS			
3	ITEM	QUANTITY	PRICE PER UNIT	LINE TOTAL
4	Plastic Silverware (box of 100)	15	\$8.75	+
5	Napkins (box of 250)	18	\$2.59	
6	Plates (box of 50)	9	\$14.25	
7	Plastic Cups (box of 100)	12	\$2.99	
8				

2. Type the **equals sign (=)**.
3. Select the **cell** you want to reference first in the formula: cell **B4** in our example. The **cell address** will appear in the formula.

B4				=B4
	A	B	C	D
1	 Budget & Paper Supplies Sabrosa Empanadas & More 1202 Biscayne Bay Drive Orlando, FL 32804			
2	PAPER SUPPLY ORDERS			
3	ITEM	QUANTITY	PRICE PER UNIT	LINE TOTAL
4	Plastic Silverware (box of 100)	15	\$8.75	=B4
5	Napkins (box of 250)	18	\$2.59	
6	Plates (box of 50)	9	\$14.25	
7	Plastic Cups (box of 100)	12	\$2.99	
8				

4. Type the **mathematical operator** you want to use. In our example, we'll type the **multiplication sign (*)**.
5. Select the **cell** you want to reference second in the formula: cell **C4** in our example. The **cell address** will appear in the formula.

C4				=B4*C4
	A	B	C	D
1	 Budget & Paper Supplies Sabrosa Empanadas & More 1202 Biscayne Bay Drive Orlando, FL 32804			
2	PAPER SUPPLY ORDERS			
3	ITEM	QUANTITY	PRICE PER UNIT	LINE TOTAL
4	Plastic Silverware (box of 100)	15	\$8.75	=B4*C4
5	Napkins (box of 250)	18	\$2.59	
6	Plates (box of 50)	9	\$14.25	
7	Plastic Cups (box of 100)	12	\$2.99	
8				

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

D4				=B4*C4
	A	B	C	D
1	 Budget & Paper Supplies Sabrosa Empanadas & More 1202 Biscayne Bay Drive Orlando, FL 32804			
2	PAPER SUPPLY ORDERS			
3	ITEM	QUANTITY	PRICE PER UNIT	LINE TOTAL
4	Plastic Silverware (box of 100)	15	\$8.75	\$131.25
5	Napkins (box of 250)	18	\$2.59	
6	Plates (box of 50)	9	\$14.25	
7	Plastic Cups (box of 100)	12	\$2.99	
8				

Copying formulas with the fill handle

Formulas can also be **copied** to adjacent cells with the **fill handle**, which can save a lot of time and effort if you need to perform the **same calculation** multiple times in a worksheet. The **fill handle** is the small square at the bottom-right corner of the selected cell(s).

1. Select the cell containing the formula you want to copy. Click and drag the **fill handle** over the cells you want to fill.

D4				=B4*C4
	B	C	D	E
2				
3	QUANTITY	PRICE PER UNIT	LINE TOTAL	
4	15	\$8.75	\$131.25	
5	18	\$2.59		
6	9	\$14.25		
7	12	\$2.99		
8				
9				

2. After you release the mouse, the formula will be copied to the selected cells.

D4				=B4*C4
	B	C	D	E
2				
3	QUANTITY	PRICE PER UNIT	LINE TOTAL	
4	15	\$8.75	\$131.25	
5	18	\$2.59	\$46.62	
6	9	\$14.25	\$128.25	
7	12	\$2.99	\$35.88	
8				
9				

To edit a formula:

Sometimes you may want to modify an existing formula. In the example below, we've entered an incorrect cell address in our formula, so we'll need to correct it.

1. Select the **cell** containing the formula you want to edit. In our example, we'll select cell **D12**.

D12				=D9+D11
	B	C	D	
2				
3	QUANTITY	PRICE PER UNIT	LINE TOTAL	
4	15	\$8.75	\$131.25	
5	18	\$2.59	\$46.62	
6	9	\$14.25	\$128.25	
7	12	\$2.99	\$35.88	
8				
9				
10		JUNE BUDGET	\$1,200	
11		JULY BUDGET	\$1,500	
12		TOTAL	+	\$1,500

2. Click the **formula bar** to edit the formula. You can also **double-click** the cell to view and edit the formula directly within the cell.

D12			=D9+D11
	B	C	D
2			
3	QUANTITY	PRICE PER UNIT	LINE TOTAL
4	15	\$8.75	\$131.25
5	18	\$2.59	\$46.62
6	9	\$14.25	\$128.25
7	12	\$2.99	\$35.88
8			
9			
10		JUNE BUDGET	\$1,200
11		JULY BUDGET	\$1,500
12		TOTAL	\$1,500

3. A **border** will appear around any referenced cells. In our example, we'll change the first part of the formula to reference cell **D10** instead of cell **D9**.

SUM			=D9+D11
	B	C	D
2			
3	QUANTITY	PRICE PER UNIT	LINE TOTAL
4	15	\$8.75	\$131.25
5	18	\$2.59	\$46.62
6	9	\$14.25	\$128.25
7	12	\$2.99	\$35.88
8			
9			
10		JUNE BUDGET	\$1,200
11		JULY BUDGET	\$1,500
12		TOTAL	=D9+D11

4. When you're finished, press **Enter** on your keyboard or select the **Enter** command in the formula bar.

SUM			
=D10+D11			
	B	C	D
2			
3	QUANTITY	PRICE PER UNIT	LINE TOTAL
4	15	\$8.75	\$131.25
5	18	\$2.59	\$46.62
6	9	\$14.25	\$128.25
7	12	\$2.99	\$35.88
8			
9			
10		JUNE BUDGET	\$1,200
11		JULY BUDGET	\$1,500
12		TOTAL	=D10+D11

5. The formula will be **updated**, and the **new value** will be displayed in the cell.

D12			
=D10+D11			
	B	C	D
2			
3	QUANTITY	PRICE PER UNIT	LINE TOTAL
4	15	\$8.75	\$131.25
5	18	\$2.59	\$46.62
6	9	\$14.25	\$128.25
7	12	\$2.99	\$35.88
8			
9			
10		JUNE BUDGET	\$1,200
11		JULY BUDGET	\$1,500
12		TOTAL	\$2,700