GETTING AROUND EXCEL

Excel, like other spreadsheets, is used by reporters to make the same computations over and over again on a whole bunch of numbers.

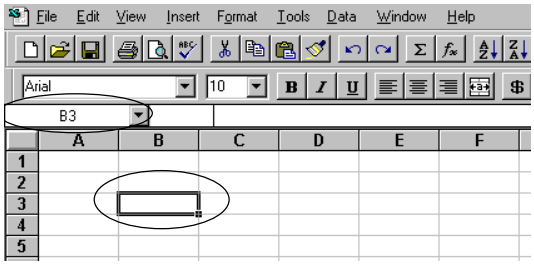
It lets you sort small lists in different ways, produce lists for publication, clean up files you find on the Internet and organize virtually anything that come in list form, including notes and chronologies.

Some reporters bristle at typing in, say, 30 numbers into a spreadsheet. You shouldn't. If you want to calculate the numbers by hand, you'll end up typing them into a calculator far more times.

THE EXCEL GRID - CELL ADDRESSES

When you first start up Excel, here's how it looks. Across the top are letters, and down the side are numbers.

Just like on a map, you refer to each square or cell by its intersection of column and row:



B3 is the cell that's currently active. You can tell because its address is shown on the upper left corner, and the cell itself is outlined with a black border, which has a little knob on the lower right corner.

EXCEL MOUSE SHAPES

Here are the four main mouse shapes you'll see:

- The Big Fat White Plus Sign, or BFWPS:

You can never get into trouble with this symbol. Whenever you see it, you can select a cell or a group of cells.

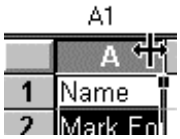
- The Copy Tool, or the thin cross:

When you see this, you'll copy anything that's selected in whichever direction you drag. This can be good or bad. Normally, you only copy formulas.

- The Evil Arrow:

This will actually *move* whatever you have selected, sometimes directly on top of something else. Don't use this most of the time.

- The Column- and Row-adjuster



You'll only see this when your mouse is hovering in the gray, title, area of either a row or column. It widens or narrows a column, or lengthens or shortens a row.

SELECTING CELLS

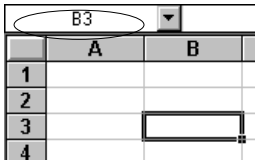
Excel acts on cells you have selected.

If you begin typing, you'll start entering information into the currently selected cell, even if there's already something in it. Use the BFWPS when selecting, or you might wreck your spreadsheet:

To select a cell:

Hover the BFWPS over the cell you want to select, and click once on the left mouse button. Until you become accustomed to the screen, check the formula bar to make sure you've selected what you thought you did.

You'll get used to it after a while, and won't have to check anymore:



B3 is selected.

To select a group of cells and act on them all at once:

Hover the BFWPS over one corner. Click once and drag to the diagonal corner.

The entire area will be shaded in, except the cell that's currently active. That cell will still look normal. It's the one that you would type over if you began typing now.

(While you're selecting, Excel will momentarily show you how many rows and columns you've selected, as in the 9R x 4C above. When you stop, it will show you the currently selected cell address (A1) again).

To select an entire column:

Hover your BFWPS over the title letter of the column and click once on the left mouse button

To select an entire row:

Hover your BFWPS over the title row number (all the way on the left), and click once. The title row number and the line will be highlighted:

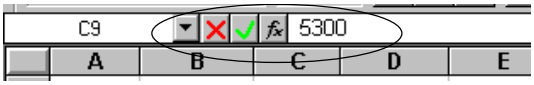
ENTERING DATA

Select the cell you want to enter data in, and start typing. Then lock in entry by

- Pressing the Enter key
- Selecting a different cell with the mouse, or
- Using the arrow keys on your keyboard to exit the cell.

You can't do a lot of things while Excel thinks you're in the process of typing.

Excel gives you some visual clues that you're in the process of typing:

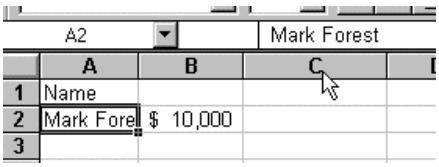


If you see these symbols in your *formula bar*, Excel thinks you're editing.

Entering words

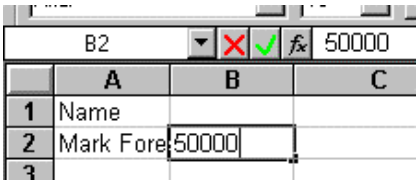
Just type them.

Don't worry if the cell isn't wide enough to show your entire entry. It might look cut off, or it might spill over into the adjacent cell. Your formula bar shows what you've actually typed.



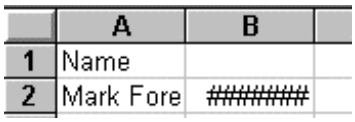
Entering numbers

Type numbers without any dollar signs or commas.



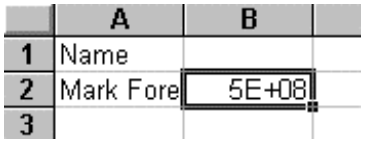
Although Excel is pretty forgiving if you forget, it's a good habit to get in to. Other software programs may not recognize numbers that contain these special characters. They'll think they're words.

Don't worry if the number appears as a bunch of hashmarks (#):



Excel is saying, "I don't have enough room to show you all of the digits you've requested. I can't figure out whether to chop off the first or the last. So I'll show you garbage instead." You'll widen the column to show all the digits. Again, your formula bar will show you what you've typed.

If it's a very big or very small number, you might see something like this instead:



because scientific notation takes up lots less space. Again, don't worry. You can fix this later.

FIXING MISTAKES

Start over while you're editing:

If you realize halfway through that you made a mistake and want to start over, press the Esc key on your keyboard (usually in the upper left corner). This will take you out of editing mode without locking in your change.

Correct a few characters:

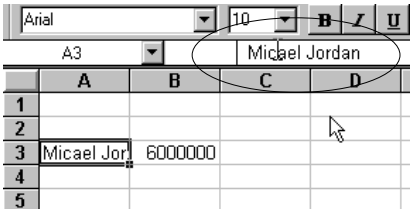
Press the Backspace key (not the left-arrow key) on your keyboard to wipe out the characters or numbers to the left of your cursor. Press the Del key to wipe out characters to the right of your cursor.

Correct an entry after you've locked it in

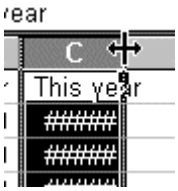
Select the cell with the mistake.

To retype it, just start typing. Excel will start you over.

If you just want to correct a few characters, press the F2 key on your keyboard (at the very top), or click in the formula bar where the mistake is:



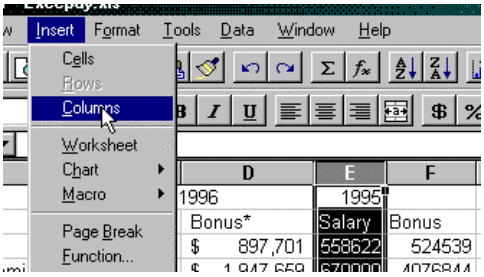
CHANGING COLUMN WIDTHS



As with most things in Excel, there are a number of ways to change a column width. One is to use mouse to drag the border where you want it:

INSERTING COLUMNS AND ROWS

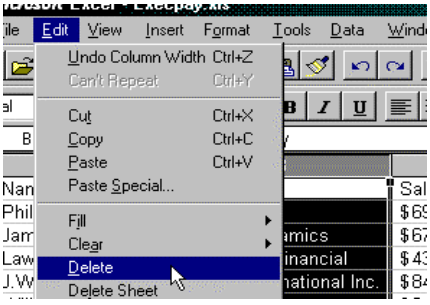
To insert a blank column in your spreadsheet and adjust all of your formulas, select the column to the right of the one you want. Then use the Insert, Columns menu item to move everything to the right:



Insert a row by selecting the row below your new one, and use the same menu item, inserting Rows instead.

DELETING COLUMNS AND ROWS

To delete a column, select it, then select the menu item, Edit, Delete.



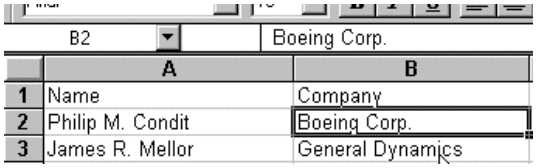
This isn't the same thing as pressing the Del key, and isn't the same thing as using the

menu item Edit, Clear. Use the same process to delete a row after selecting it.

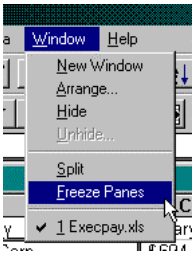
LOCKING IN HEADINGS

As your spreadsheets grow, you'll want to see the first row or two whenever you page through your data, preserving their headings. The same thing happens as you create more and more columns – You'll want to see a column to show you what's in each row.

Select the cell immediately below the row you want to lock in. Select the cell immediately to the right of the column you want to lock in. So for a combination, you'd select cell B2 to lock down row 1 and column A.



Choose the menu item Window, Freeze Panes to lock in the headings.



Choose it again to un-freeze the panes and start over if you need to.

TIPS AND TRAPS

Slow down!

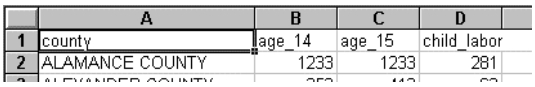
Pressing lots of buttons as you try to recover will often just get you into more trouble. So will repeating your last mistake. Try to take your hands off the mouse and the keyboard, and think about what's gone wrong.

Type any totals you know

You'll learn how to calculate totals automatically. But sometimes it's easier to check totals than every individual entry. So use any information your sources have given you as an easy check on your data entry.

Type short titles directly above your data

Keeping the titles short means you never have to widen a column just to find out what it is. Keeping titles in the cell directly above the data means Excel will recognize them as titles in later work:



Make numbers easier to read

You can format numbers in literally dozens of ways. Two of the most common are: Comma Format, and Currency Format. Excel provides buttons for you to use:

Comma (the , symbol) puts commas in between the thousands, making pure numbers easier to see. It often also adds two decimal points. Get rid of them by selecting the cells with the extra decimal points, and pressing the button with an arrow pointing to one .0 above.

Same with dollar (the $ symbol).

Having trouble with the mouse? Use the keyboard.

Some people find all this clicking annoying, difficult or just plain slow. Get to know keyboard shortcuts instead. We don't have room to go through all of them, but go into Excel's Help system, and in the Index look for "Keyboard shortcuts."

THE POWER OF EXCEL: FORMULAS

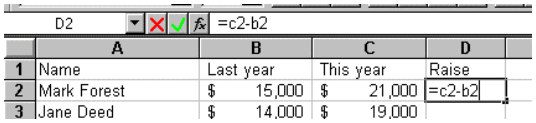
Excel's power comes from its ability to let you use data you've entered once by simply referring to its location on the spreadsheet, not its value.

You'll do this by entering formulas and copying them. Get good at this, and you'll rarely have to calculate anything by hand again.

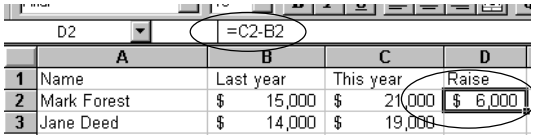
ENTERING A FORMULA: THE = SIGN

To enter a formula, announce to Excel that one is about to come with the equal sign. The easiest formulas are simple arithmetic:

+ is plus / is divided by
- is minus * is times (multiplication)

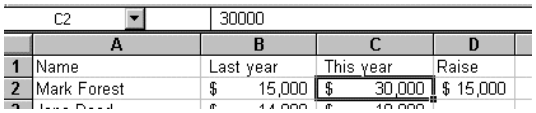


Press Enter to lock in the formula:



The formula is still in the cell, but you see the answer.

Notice that you type the cell address (c2) not the value ($21,000) to create the formula. That means if you change the original value, the calculation will change also. That's because Excel doesn't care what number it uses, only its location on the spreadsheet:



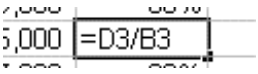
COPYING A FORMULA

Not only will Excel help you when you find a mistake. Its biggest power is to repeat your instructions hundreds of times.

First select the cell you want to copy. Now:

- Drag with the copy tool. Make sure you haven't got the Evil Arrow instead.
  or
- Double-click on the copy tool (if the column to the left is filled out)
  or
- Copy using the menu or one of many keyboard shortcuts, then paste using the same

Note the reason this works: Excel looks at your original formula, and says, "Hey – you're going down a row. I bet you want me to adjust the formula so it refers to the row below the one you started on."



This also works going across. Instead of changing the row element (the number), Excel adjusts the column element (the letter.)

THE PERCENT CHANGE

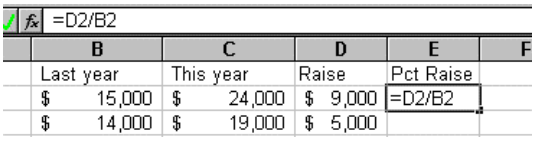
Reporters think Excel will calculate percent changes automatically. It won't. But you'll only have to remember how to make one once. Excel will copy that formula for you over and over.

Get it down now:

Percent change = (new - old) / old

We usually compute the difference (new - old) anyway, so it's often just:

Percent change = difference / original value:



After locking in the formula and copying:

	A	B	C	D	E
1	Name	Last year	This year	Raise	Pct Raise
2	Mark Forest	$ 15,000	$ 24,000	$ 9,000	60%
3	Jane Deed	$ 14,000	$ 19,000	$ 5,000	36%

TOTALS, AVERAGES AND MEDIANS

Excel recognizes that you often want to summarize data. It has about 500 built-in ways to work with information you've entered.

Most of those you'll use at first are simple summary functions for totaling (summing) or averaging of some kind. You tell Excel to calculate a function over a *range* of cells:

	A	B
1	Name	Last year
2	Mark Forest	$ 15,000
3	Jane Deed	$ 14,000
4	Mary Hill	$ 22,000
5	Joe Smith	$ 30,000
6	Ed Powell	$ 25,000
7	Tom Brown	$ 40,000
8	Julia Jones	$ 50,000
9	Dee Dale	$ 45,000
10		
11	Total	=sum(b2:b9)

=SUM(start:end)
says, Sum everything beginning with the cell I say is the start (say, B2) through (the colon) ending at the end, (say, B9).

11	Total	$ 241,000

You can also use:

=average(start:finish)
=median(start:finish)

12	Average	$ 30,125
13	Median	=median(b2:b9)

After selecting all three summary statistics, and copying them to the right:

10			
11	Total	$ 241,000	$ 298,000
12	Average	$ 30,125	$ 37,250
13	Median	$ 27,500	$ 34,500
14			

ANCHORING TOTALS: PERCENT OF TOTAL

Sometimes you don't want Excel to adjust formulas for you. Consider the formula for a "percent of total":

	B	C	D
	Last year	This year	Pct Total
	$ 15,000	$ 24,000	=c2/c11
	$ 14,000	$ 19,000	
	$ 22,000	$ 29,000	
	$ 30,000	$ 39,000	
	$ 25,000	$ 30,000	
	$ 40,000	$ 47,000	
	$ 50,000	$ 58,000	
	$ 45,000	$ 52,000	
	$ 241,000	$ 298,000	

When you copy, this is what happens:

=C5/C14

C	D
year	Pct Total
24,000	8%
19,000	51%
29,000	84%
39,000	#DIV/0!
30,000	#DIV/0!

because Excel has adjusted both the numerator and the denominator:

Anchor the denominators with stick-pins you make with dollar signs:

=C2/C11

C	D
year	Pct Total
24,000	8%

Now it will copy correctly.

FREQUENTLY ASKED QUESTIONS

Excel won't let me copy my formula.

Lock in the formula first by pressing the Enter key, or selecting any other formula. Select it again, and then copy.

I want to use the sum button instead.

Go ahead. But check what it does carefully. Typing in the formula is safer.

Should I use the average or median?

It depends. Averages are easier to explain. But when they're very different, you're probably safer to use the median. Medians are almost always used for salaries, home prices and other values measured in dollars.

My percents look like small numbers with decimal points

They're probably not formatted as percentages. Select the numbers and click the % button on your toolbar.

SORTING LISTS WITH EXCEL

Sorting lists is one of the most common things you'll do with a spreadsheet.

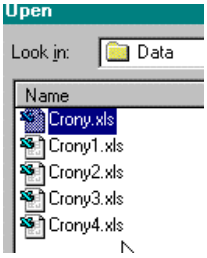
In fact, if you master simple formulas, sorting and importing data from the Internet, you may never need to learn fancy spreadsheet techniques.

But sorting is the most dangerous thing you'll do with a spreadsheet. Although Excel has become far more forgiving in recent versions, it's still a good idea to get into good habits. They may save you someday.

SAVE BEFORE SORTING

Many reporters save each incarnation of a spreadsheet while they're working on stories.

Here's what their choices of files might look like:

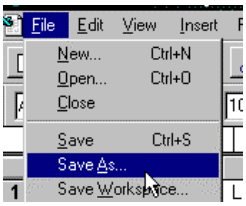


Every time they do something they think is a little difficult, they save the file under a new, sequential name.

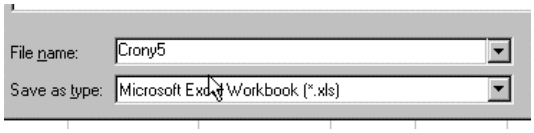
Saving like this means that, on deadline, you can always get back to the last worksheet you knew was correct. You can always clean out everything but the first and last version after the story's run or aired.

It's particularly important to save a new version of your spreadsheet just before you sort. Do it every time, and you'll never get into too much trouble.

To save a new version, choose the menu item File, Save As,

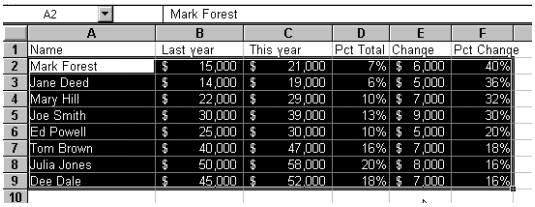


and type in the new name in the box:



SORTING THE NICAR WAY

Don't use shortcuts. Instead, select the entire square you want to sort, including any names but excluding column titles:



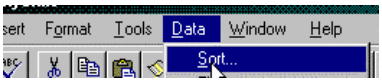
	A	B	C	D	E	F
1	Name	Last year	This year	Pct Total	Change	Pct Change
2	Mark Forest	$ 15,000	$ 21,000	7%	$ 6,000	40%
3	Jane Deed	$ 14,000	$ 19,000	6%	$ 5,000	36%
4	Mary Hill	$ 22,000	$ 29,000	10%	$ 7,000	32%
5	Joe Smith	$ 30,000	$ 39,000	13%	$ 9,000	30%
6	Ed Powell	$ 25,000	$ 30,000	10%	$ 5,000	20%
7	Tom Brown	$ 40,000	$ 47,000	16%	$ 7,000	18%
8	Julia Jones	$ 50,000	$ 58,000	20%	$ 8,000	16%
9	Dee Dale	$ 45,000	$ 52,000	18%	$ 7,000	16%
10						

This ensures that Excel keeps the rows together. (It usually will anyway, but every once in a while it will screw up – and ruin your spreadsheet in the process.)

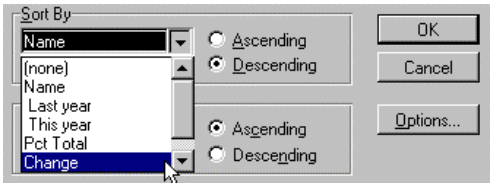
Exclude the column headings. You don't want them mixed in with the numbers.

SORT THE ROWS

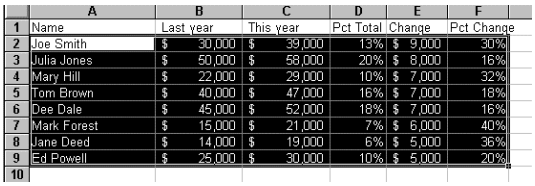
Using the menu, choose Data, Sort:



and choose the column you want to sort by:



Click once on the column name to lock it into the Sort By box. You'll usually sort in Descending order, since you want to see the largest value first.



	A	B	C	D	E	F
1	Name	Last year	This year	Pct Total	Change	Pct Change
2	Joe Smith	$ 30,000	$ 39,000	13%	$ 9,000	30%
3	Julia Jones	$ 50,000	$ 58,000	20%	$ 8,000	16%
4	Mary Hill	$ 22,000	$ 29,000	10%	$ 7,000	32%
5	Tom Brown	$ 40,000	$ 47,000	16%	$ 7,000	18%
6	Dee Dale	$ 45,000	$ 52,000	18%	$ 7,000	16%
7	Mark Forest	$ 15,000	$ 21,000	7%	$ 6,000	40%
8	Jane Deed	$ 14,000	$ 19,000	6%	$ 5,000	36%
9	Ed Powell	$ 25,000	$ 30,000	10%	$ 5,000	20%
10						

RECOVERING FROM MISTAKES:

If you get something dumb like this:

	A	B	C	D	E	F
1	Name	Last year	This year	Pct Total	Change	Pct Change
2	Mark Forest	$ 15,000	$ 21,000	13%	$ 6,000	40%
3	Mark Forest	$ 15,000	$ 21,000	13%	$ 6,000	40%
4	Mark Forest	$ 15,000	$ 21,000	13%	$ 6,000	40%
5	Mark Forest	$ 15,000	$ 21,000	13%	$ 6,000	40%

You copied instead of selected.

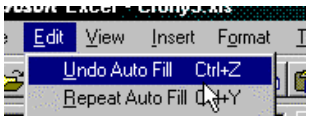
If it has crazy numbers like this:

	A	B	C	D	E	F
1	Name	Last year	This year	Pct Total	Change	Pct Change
2	Mark Forest	$ 15,000	$ 58,000	20%	$ 43,000	287%
3	Jane Deed	$ 14,000	$ 52,000	18%	$ 38,000	271%
4	Mary Hill	$ 22,000	$ 47,000	16%	$ 25,000	114%
5	Joe Smith	$ 30,000	$ 39,000	13%	$ 9,000	30%
6	Ed Powell	$ 25,000	$ 30,000	10%	$ 5,000	20%
7	Tom Brown	$ 40,000	$ 29,000	10%	$(11,000)	-28%
8	Julia Jones	$ 50,000	$ 21,000	7%	$(29,000)	-58%
9	Dee Dale	$ 45,000	$ 19,000	6%	$(26,000)	-58%

You sorted one column without sorting the rest of each row along with it.

Using the Undo command

In some versions of Excel, you only have one opportunity to recover from mistakes. If you catch it quickly enough, selecting the Edit menu item will give you an option that says, "Undo AutoFill" or "Undo Sort":

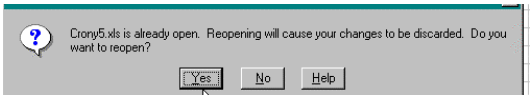


If it doesn't work, then you have to revert to your most recently saved version.

Recovering a previously saved version

Slow down. Don't panic. You saved your spreadsheet before you sorted. To recover a previous version, you just have to re-open it.

Choose the menu item, File, Open, and find the correct version. Select it. When you get this message



Say Yes. It will bring you back to that version.

TIPS AND TRAPS

Set up your spreadsheet with the expectation that you'll sort it.

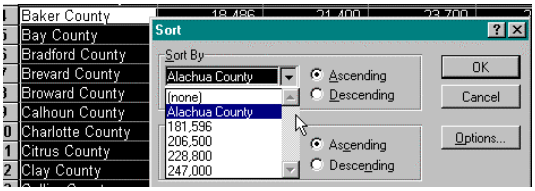
- Make sure you can return to the original sort order. Sometimes you'll have to put a column all the way at the left and enter row numbers.
- Use short titles directly above your data. With this, Excel will show you the names of your columns rather than Column A, Column B, etc.
- Put totals and other summaries at the bottom of your main data, separated with a blank line.

9	Ed Powell	$ 25,000	$ 30,000	10%	$ 5,000	20%
10						
11	Total	$ 241,000	$ 295,000		$ 54,000	22%

  Otherwise you risk mixing them in with the details.

If the selection drops down one line when you start sorting:

This is one of those inconsistent problems. Excel looked at the row just above your sort and tried to figure out if it was a heading. If it guessed incorrectly, it might drop down one row and show you something like this:



Click the No Header Row at the bottom of the dialog box and choose the column letter instead of a word:

FORMATTING WORKSHEETS IN EXCEL

UNDERSTANDING FORMATS

An unformatted spreadsheet looks like a mess. There are no borders separating one area from another. Numbers look like jumbles of, well, numbers. And words get chopped off before you can read them all.

Here's an unformatted worksheet:

	A	B	C	D	E	F	G	H
1	ZIP	TOTAL PC	HOUSEHC	WHITE W	BLACK W	MEDIAN IN	STUB.GE	Pct women
2	63005	7730	2259	1653	64	92859	ZIP Code E	0.222122
3	63010	29205	10138	5123	0	34848	ZIP Code E	0.175415
4	63011	36487	12673	7802	82	56109	St. Louis C	0.216077
5	63012	7681	2349	1330	6	40384	Jefferson C	0.173936
6	63013	418	145	92	0	32917	Franklin C	0.220096
7	63014	1105	357	170	0	25509	ZIP Code E	0.153846
8	63015	850	242	159	0	38750	Franklin C	0.187059
9	63016	7187	2337	1222	12	36090	ZIP Code E	0.171698

There are different attributes of a cell that you can change to make this worksheet easier to read:

- Change the *number* formats, showing commas, decimal points, percentages or dollar signs.
- Change *borders and shading* to emphasize headings or values you care about.
- Change the *row and column* sizes to show more of the cell.

When you make these changes, however, Excel still sees your original data without the special formatting. That's good. Otherwise it wouldn't know how to treat the data.

STRATEGY FOR FORMATTING

Editors often don't really know what you're doing in front of the computer. The last thing they appreciate, then, is your spending lots of time coming up with a pretty spreadsheet.

Even worse, the nicer a spreadsheet looks, the more it takes on the aura of an official report. If you think about it, these are just like the reports your sources give you. They'll look as accurate as well.

So you might consider just *how* pretty you want your spreadsheet to look. Certainly, you ought to be able to read it. But you may not want it to look perfect. It's not worth the time and it may mislead if you haven't done the checking to be sure it's right.

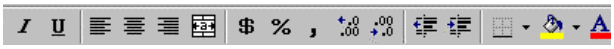
In summary:

- Save your formatting work for the moments just before you print the spreadsheet. Formatting doesn't stick with the contents of cells, only their position in the spreadsheet. So sorting, changing column widths and other work means you'll have to repeat your formatting work.
- Don't spend a lot of time on formatting -- just the amount of time you need to read an efficient printout.
- Be careful of the message a wonderfully formatted spreadsheet sends: "This is right!" Be sure you've checked it for substance.

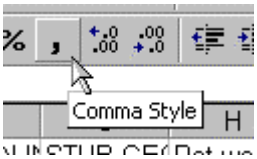
That said, here is how to use the formatting options in Excel.

SPEED FORMATTING BUTTONS

To look at most of your formatting options, you'll want to add the "Formatting Toolbar" to your screen. Under View, Toolbars, put a check-mark next to "Formatting".



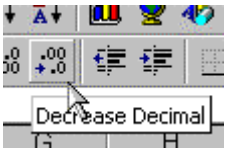
This toolbar will act on any selected cells. The key speed buttons help you format numbers the way you'd like to see them.



The comma symbol, for example, puts commas between the thousands and rounds to two decimal places:

	B	C	D	
	TOTAL POI	HOUSEHO	WHITE W	BL
	7,730.00	2,259.00	1,653.00	
	29,205.00	10,138.00	5,123.00	

Then, if you select the columns again, you can reduce the decimal places with the button two over from the comma style button:



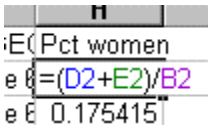
Play around with the number formatting buttons, and you'll see how they change.

	A	B	C	
1	ZIP	TOTAL POP	HOUSEHOLDS	WI
2	63005	7,730	2,259	
3	63010	29,205	10,138	
4	63011	36,487	12,673	

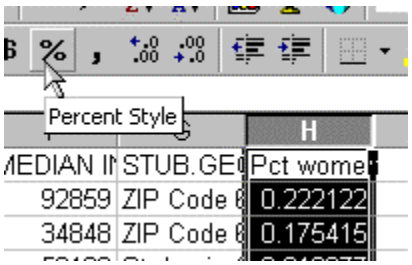
PERCENTAGES

One of the more disconcerting parts of Excel is working with percentages.

When you first figure them out, you may recall that we skip a step you learned in grade school: Multiplying by 100, or moving the decimal point two places to the right.



The resulting numbers are usually less than 1. But formatting them as percents means you'll see them the way we're used to seeing them:

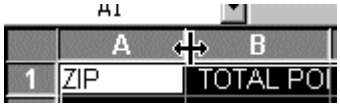


COLUMN WIDTHS

If you follow good spreadsheet design practice, then using automatic column widths will often give you the best view of your data.

So long as none of your cells contain a lot of words, you can:

- Select your entire spreadsheet, then



- Double-click on the border between cells A and B in the title area.

THE FORMAT CELLS MENU

Once you have played around with formatting, you'll want more control over the way your spreadsheet looks.

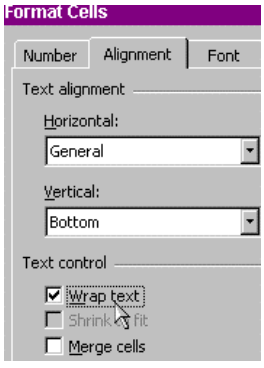
That's where the Format Cells menu comes in.

Under Format, Cells, you'll see a whole range of items that might make your spreadsheet look better.

The Number formats are all of your choices to format numbers. The buttons just list the most common ones.

Row height, wrapping and alignment

The Alignment is one tab that can help many spreadsheets save room while preserving good spreadsheet design.



If you have a lot of text you in your cells, you'll often find that you can't see it all when you print. To make the cells as tall as they need to be when they're printed, you can select your worksheet, make the cells as wide as you'd like them, then choose "Wrap Text" from the alignment window.

C	D	E	F
HOUSEHOLDS	WHITE WOMEN	BLACK WOMEN	MEDI INCOM
2,259	1,653	64	$ 92

Weird Tip #47:

Avoid the "Merge Cells" option in this window. It will just eliminate your ability to delete, move or sort columns and rows.

It combines cells and fixes them in the page. Instead, if you want a title to span across rows, use the Horizontal and Vertical alignment options to "Center across cells".

Autoformats

Sometimes you can select the filled-in area of your worksheet, then let Excel choose a good format for you.

Be careful not to select the entire worksheet. If you do, and you use the autoformat, you'll find your spreadsheet grows to about 2 megabytes. The reason is that Excel is trying to format all 65,000 row, not just the filled in area.

Under Format, choose Autoformat. Pick a good one out of the list, and hit OK:

	A	B	C	D	E	F	
1	ZIP	TOTAL POP	HOUSEHOLDS	WHITE WOMEN	BLACK WOMEN	MEDIAN INCOME	
2	63005	7,730	2,259	1,653	64	$92,859	ZIP Co
3	63010	29,205	10,138	5,123	-	$34,848	ZIP Co
4	63011	36,487	12,673	7,802	82	$56,109	St. Lo
5	63012	7,681	2,349	1,330	6	$40,384	Jeffers

TIPS AND TRAPS

I formatted my spreadsheet. Now it takes forever to save and it's grown to about 2 megabytes on my hard drive.

Some kinds of formatting apply to the entire worksheet, whether there's anything in the cells or not.

Try selecting all of the rows below your last row, and choose Edit, Clear, All. Now do the same thing with the extra columns. Resave the spreadsheet.

How do I get rid of merged cells?

Select the cells, and choose Format, Cells, Alignment and un-check the Merged Cells box.

I want some rows or columns to show up on all pages of my printout. How?

In the File, Page Setup menu, choose the tab called Sheet. Click in the box that says, Rows to repeat at Top, and select the rows you want to appear. Do the same thing with columns.

The little lines between cells disappeared.

This usually happens when you open a file from the Web. Choose Tools, Options, and put a check-mark next to "Gridlines."

When I double-click on a cell border, it widens it past the end of the screen.

You probably have a heading or something like it in one of your cells. To get it back to normal, choose Format, Column, Standard Width.

Now to widen that column, select only the cells you want to affect the width. Choose Format, Column, AutoFit Selection.

EXCEL FILTERS AND PIVOT TABLES

(Updated for Excel 2007 by Jaimi Dowdell)

Some reporters choose to use Excel as a little database. The reason is that it's simple and flexible for summarizing and filtering small data sets.

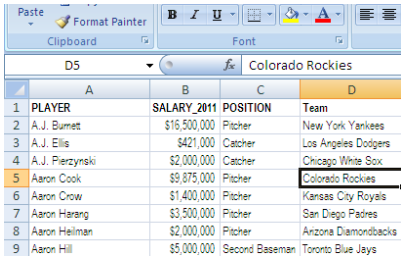
The two key tools are filters and pivot tables. Filters let you see just the items you want, without changing the underlying data. Pivot tables are powerful summary tools, much like statistical software for large databases. You'll use them to create crosstabs.

SETTING UP YOUR SPREADSHEET

There are two steps to get ready for a filter or pivot table. One you have to do. The other is optional, but will make your life easier.

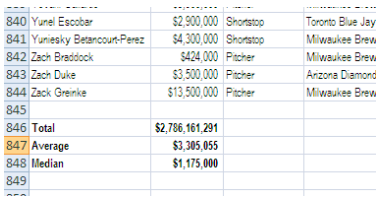
Make sure it looks like a database

To make a filter or pivot table work, you need your data in columns all next to one another, and rows without blanks. You also need field or column names directly above the data in a single cell:



	A	B	C	D
1	PLAYER	SALARY_2011	POSITION	Team
2	A.J. Burnett	$16,500,000	Pitcher	New York Yankees
3	A.J. Ellis	$421,000	Catcher	Los Angeles Dodgers
4	A.J. Pierzynski	$2,000,000	Catcher	Chicago White Sox
5	Aaron Cook	$9,875,000	Pitcher	Colorado Rockies
6	Aaron Crow	$1,400,000	Pitcher	Kansas City Royals
7	Aaron Harang	$3,500,000	Pitcher	San Diego Padres
8	Aaron Hellman	$2,000,000	Pitcher	Arizona Diamondbacks
9	Aaron Hill	$5,000,000	Second Baseman	Toronto Blue Jays

Make sure any totals, averages, notes or other words you placed at the bottom are separated by a blank row:

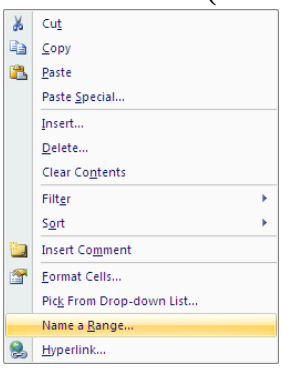


840	Yunel Escobar	$2,900,000	Shortstop	Toronto Blue Jay
841	Yuniesky Betancourt-Perez	$4,300,000	Shortstop	Milwaukee Brew
842	Zach Braddock	$424,000	Pitcher	Milwaukee Brew
843	Zach Duke	$3,500,000	Pitcher	Arizona Diamond
844	Zack Greinke	$13,500,000	Pitcher	Milwaukee Brew
845				
846	Total	$2,786,161,291		
847	Average	$3,305,055		
848	Median	$1,175,000		
849				

Name the database

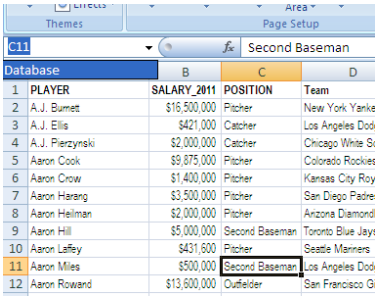
You don't have to do this, but it makes later work easier.

Select the data, including the titles but excluding the totals at the bottom (click in your data and type ctrl+shift+8 to quickly make the selection). Right click on the selected data and choose "Name a range." Now, type in a name to represent the data range. I usually call it "Database."



Now whenever you want to refer to that area, you can refer to the name Database instead of its address.

Try it. Select any cell on your worksheet. Now drop down the menu on the upper left corner of your worksheet (where the cell address usually appears) and pick Database:



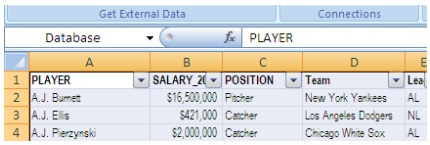
	A	B	C	D
1	PLAYER	SALARY_2011	POSITION	Team
2	A.J. Burnett	$16,500,000	Pitcher	New York Yanke
3	A.J. Ellis	$421,000	Catcher	Los Angeles Dod
4	A.J. Pierzynski	$2,000,000	Catcher	Chicago White So
5	Aaron Cook	$9,875,000	Pitcher	Colorado Rockies
6	Aaron Crow	$1,400,000	Pitcher	Kansas City Roy
7	Aaron Harang	$3,500,000	Pitcher	San Diego Padre
8	Aaron Hellman	$2,000,000	Pitcher	Arizona Diamondl
9	Aaron Hill	$5,000,000	Second Baseman	Toronto Blue Jays
10	Aaron Laffey	$431,600	Pitcher	Seattle Mariners
11	Aaron Miles	$500,000	Second Baseman	Los Angeles Dod
12	Aaron Rowand	$13,600,000	Outfielder	San Francisco Gi

You'll be taken to your data.

FILTERING

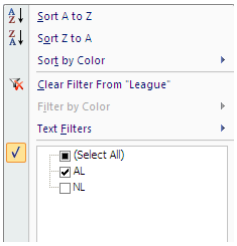
Select your database using its name, and click on the Data tab. Under the Data ribbon, select Filter. It looks like a funnel. After you've clicked on it, drop-down

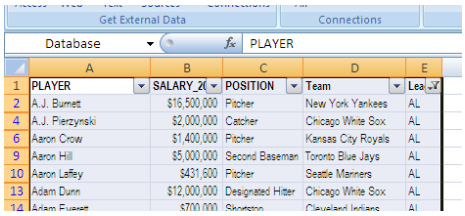
menus will appear next to each of the column headings:



Word Filtering

Use the drop-down menu to show only rows with certain words, like AL here:





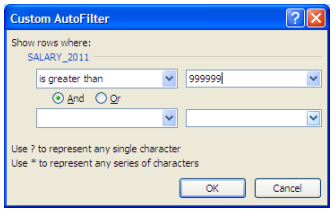
Your row numbers will turn blue to give you a visual clue that you're filtering. The drop-down arrow turns blue next to League to show that it's the field that's filtered.

To return to all rows, drop down the filter again and click on the box next to (Select All).

Number Filtering

To choose numbers, you'll usually want to choose values greater than or less than a certain value.

Drop down your menu in the appropriate column and choose Number Filters. Then choose "is greater than" and type in the value:



REMOVING A FILTER

Make sure to get rid of any filters before you sort or make any new calculations. To remove the filter, choose Data tab and click on Filter. Now all of the drop-downs will disappear.

SETTING UP A PIVOT TABLE

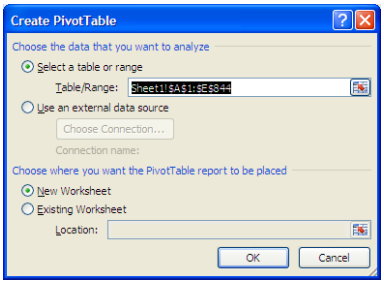
You have powerful summary tools with a Pivot Table. It's much like a Totals, Group By or Summary query in a database manager, but it allows even more flexibility.

To start a Pivot Table, select your data, including the headings. Then choose the Insert tab, then Pivot table and pivot table again.

You'll get a Pivot Table Wizard. Make sure Excel recognized your database. If there aren't marching ants going around your data, then type in Database if you named it.

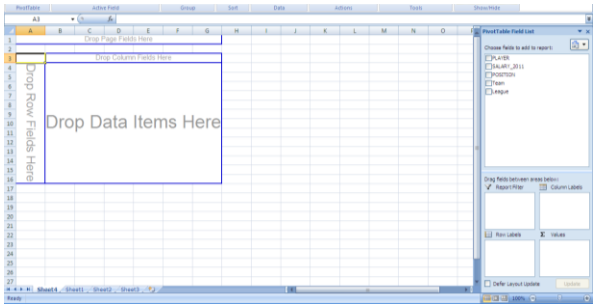
Now make sure Excel recognized your database:

Type in Database if you named the range. You can also click in somewhere in your data and type ctrl+shift+8 to highlight the selection.

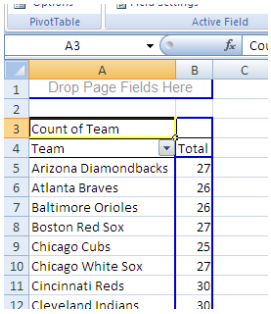


There's no reason why you should put your pivot table over your current work, so make sure "New Worksheet" is select. Then click "Ok."

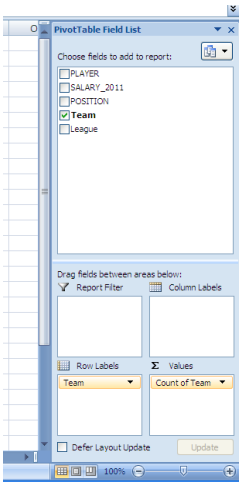
This is the meat of your pivot table. You'll drag the buttons for each element you want to see from the right-hand side to the boxes.



(When you drag a column that contains only numbers into the center, Data, area, Excel assumes you want to add up the values. Otherwise it assumes you want to count up the lines, or players per team in this case.)



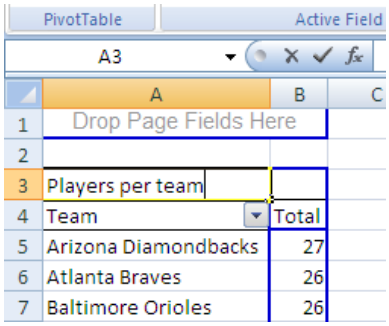
	A	B	C
1	Drop Page Fields Here		
2			
3	Count of Team		
4	Team	Total	
5	Arizona Diamondbacks	27	
6	Atlanta Braves	26	
7	Baltimore Orioles	26	
8	Boston Red Sox	27	
9	Chicago Cubs	25	
10	Chicago White Sox	27	
11	Cincinnati Reds	30	
12	Cleveland Indians	30	



EDITING A PIVOT TABLE

To change column or row headings

Type right over what Excel gave you:



	A	B	C
1	Drop Page Fields Here		
2			
3	Players per team		
4	Team	Total	
5	Arizona Diamondbacks	27	
6	Atlanta Braves	26	
7	Baltimore Orioles	26	

To add or delete elements

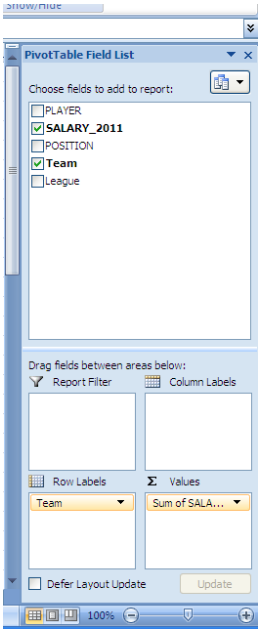
If the pivot table field list along the right disappears, simply click back on your pivot table along the left.

This brings you back to your choices for the table.

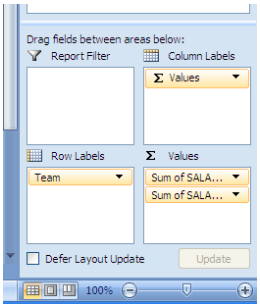
AUTOMATICALLY CALCULATING PERCENTAGES

You can add data elements more than once, and change how Excel presents them to you. For example, let's say you had a pivot table with total salary by team as shown in the following figure:

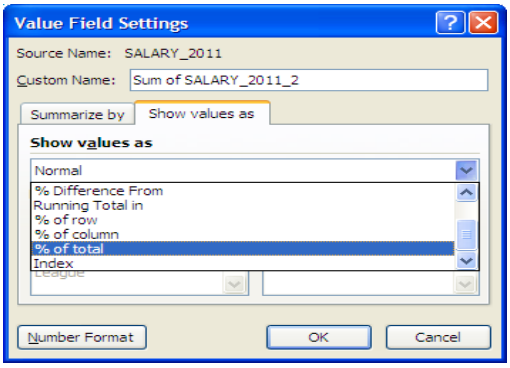
	A	B
1	Drop Page Fields Here	
2		
3	Sum of SALARY_2011	
4	Team	Total
5	Arizona Diamondbacks	53639833
6	Atlanta Braves	87002692
7	Baltimore Orioles	85304038
8	Boston Red Sox	161762475
9	Chicago Cubs	125047329
10	Chicago White Sox	127789000
11	Cincinnati Reds	75947134
12	Cleveland Indians	49190566
13	Colorado Rockies	88148071
14	Detroit Tigers	105700231
15	Florida Marlins	56944000
16	Houston Astros	70694000
17	Kansas City Royals	36126000
18	Los Angeles Angels	138543166
19	Los Angeles Dodgers	104188999
20	Milwaukee Brewers	85497333
21	Minnesota Twins	112737000
22	New York Mets	118847309
23	New York Yankees	202689028
24	Oakland Athletics	66536500
25	Philadelphia Phillies	172976379
26	Pittsburgh Pirates	45047000
27	San Diego Padres	45869140



Drag another copy of the salary field into your data area by dragging it under "Values" in the lower right-hand corner of the field list box:

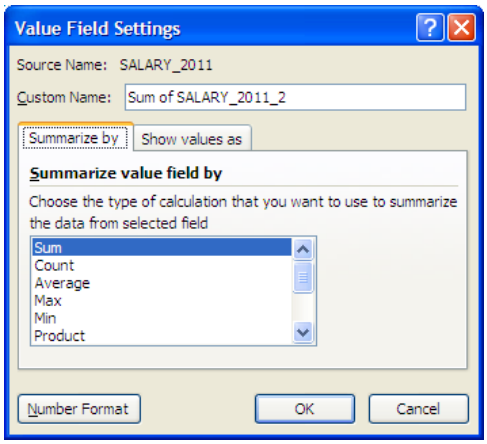


Then click on the drop-down arrow next to the "Sum of SALA…" you just added. Select, "Value field settings…" Under



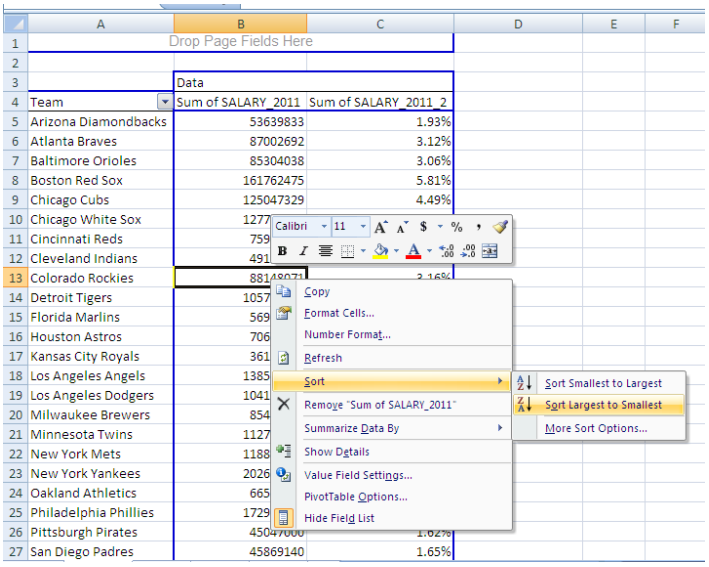
"Show Data As", click on the drop-down menu and choose % of Total:

Notice under "Summarize by" that you can change Sum to count, average, etc.



SORTING PIVOT TABLES

Newer versions of Excel have made this very simple. If you'd like to sort by numbers created in the pivot table, like the total salary per team, simply right click on one of the values and select sort then "smallest to largest" or "largest to smallest."



A WORD ON PIVOT TABLE SETUPS

Pivot tables are easy to read when they follow Philip Meyer's rule of thumb: Put the independent field as columns, the dependent field as rows, and calculate a column percent.

Translation: Put whatever comes first in time in the COLUMNS area, put whatever comes last in time in ROWS and change "Normal" to "% of Column" in the Show Data As area.

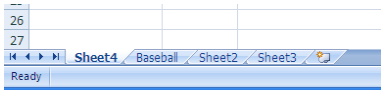
That way you can read it normally, from left to right.

You can use this for all kinds of stories: Do women with expensive insurance get c-sections more frequently than those covered under Medicaid or charity cases? Do upper-income minority homeowners get refused loans more frequently than similarly situated whites? How frequently do public officials use their cell phones during work hours?

TIPS, TRAPS AND FAQS

How do I get back to my original data?

At the bottom of your screen are little tabs, like index markers. Click on the appropriate one. If you haven't named it, choose Sheet 1.



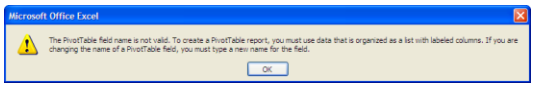
How do I get Pivot Tables to calculate medians?

You don't. It's a key element missing from both Pivot Tables and database management programs. There are ways to calculate medians for groups, but they're quite difficult.

How do I get a Pivot Table to update data I've changed in the original database?

Right click on the pivot table and select "refresh."

I get an error when I try to create the pivot table.



You probably have a missing heading. Check to make sure that the row above your data is filled in with titles.

Creating bigger categories:

Rather than using formulas, it may be simplest to create an "Other" category or other groupings through a pivot table.

Put the values you want together next to one another. Then select them, and choose the Group button on your query and pivot toolbar. You can also find "group" if you right click on the values.