Add numbers like a champ

Here are some ways to add up numbers in Excel:

1. Select the yellow cell under the amounts for fruit.
2. Type **=SUM(D4:D7)**, and then press enter. When you're done, you'll see the result of 170.
3. Here's another way to add, using a shortcut key. Select the yellow cell under the amounts for meat.
4. Press Alt + = first. Then, press **Enter**.
5. Now add only the numbers over 50. Select the last yellow cell. Type **=SUMIF(D11:D15,">50")** and then press **Enter**. The result is 100.

Dive down for more detail

Next step

Fruit	Amount
Apples	50
Oranges	20
Bananas	60
Lemons	40
	170

Meat	Amount
Beef	50
Chicken	30
Pork	10
Fish	50
	140

Item	Amount
Bread	50
Donuts	100
Cookies	40
Cakes	50
Pies	20
	100

Item	Amount
Bread	50
Donuts	100
Cookies	40
Cakes	50
Pies	20
	0

EXTRA CREDIT

Try adding another SUMIF formula here, but add amounts that are *less than 100*. The result should be 160.

More about the SUM function

In some of the above tips, we taught you how to use the SUM function. Here are more details about it. Double-click a yellow cell on the right, and then read along with the text below.

If the SUM function could talk, it would say this:

Sum up the following: ...the values in cells D38, D39, D40, and D41.

```
=SUM(D38:D41)
```

Here's another way it can be used:

Sum the following: ...the value in cell D48... ...the values in cells G48, G49, G50, and G51... ...and 100.

```
=SUM(D48,G48:G51,100)
```

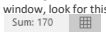
The formula above uses the following:

- A single **cell reference**, which is the "address" or "name" of a cell. D48 is the single cell reference in the formula above.
- A **range of cells**, which is a series of cells starting at one cell and ending at another. G48:G51 is the range of cells in the formula.
- A **constant**. The constant in this formula is the number 100.

Fruit	Amount
Apples	50
Oranges	20
Bananas	60
Lemons	40
	170

CHECK THIS OUT

Select these cells. Then in the lower-right corner of the Excel window, look for this:



That's just another way to quickly find a total.

Item	Amount
Table	20

Item	Amount
Cars	20
Trucks	10
Bikes	10
Skates	40

Total:
200

IMPORTANT DETAIL

Double-click this cell. You'll notice the *100* toward the end. Although it's possible to put numbers in a formula like this, we don't recommend it unless it's absolutely necessary. This is known as a **constant**, and it's easy to forget that it's there. We recommend referring to another cell instead, like cell D16. That way it's easily seen and not hidden inside a formula.

More about the SUMIF function

We also showed you the SUMIF function at the top of this sheet. The SUMIF function sums up totals based on a criterion. If the SUMIF function could talk, it would say this:

Sum up some values based on this criterion: ....Look through these cells... ...and if the value is greater than 50, sum it up.

```
=SUMIF(D73:D77,">50")
```

NOTE: If you find you are making a lot of SUMIF formulas, you might find that a PivotTable is a better solution. See the PivotTable worksheet for more information.

Item	Amount
Bread	50
Donuts	100
Cookies	40
Cakes	50
Pies	20
	100

Item	Amount
Bread	50
Donuts	100
Cookies	40
Cakes	50
Pies	20
	200

GOOD TO KNOW

Double-click this cell and you'll see that the formula is different. Specifically, the sum criteria is ">=50" which means greater than or equal to 50. There are other operators you can use like "<=50" which is *less than or equal to 50*. And there's "<>50" which is *not equals 50*.

More information on the web

- All about the SUM function
- All about the SUMIF function
- Use Excel as your calculator
- Free Excel training online

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Next step

Save time by filling cells automatically

Here's how to use the fill handle in Excel:

1. Click the cell with the number **100**.
2. Rest your cursor on the lower-right corner of the cell until it becomes a cross:

3. Click the cross and drag down three cells. Excel will automatically fill the cells with the totals: **110**, **120**, and **130**. People call this "filling down."
4. Click the yellow cell with **200**, and fill again but this time drag the fill handle to the *right* to fill the cells. This is known as "filling right."

Dive down for more detail

Next step

This:	Plus this:	Equals:	Plus this:	Equals:
50	50	100	75	175
50	60	110	75	185
50	70	120	75	195
50	80	130	75	205

EXTRA CREDIT

Click and drag to select these four cells, and then press CTRL+D. That's the shortcut key for filling down. Can you guess what the shortcut for filling *right* is?

This:	Plus this:	Equals:	Plus this:	Equals:
50	50	100	75	175
50	60	110	75	185
50	70	120	75	195
50	80	130	75	205
200	260	460	300	760

Use the fill handle to copy cells

Sometimes you don't need the numbers to change as you fill. Instead, you just want to copy values to other adjacent cells. Here's how to do that:

1. Click the cell with the word **Produce**. Rest your cursor on the lower-right corner of the cell until it becomes a cross, then drag down three cells.
2. Now select the cell with the word **Fruit**. Rest your cursor on the lower- right corner again, and when you get the cross, double-click. That's another way to fill down in case you ever need to fill a long column.

Dept.	Category	Product	Count
Produce	**Fruit**	Apple	100
		Orange	200
		Banana	50
		Pears	100

Fill a series

Excel can automatically fill some cells based on a series. For example, you can type Jan in one cell, and then fill the other cells with Feb, Mar, etc.

1. Click the cell with the word **Jan**.
2. Rest your cursor on the lower-right corner of the cell until it becomes a cross, then drag right two cells. Excel detects a series, and fills in **Feb** and **Mar** for you.
3. Now select the cell with **Week 1**.
4. Rest your cursor on the lower-right corner again, and when you get the cross, *double-click it*.

	Jan		
Week 1	35	44	79
	74	64	56
	82	50	83
	90	22	89

Qrtr 1

IMPORTANT DETAIL

Select this cell, and then drag the fill handle down 3 cells. After that, click this button: This is the **AutoFill Options** button, and it lets you change the fill immediately after. Choose another option like Copy cells or Fill formatting only. You never know when these might come in handy someday.

Intervals	
15	**30**

EXPERIMENT

Select these two cells, and then drag the fill handle to the right. Excel fills the series in increments of 15. Try changing 15 and 30 to other values, like 1 and 1.8. Or, Mon and Wed. Or, January and March. And then fill to the right again... see what happens!

More information on the web

- Fill data automatically in worksheet cells
- Fill a formula down into adjacent cells

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Next step

Data stuffed into one column? Split it.

1. In the cells under **First name**, type the first names that are in the Email column: *Nancy*, *Andy*, and so on.
2. When you see the faded list of suggestions, press **Enter** right away.

This list of suggestions is called **Flash Fill**. Flash Fill detects when you type a consistent pattern, and provides suggestions to fill the cells with. When you see the faded list, that's your cue to press Enter.

3. Try another way to Flash Fill: Click the cell with Smith.
4. Click **Home** > **Fill** > **Flash Fill**. Now the last names are in their own column.

Dive down for more detail

Next step

Email	First name	Last name
Nancy.Smith@contoso.com	Nancy	Smith
Andy.North@fabrikam.com	Andy	North
Jan.Kotas@relecloud.com	Jan	Kotas
Mariva.Jones@contoso.com	Mariva	Jones
Yvonne.McKay@fabrikam.com	Yvonne	McKay

GOOD TO KNOW

CTRL+E is the shortcut for Flash Fill.

Split a column based on delimiters

Flash Fill is pretty handy. But if you want to split data into more than one column all at once, then it's not the best tool for the job. Try **Text to Columns** in this situation:

1. Click and drag to select the cells from **Nancy** all the way down to **Yvonne**.
2. On the **Data** tab, click **Text to Columns**. Make sure that **Delimited** is selected, and then click **Next**.
3. Under **Delimiters**, make sure that **Comma** is the only checkbox selected, and then click **Next**.
4. Click the **General** option.
5. Finally, click inside the **Destination** box and type **D32**. Then click **Finish**.

Data	First name	Last name	Company name
Nancy	Smith	Contoso Ltd.	
Andy	North	Fabrikam Inc.	
Jan	Kotas	Relecloud	
Marilya	Jones	Contoso Ltd.	
Steven	Thorpe	Relecloud	
Michael	Neipper	Fabrikam Inc.	
Robert	Zare	Relecloud	
Yvonne	McKay	Contoso Ltd.	

WORTH EXPLORING

There's another way of working with data. You can query an external source, and you can split the data that comes from the source. You do that once, and the data is refreshable and easy to work with from that moment on. Curious? Click the **Data** tab, and then explore the options in the **Get & Transform** area. Or see the link at the bottom of this sheet.

Split a column with formulas

You might want to write a formula to split data. This way, if the original data gets updated, then the split data will get updated as well. This is more advanced. But it is possible when using a handful of functions: LEFT, RIGHT, FIND, and LEN. For more information on each of these functions, see the links at the bottom of this sheet. But if you're curious, here's how we split cell C56. Make sure to follow along with the diagram on the right as you go through these steps:

1. Double-click the yellow cell with **Yvonne**. We used the LEFT function to extract characters from the left side of cell C56. And to specify the number of characters to extract, we used the FIND function. Read the **How it works** diagram, and then press ESC when you're done.
2. Then we created a **[Helper column]**. This was just to "help" extract the other text in the cell. It's meant to be temporary and something one could always hide later.
3. Double-click **Francis McKay** in the [Helper column]. You'll see that we used the RIGHT, LEN, and FIND functions to extract characters from the first space, up until the end of the cell.
4. Double-click **Francis**. Here we used almost the same formula as in step 1, but instead of extracting characters from C56, it extracts them from F56.
5. Double-click **McKay**. This is the same formula as in step 3, but it extracts characters from F56 instead of cell C56.

Name inside one cell
Yvonne Francis McKay

First name	[Helper column]	Middle name	Last name
Yvonne	Francis McKay	Francis	McKay

HOW IT WORKS:

Extract characters from the left side of... | ...this cell... | ...and extract this many characters. To specify the number of characters, use the FIND function...

```
=LEFT(C56,FIND(" ",C56)-1)
```

...and find the character position number of... | ... the first space... | ...in this cell. | ...then subtract 1 to exclude the space itself.

HOW IT WORKS:

Extract characters from the right side of... | ...this cell... | ...and extract this many characters. To specify the number of characters, use the LEN function...

```
=RIGHT(C56,LEN(C56)-FIND(" ",C56))
```

...and get the count of characters (character length) of... | ...this cell... | ...and subtract this number: | Find the character position number of... | ...the first space. .. | ...in this cell.

More information on the web

- Split text into different columns
- All about Get & Transform
- All about the LEFT function
- All about the RIGHT function
- All about the FIND function
- All about the LEN function

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Next step