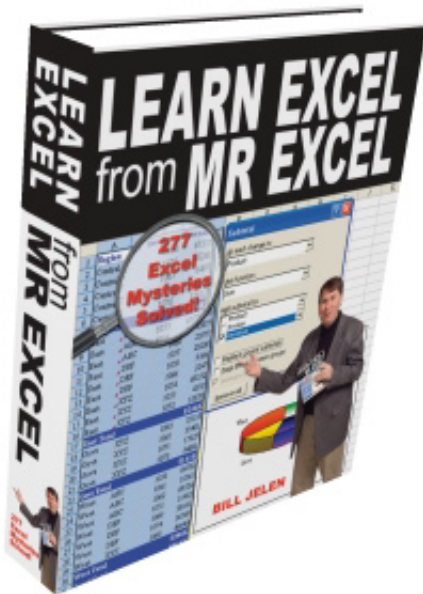




Learn Excel from MrExcel - Week 47

Learn Excel from Mr Excel

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This week - 7 topics - fractions, complex conditional formats, problems with pasted web data, .arrows, Fit Selection.

FIT A SLIGHTLY TOO-LARGE VALUE IN A CELL

Problem: You have a column with a width setting of 8.5. The longest value in that column is 10 characters wide. This is just a bit too large. Text entries might be truncated and some numeric entries will appear as pound signs, as shown in Fig. 1294.

	C5		f	10205684.5
	A	B	C	D
1	Invoice	Customer	Sales	Date
2	1901	ABC, Inc.	4,974,374	9/12/2005
3	1902	TUVW, Ir	1,586,688	9/12/2005
4	1903	BCD, Inc.	2,140,258	9/12/2005
5	1904	JKLM, Inc.	#####	9/13/2005
6	1905	FGH, Inc.	2,497,515	9/13/2005
7	1906	STUV, Inc	7,626,554	9/13/2005
8	1907	CDE, Inc.	9,908,921	9/14/2005

Fig. 1294

Strategy: Excel offers a Shrink to Fit option. Select the cells that are too large. From the menu, select Format – Cells. On the Alignment tab, choose Shrink to Fit from the Text Control section, as shown in Fig. 1295.

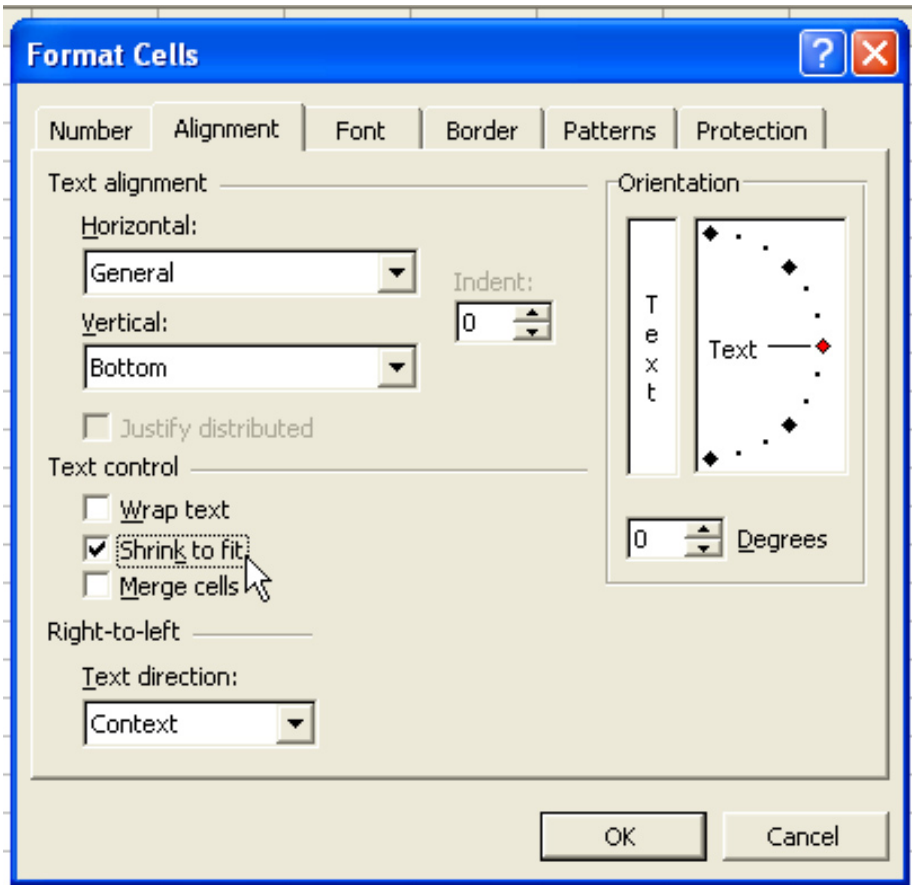


Fig. 1295

Result: The cells are displayed in a smaller font when they become too wide for the column, as shown in Fig. 1296. This is preferable to having the numbers displayed as #####.

	A	B	C	D
1	Invoice	Customer	Sales	Date
2	1901	ABC, Inc.	4,974,374	9/12/2
3	1902	TUVW, Ir	1,586,688	9/12/2
4	1903	BCD, Inc.	2,140,258	9/12/2
5	1904	JKLM, Inc.	10,205,685	9/13/2
6	1905	FGH, Inc.	2,497,515	9/13/2

Fig. 1296

Summary: When you have just a few cells that are too large for the column, use the Shrink to Fit option to allow the values to display properly without showing the overflow pound signs.

Commands Discussed: Format – Cells – Shrink to Fit

SHOW RESULTS AS FRACTIONS

Problem: You work in an industry that reports values in fractions. Stockbrokers are used to dealing in eighths. As shown in Fig. 1297, tire engineers still measure tread depth in thirty-seconds of an inch.

	A	B	C	D
1	Bus #	Position	Date Checked	Tread Depth
2	32	RF	8/15/2005	0.09375
3	32	LF	8/15/2005	0.125
4	32	RR	8/15/2005	0.15625
5	32	LR	8/15/2005	0.15625
6	31	RF	8/15/2005	0.0625
7	31	LF	8/15/2005	0.0625

Fig. 1297

Strategy: There are number formats for fractions. There are nine standard fractional formats available in the Format Cells dialog box, as shown in Fig. 1298.

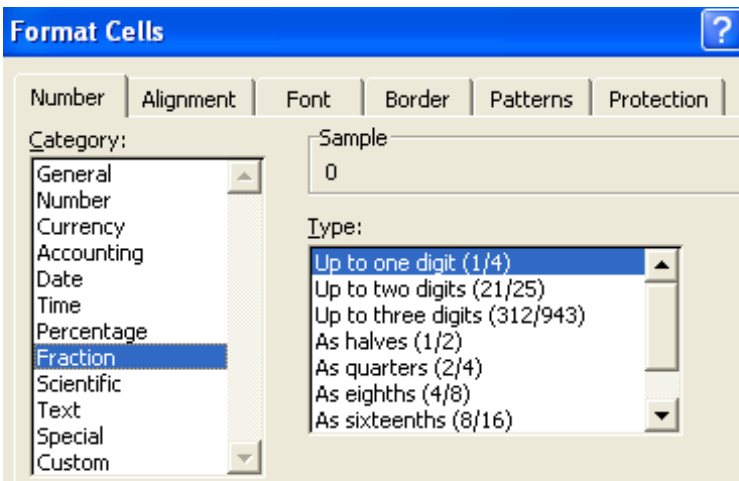


Fig. 1298

Beyond the seven shown in Fig. 1298, Excel offers standard formats for tenths and hundredths. Unfortunately, there is not a standard format for thirty-seconds.

There probably is a custom numeric format to handle thirty-seconds. Here is how to figure it out.

- 1) Select the standard format for sixteenths, as shown in Fig. 1299.

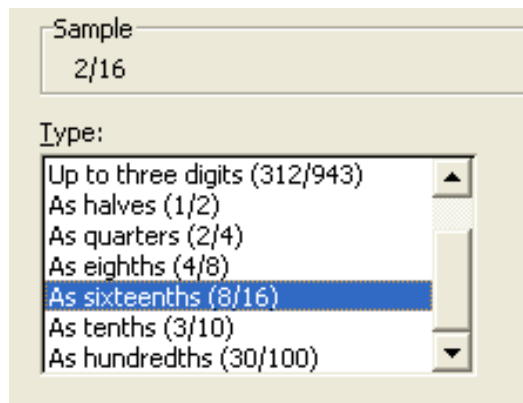


Fig. 1299

- 2) Then, in the Category list, scroll down and select Custom. As shown in Fig. 1300, you will see that the custom number format code for sixteenths is # ??/16.

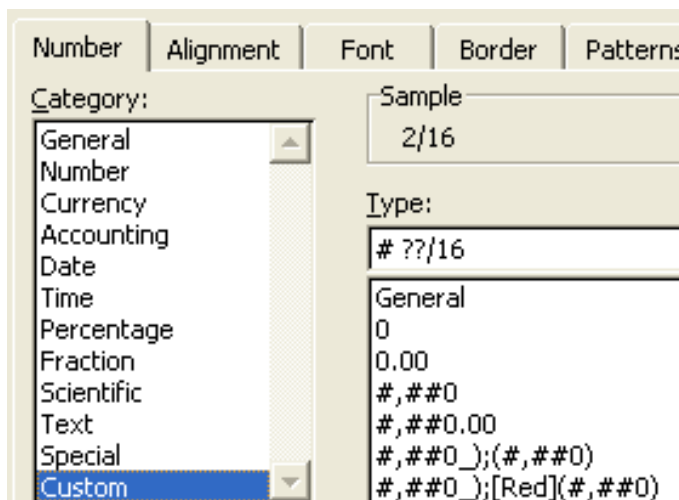


Fig. 1300

- 3) From this, you can deduce that # ??/32 might be a valid number format. Click into the Type: box and change the 16 to 32. The Sample area will immediately confirm that you have hit upon the correct format for thirty-seconds, as shown in Fig. 1301.

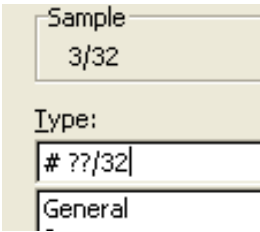


Fig. 1301

As shown in Fig. 1302, you can use this style of custom numeric format to build fractions in any format that your industry regularly uses.

	A	B	C	D
1	Bus #	Position	Date Checked	Tread Depth
2	32	RF	8/15/2005	3/32
3	32	LF	8/15/2005	4/32
4	32	RR	8/15/2005	5/32
5	32	LR	8/15/2005	5/32
6	31	RF	8/15/2005	2/32
7	31	LF	8/15/2005	2/32

Fig. 1302

Summary: Excel can display formula results as fractions.

Commands Discussed: Format – Cells – Numeric – Fractions;
Format – Cells – Numeric – Custom

COLOR ALL SALES GREEN FOR A DAY IF TOTAL SALES > \$999

Problem: Your company offers a bonus pool on any day where the total sales exceed \$1,000. You have invoice data by date, as shown in Fig. 1303. You would like to highlight all records for the days that meet \$1,000 in sales.

Strategy: You can use conditional formatting to perform a complex task such as this. But first, before getting into conditional formatting, you should develop the formula that you will need.

- 1) The first task is to add a column that will total all sales for this day. As shown in Fig. 1304, the SUMIF function can do this. There are three arguments in the SUMIF function: =SUMIF(\$A\$2:\$A\$30,A2,\$C\$2:\$C\$30).

	A	B	C
1	Date	Invoice	Sales \$
2	12/1/2004	1506	82
3	12/1/2004	1507	172
4	12/1/2004	1508	202
5	12/1/2004	1509	155
6	12/2/2004	1510	107
7	12/2/2004	1511	249
8	12/2/2004	1512	156
9	12/2/2004	1513	450
10	12/2/2004	1514	227
11	12/3/2004	1515	125
12	12/3/2004	1516	239
13	12/3/2004	1517	115
14	12/3/2004	1518	82
15	12/3/2004	1519	236
16	12/4/2004	1520	218

Fig. 1303

	A	B	C	D	E	F
1	Date	Invoice	Sales \$	Total for Today		
2	12/1/2004	1506	82	=SUMIF(\$A\$2:\$A\$30,A2,\$C\$2:\$C\$30)		
3	12/1/2004	1507	172			
4	12/1/2004	1508	202			

Fig. 1304

This function tells Excel to examine each cell in A2:A30. If the cell value is equal to cell A2, then it adds up the corresponding cell from C2:C30.

There are a lot of dollar signs in the formula. As you copy the formula down in your temporary column D, you want the ranges in the first and third parameter to be frozen. In our temporary formula in column D, there is no reason to freeze the A2 in the second parameter. However, in the conditional format dialog, this formula will be applied to cells in

A, B, and C, so it is important to freeze the second parameter to column A.

- 2) In this case, you should edit the formula and add a \$ before A2, as shown in Fig. 1305.

	A	B	C	D	E	F	
1	Date	Invoice	Sales \$	Total for Today			
2	12/1/2004	1506	82	=SUMIF(\$A\$2:\$A\$30,\$A2,\$C\$2:\$C\$30)			
3	12/1/2004	1507	172				

Fig. 1305

- 3) Enter the formula in D2. Double-click the Fill handle to copy the formula down. In Fig. 1306, you can see that every row contains the total sales for that day.

	A	B	C	D	
1	Date	Invoice	Sales \$	Total for Today	
2	12/1/2004	1506	82	611	
3	12/1/2004	1507	172	611	
4	12/1/2004	1508	202	611	
5	12/1/2004	1509	155	611	
6	12/2/2004	1510	107	1189	
7	12/2/2004	1511	249	1189	
8	12/2/2004	1512	156	1189	
9	12/2/2004	1513	450	1189	
10	12/2/2004	1514	227	1189	
11	12/3/2004	1515	125	797	
12	12/3/2004	1516	239	797	
13	12/3/2004	1517	115	797	
14	12/3/2004	1518	82	797	
15	12/3/2004	1519	236	797	
16	12/4/2004	1520	218	1017	

Sheet1

Sheet2

Draw

AutoShapes

Ready

Sum=1189

Fig. 1306

- 4) As a reasonableness test, highlight the sales for the December 2. The status bar at the bottom of the Excel window confirms that the total of these cells is \$1,189.

- 5) The formula for conditional formats requires a formula that evaluates to either TRUE or FALSE. Add a new formula in column E. As shown in Fig. 1307, the formula in E2 is `=D2>=1000`.

E2		fx =D2>=1000				
	A	B	C	D	E	
1	Date	Invoice	Sales \$	Total for Today	Over \$1000?	
2	12/1/2004	1506	82	611	FALSE	
3	12/1/2004	1507	172	611	FALSE	

Fig. 1307

- 6) You can combine these two formulas into a single formula, as shown in Fig. 1308.

D2		fx =(SUMIF(\$A\$2:\$A\$30,\$A2,\$C\$2:\$C\$30))>=1000						
	A	B	C	D	E	F	G	
1	Date	Invoice	Sales \$	Over \$1000?				
2	12/1/2004	1506	82	FALSE				
3	12/1/2004	1507	172	FALSE				
4	12/1/2004	1508	202	FALSE				
5	12/1/2004	1509	155	FALSE				
6	12/2/2004	1510	107	TRUE				

Fig. 1308

You now want to set up the conditional format. Follow these steps.

- 1) It is easiest if you copy the formula that is working. Go to cell D2. Hit the F2 key to put the formula in Edit mode. In the formula bar, drag to highlight the entire formula, as shown in Fig. 1309.

COUNTA		X ✓		fx =(SUMIF(\$A\$2:\$A\$30,\$A2,\$C\$2:\$C\$30))>=1000				
	A	B	C	D	E	F	G	
1	Date	Invoice	Sales \$	Over \$1000?				
2	12/1/2004	1506	82	= (SUMIF(\$A\$2:\$A\$30,\$A2,\$C\$2:\$C\$30))>=1000				
3	12/1/2004	1507	172	FALSE				

Fig. 1309

- 2) Hit Ctrl+C to copy the formula from the formula bar. Copying from the formula bar allows the text of the formula to stay on the clipboard after you hit the Esc key.
- 3) Hit the Esc key to exit Edit mode.

- 4) Select cells A2:C30. From the menu, select Format – Conditional Format.

The Conditional Format dialog initially displays a format suitable for specifying that a cell contains a value between two other values, as shown in Fig. 1310. This is the easier version of conditional formatting, but it is the less powerful.

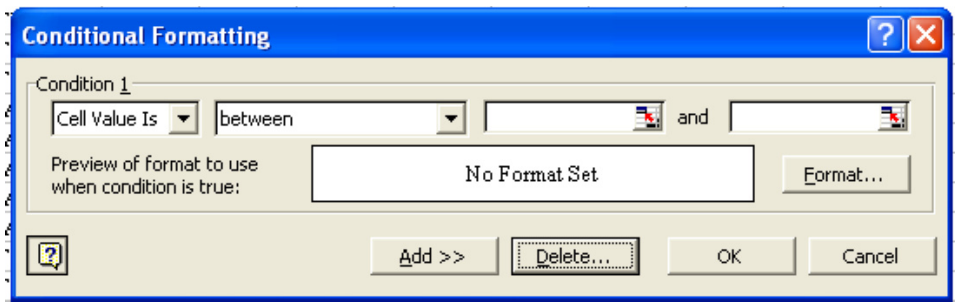


Fig. 1310

- 5) To access the more powerful version, use the dropdown to change “Cell Value Is” to “Formula Is”, as shown in Fig. 1311.

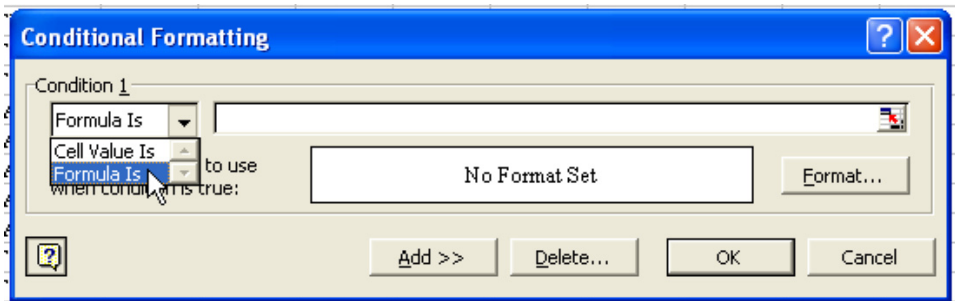


Fig. 1311

- 6) Click in the formula box, and hit Ctrl+V to paste the formula from the formula bar, as shown in Fig. 1312.

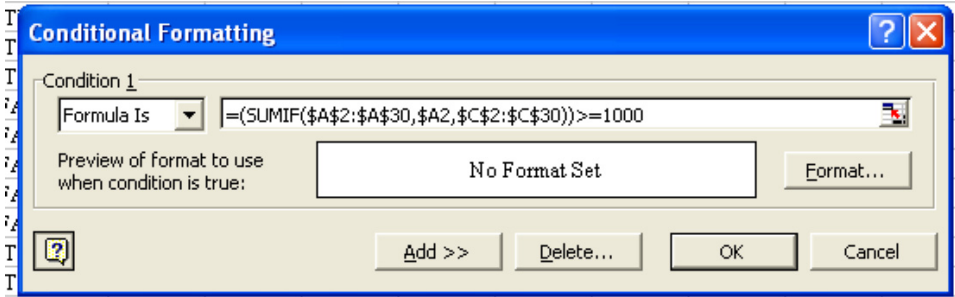


Fig. 1312

- 7) Next, you have to set up a unique format that should be used if the condition is True. Choose the Format... button. As shown in Fig. 1313, you will be given a dialog where you can customize the Font, Border, or Patterns.
- 8) Choose the Patterns tab. Select a green color and choose OK.
- 9) Choose OK to close the Conditional Format dialog.

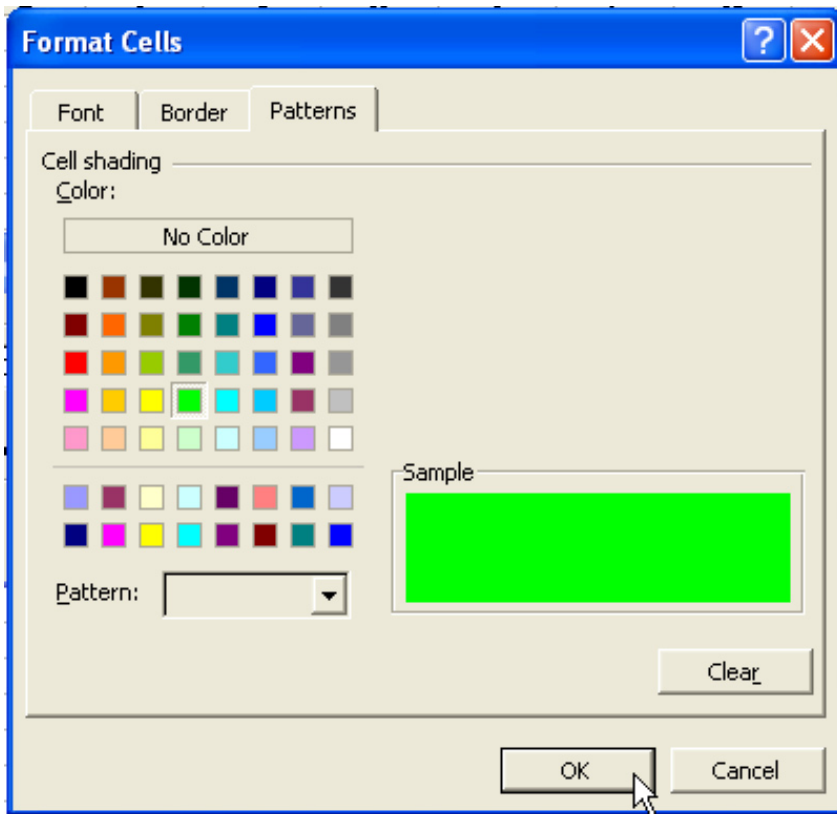


Fig. 1313

If everything worked OK, you will see that all of the rows for the second, fourth, and sixth are highlighted in green, as shown in Fig. 1314.

	A	B	C	D
2	12/1/2004	1506	82	FALSE
3	12/1/2004	1507	172	FALSE
4	12/1/2004	1508	202	FALSE
5	12/1/2004	1509	155	FALSE
6	12/2/2004	1510	107	TRUE
7	12/2/2004	1511	249	TRUE
8	12/2/2004	1512	156	TRUE
9	12/2/2004	1513	450	TRUE
10	12/2/2004	1514	227	TRUE
11	12/3/2004	1515	125	FALSE
12	12/3/2004	1516	239	FALSE
13	12/3/2004	1517	115	FALSE
14	12/3/2004	1518	82	FALSE
15	12/3/2004	1519	236	FALSE
16	12/4/2004	1520	218	TRUE
17	12/4/2004	1521	225	TRUE
18	12/4/2004	1522	235	TRUE
19	12/4/2004	1523	165	TRUE
20	12/4/2004	1524	174	TRUE
21	12/5/2004	1525	214	FALSE

Fig. 1314

You can now safely delete your temporary formula in column D.

Summary: By changing the Conditional Formatting dialog from Cell Value Is to Formula Is, you can create amazingly powerful formulas to highlight entire rows if some condition is True.

Commands Discussed: Data – Conditional Format

Functions Discussed: =SUMIF()

COLOR SALES FOR A DAY THAT EXCEEDS \$999

Problem: The owner of a retail store offers a five percent bonus when sales for a day exceed \$1,000. In the dataset shown in Fig. 1315, you want to color all cells that are eligible for the bonus.

Strategy: In this case, you want to use SUMIF to keep a running total of all rows above the current row. If those rows are over \$1,000, then the current row is eligible for the bonus.

- 1) It is easier to understand this formula if you enter it on the last row of the dataset, as shown in Fig. 1316.

This formula is similar to the formula in the last example, with one crucial difference. In the last example, the first and third ranges were examining all of the rows from A2 to A30 every time. This time, the top of the first range is locked at \$A\$2, but the bottom of

	A	B	C
1	Date	Invoice	Sales \$
2	12/1/2004	1506	82
3	12/1/2004	1507	172
4	12/1/2004	1508	202
5	12/1/2004	1509	155
6	12/2/2004	1510	107
7	12/2/2004	1511	249
8	12/2/2004	1512	156
9	12/2/2004	1513	450
10	12/2/2004	1514	227
11	12/3/2004	1515	125
12	12/3/2004	1516	239
13	12/3/2004	1517	115
14	12/3/2004	1518	82
15	12/3/2004	1519	236
16	12/4/2004	1520	218

Fig. 1315

	A	B	C	D	E	F	G
1	Date	Invoice	Sales \$	Over \$1K			
20	12/4/2004	1524	174				
21	12/5/2004	1525	214				
22	12/5/2004	1526	21				
23	12/5/2004	1527	220				
24	12/6/2004	1528	240				
25	12/6/2004	1529	456				
26	12/6/2004	1530	219				
27	12/6/2004	1531	154				
28	12/6/2004	1532	37				
29	12/6/2004	1533	163				
30	12/6/2004	1533	163	=SUMIF(\$A\$2:\$A29,\$A30,\$C\$2:\$C29)			

Fig. 1316

the range is pointing to the row above the current row. The \$A29 reference says that we are always looking at column A, but the reference will change to reflect the row above the current row.

- 2) Copy D30 up to all of the other rows. This formula does not work in the first row of the dataset, so leave cell D2 blank, as shown in Fig. 1317.

	A	B	C	D	
1	Date	Invoice	Sales \$	Over \$1K	
2	12/1/2004	1506	82		
3	12/1/2004	1507	172	82	
4	12/1/2004	1508	202	254	
5	12/1/2004	1509	155	456	
6	12/2/2004	1510	107	0	
7	12/2/2004	1511	249	107	
8	12/2/2004	1512	156	356	
9	12/2/2004	1513	650	512	
10	12/2/2004	1514	227	1162	
11	12/3/2004	1515	125	0	
...	...	...	...	...	

Fig. 1317

The formula keeps a running total of all prior sales that day. In cell D5, the \$456 means that the three prior sales of \$82+\$172+\$202 totaled \$456. In Fig. 1317, the bonus program would only kick in on the sale made in row 10.

- 3) Edit the formula in D3 and add a test to see if this result is greater than or equal to 1000. You will have to add a leading parenthesis at the front and add >=1000 at the end, as shown in Fig. 1318.

	A	B	C	D	E	F	G	
1	Date	Invoice	Sales \$	Over \$1K				
2	12/1/2004	1506	82					
3	12/1/2004	1507	172	=(SUMIF(\$A\$2:\$A2,\$A3,\$C\$2:\$C2))>=1000				
4	12/1/2004	1508	202	FALSE				
5	12/1/2004	1509	155	FALSE				
6	12/2/2004	1510	107	FALSE				

Fig. 1318

- 4) Copy this formula down and you have a formula that evaluates to TRUE or FALSE. The True values are sales eligible for the bonus.

You now want to set up the conditional format. Follow these steps.

- 1) It is easiest if you copy the formula that is working. Go to cell D3. Hit the F2 key to put the formula in Edit mode. In the formula bar, drag to highlight the entire formula.
- 2) Hit Ctrl+C to copy the formula from the formula bar. Copying from the formula bar allows the text of the formula to stay on the clipboard after you hit the Esc key.
- 3) Hit the Esc key to exit Edit mode.
- 4) Select cells A3:C30.
- 5) From the menu, select Format – Conditional Format. Use the drop-down to change “Cell Value Is” to “Formula Is”.
- 6) Click in the Formula box, and hit Ctrl+V to paste the formula from the formula bar, as shown in Fig. 1319.

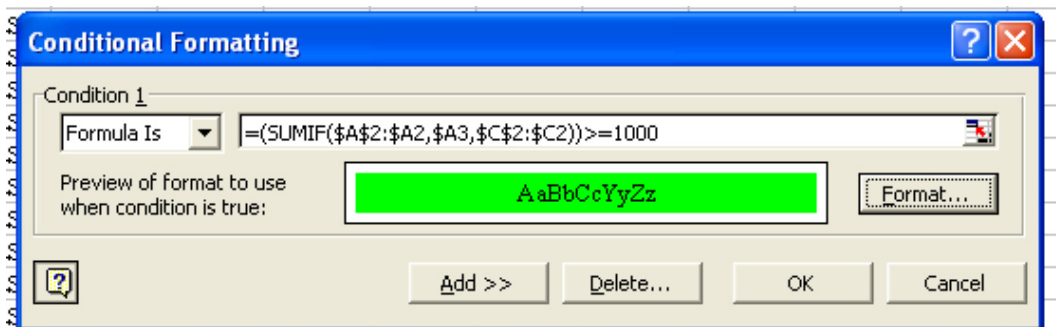


Fig. 1319

- 7) Choose the Format... button. Choose Green on the Patterns tab. Choose OK to close the Format Cells dialog. Choose OK to close the Conditional Format dialog.

Result: Sales that occurred after \$1000 in sales for a particular day are highlighted in green, as shown in Fig. 1320.

	A	B	C	D
1	Date	Invoice	Sales \$	Over \$1K
2	12/1/2004	1506	82	
3	12/1/2004	1507	172	FALSE
4	12/1/2004	1508	202	FALSE
5	12/1/2004	1509	155	FALSE
6	12/2/2004	1510	107	FALSE
7	12/2/2004	1511	249	FALSE
8	12/2/2004	1512	156	FALSE
9	12/2/2004	1513	650	FALSE
10	12/2/2004	1514	227	TRUE
11	12/3/2004	1515	125	FALSE
12	12/3/2004	1516	239	FALSE
13	12/3/2004	1517	115	FALSE
14	12/3/2004	1518	82	FALSE
15	12/3/2004	1519	236	FALSE
16	12/4/2004	1520	218	FALSE
17	12/4/2004	1521	225	FALSE
18	12/4/2004	1522	235	FALSE
19	12/4/2004	1523	165	FALSE
20	12/4/2004	1524	174	FALSE
21	12/5/2004	1525	214	FALSE
22	12/5/2004	1526	21	FALSE
23	12/5/2004	1527	220	FALSE
24	12/6/2004	1528	240	FALSE
25	12/6/2004	1529	456	FALSE
26	12/6/2004	1530	219	FALSE
27	12/6/2004	1531	154	FALSE
28	12/6/2004	1532	37	TRUE
29	12/6/2004	1533	163	TRUE

Fig. 1320

You can now safely delete your temporary formula in column D.

Summary: By changing the Conditional Formatting dialog from Cell Value Is to Formula Is, you can create amazingly powerful formulas to highlight entire rows if some condition is true.

Commands Discussed: Data – Conditional Format

Functions Discussed: =SUMIF()

TURN OFF WRAP TEXT IN PASTED DATA

Problem: If you regularly paste information from web pages, you might be frustrated at the way Excel wraps text in the cells. In Fig. 1321, column A is not wide enough for the date and column B is wrapped so that you can only see a few rows on the screen. Using AutoFit to make the columns wider will not work when the cells have their Wrap Text property turned on.

	A	B	C	D
1	Date	Description	Amount	Type
2				
3	#####	STAPLES #507 AKRON OH 11/22ST APLES #	(\$33.87)	W/D
4	#####	CHECK #3646 view	(\$45.68)	CHK
5	#####	STAPLES #507 AKRON OH 11/22ST APLES #	(\$5.11)	W/D
6	#####	BANKCA RD DISCOU NT 4300150 0010049 5 CCD	(\$20.06)	W/D

Fig. 1321

Part
IV

Strategy: Follow these steps to correct this.

- 1) First, hit Ctrl+1 to open the Format Cells dialog. On the Alignment tab, look in the Text Control section. The Wrap Text choice is probably a grey checkmark, as shown in Fig. 1322. This means that for some cells in the selection, the Wrap Text property is on, and for others it is off.

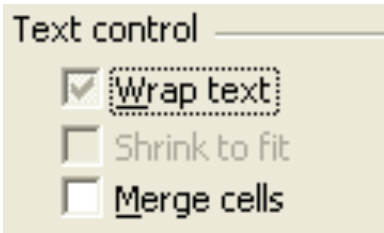


Fig. 1322

- 2) You want to turn the Wrap text property off. The first mouse click will change the grey checkmark to a black checkmark. The second mouse click will turn off the checkmark, as shown in Fig. 1323.

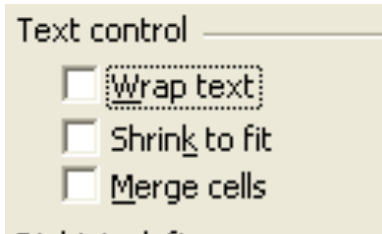


Fig. 1323

After this step, you can see more rows, as shown in Fig. 1324. You still need to make the columns wider.

	A	B	C	D
1	Date	Description	Amount	Type
2				
3	#####	STAPLES	(\$33.87)	W/D
4	#####	CHECK #	(\$45.68)	CHK
5	#####	STAPLES	(\$5.11)	W/D
6	#####	BANKCAF	(\$20.06)	W/D
7	#####	BANKCAF	\$786.47	DEP

Fig. 1324

- 3) From the menu, select Format – Column – Autofit Selection. You can now see the bank statement, as shown in Fig. 1325.

	A	B	C	D
1	Date	Description	Amount	Type
2				
3	11/24/2004	STAPLES #507 AKRON OH 11/22STAPLES #	(\$33.87)	W/D
4	11/24/2004	CHECK #3646 view	(\$45.68)	CHK
5	11/24/2004	STAPLES #507 AKRON OH 11/22STAPLES #	(\$5.11)	W/D
6	11/24/2004	BANKCARD DISCOUNT 430015000100495 CCD	(\$20.06)	W/D

Fig. 1325

Summary: Data pasted from web pages will often have the Wrap Text property turned on. This prevents the AutoFit selection command from working.

Commands Discussed: Format – Cells – Alignment – Wrap Text; Format – Column – AutoFit

DELETE ALL PICTURES IN PASTED DATA

Problem: You copy data from your bank’s Web page into Excel. On the Web page, the bank has little “check” icons that let you view a physical copy of the check, as shown in Fig. 1326.

Date ▼	Descrip
10/22/2004	TICKLING KEYS 1341
10/22/2004	CHECK #3622  view
10/22/2004	BANKCARD DISC
10/22/2004	BANKCARD MTOT

Fig. 1326

As shown in Fig. 1327, this check icon shows up as an annoying image in your Excel workbook. How can you delete all of these images in one step?

Date	Payee
10/22/2004	TICKLING KEYS 1341
10/22/2004	CHECK #3622  view
10/22/2004	BANKCARD DISC
10/22/2004	BANKCARD MTOT

Fig. 1327

Strategy: There is a tool in the Drawing toolbar that allows you to select all images in a rectangular area.

- 1) To display the Drawing toolbar, select View – Toolbars – Drawing. On the left side of the Drawing toolbar is a white arrow, as shown in Fig. 1328. This is called the Select Objects tool.

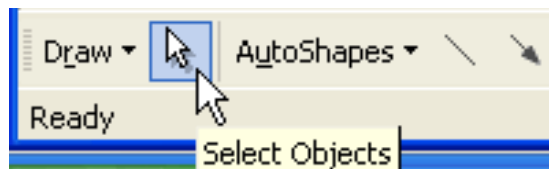


Fig. 1328

- 2) Choose the Select Objects tool. When you are in Select Objects mode, the white arrow will have a blue square around it, as shown in Fig. 1328.
- 3) Using the mouse, start highlighting above and to the left of the first cell with the check icon. Drag down and to the right to highlight all of the cells with the check icons. As shown in Fig. 1329, all of the drawing objects in the rectangle will be selected.

	ATM WITHDRAW
	CHECK #3604
	CHECK #3594
	TWO*301 0500

Fig. 1329

- 4) Hit the Delete key on the keyboard to delete all of the selected objects at once.

Gotcha: You have to remember to turn off the Select Objects mode by choosing the white arrow in the Drawing toolbar again. It is very annoying to try to select cells and have the mouse not respond to clicking when you forget to turn the white arrow off.

Summary: Use the Drawing toolbar to select all images in a rectangular range.

Commands Discussed: View – Toolbars – Drawing

DRAW AN ARROW TO VISUALLY ILLUSTRATE THAT TWO CELLS ARE CONNECTED

Problem: You have a large spreadsheet with many calculations. Results from section 1 are carried forward to cells on section 2. It would help to graphically illustrate that one cell flows to the calculation of another.

Strategy: Use the Drawing toolbar, as shown in Fig. 1330. If this is not visible at the bottom of your worksheet, then use View – Toolbars – Drawing. The toolbar typically appears at the bottom of the screen. Use the Arrow tool shown here.

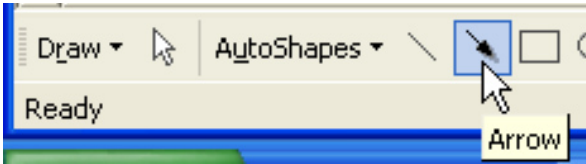


Fig. 1330

- 1) Click in the origin cell and drag to the final cell. When you release the mouse button, an arrow will appear, pointing from the first cell to the end cell, as shown in Fig. 1331.

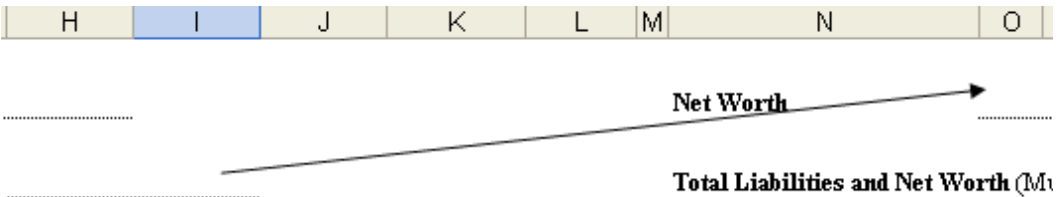


Fig. 1331

- 2) Use your mouse pointer to click on the line. Selection handles will appear. Right click and choose Format Drawing Object.
- 3) As shown in Fig. 1332, in the Format dialog you can customize line width, arrow style, color, etc.

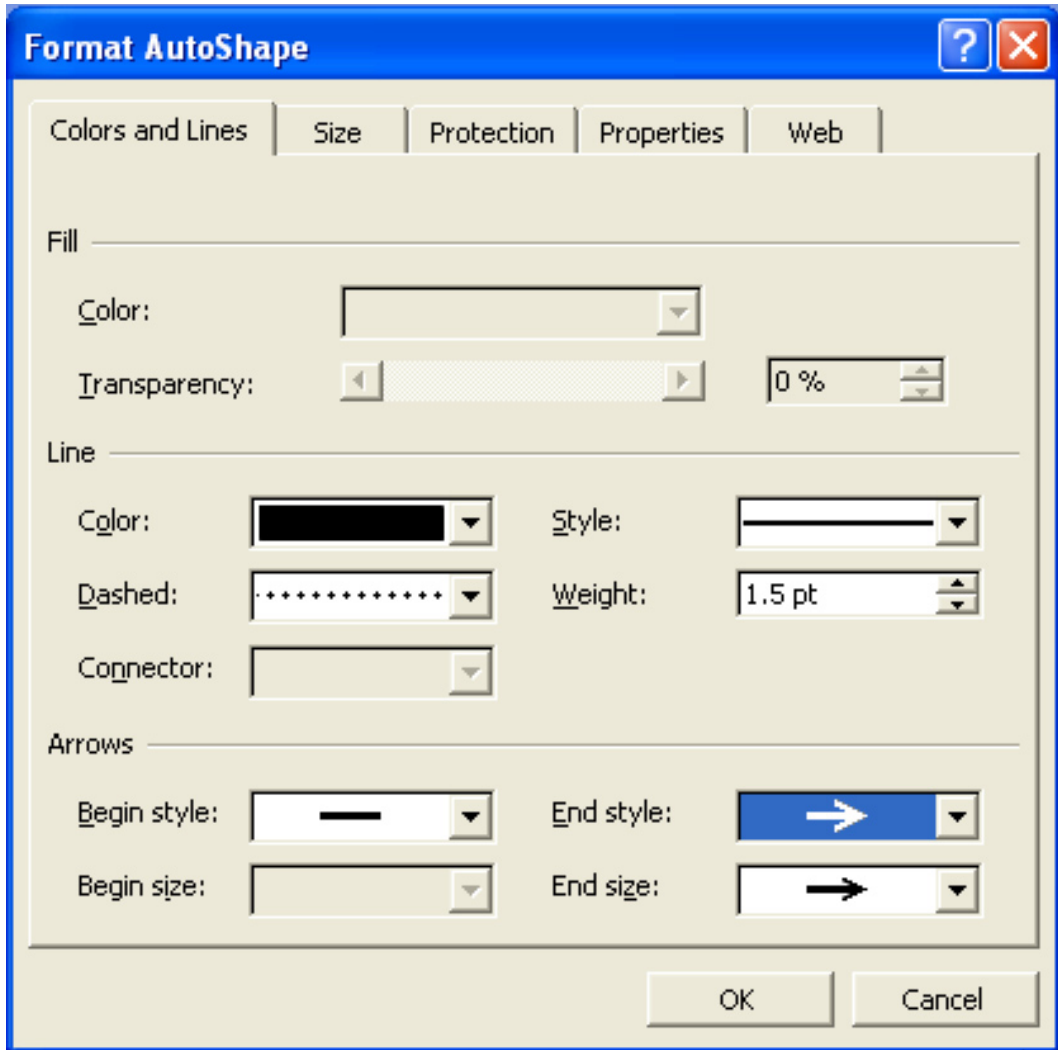


Fig. 1332

Note: The Properties tab of the dialog controls whether the arrow prints or not. Perhaps the most important property is the checkbox for Move and Size with Cells, as shown in Fig. 1333. If you leave this unchecked and insert rows between the origin and final cell, the arrow does not resize to keep pointing at the final cell.

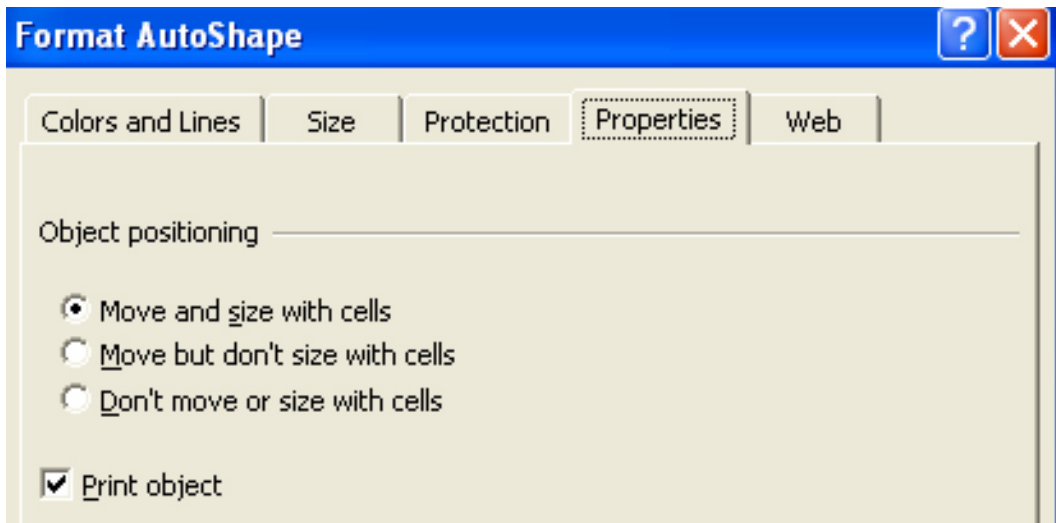


Fig. 1333

Summary: Create a variety of arrows to help graphically illustrate the flow of your spreadsheet.

Commands Discussed: View – Toolbars