Juice Excel Training Worksheets
Document Outline

Excel fundamentals

Data and functions

Presenting data

Keyboard Shortcuts (part 1 of 2)

What: Allows you to navigate excel and perform tasks much quicker than when a mou
Why: Learning the Keyboard shortcuts will drastically improve your efficiency when w

Note: Not all keyboard shortcuts will work in precisely the same way on Excel for Mac. In ge

Menu-based Keyboard shortcuts
Applicable to all Microsoft Office applications.
Looking at the toolbar above, we can see that one letter for each menu item is ι
the corresponding dropdown will open. From here press the letter for the item y
For example, to open up a simple data filter, one would normally have to click o
Using a keyboard shortcut, one would press ALT + D + F +F (that is, the alt butt
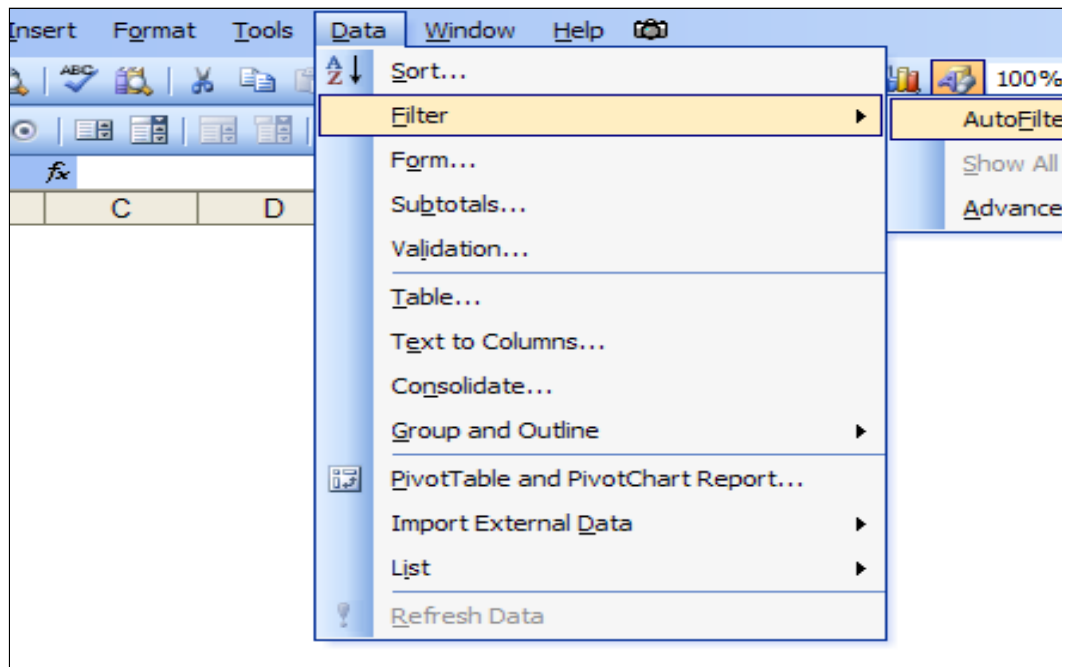
se has to be involved.
orking in excel

eneral, the "Apple key" replaces the "Control" key for most commands.

underlined. If you press and hold the "alt" button and then press one of these underlined le
you want to access.
n Data -> Filter -> AutoFilter in the Toolbar
ton, then the "D", then "F", then "F")
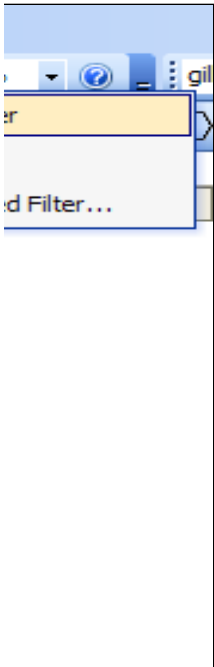
etters,

Keyboard Shortcuts (part 2 of 2)

What: A list of useful keyboard shortcuts that are not menu-based
Why: Learning the Keyboard shortcuts will drastically improve your effi

Note: Not all keyboard shortcuts will work in precisely the same way on Exc

General	
New file	Ctrl + N
Open file	Ctrl + O
Save file	Ctrl + S
Move between open workbooks	Ctrl + F6
Close file	Ctrl + F4
Save as	F12
Display the print menu	Ctrl + P
Select whole spreadsheet	Ctrl + A
Select column	Ctrl + Space
Select row	Shift + Space
Undo last action	Ctrl + Z
Redo last action	Ctrl + Y
Exit Excel	Alt + F4
Spell Check	F7
Cut	Ctrl + X
Copy	Ctrl + C
Paste	Ctrl + V
Find text	Ctrl + F
Recalculate	F9

Navigating	
Move to next cell in row	Tab
Move to previous cell in row	Shift + Tab
Up one screen	Page Up
Down one screen	Page Down
Move to next worksheet	Ctrl + Page Down
Move to previous worksheet	Ctrl + Page Up
Go to first cell in data region	Ctrl + Home
Go to last cell in data region	Ctrl + End
Data Region Left	Ctrl + Left Arrow
Data Region Right	Ctrl + Right Arrow
Data Region Down	Ctrl + Down Arrow
Data Region Up	Ctrl + Up Arrow

Select Whole Data Region	Ctrl + Shift + 8
Move to Next Sheet	Ctrl + Page Down
Move to Prior Sheet	Ctrl + Page Up
Access Drop down menu	Alt + Down/Up Arrow
Zoom in / out	Ctrl + mouse scroll

ciency when working in excel

el for Mac. In general, the "Apple key" replaces the "Control" key for most commands.

Formatting Text In Worksheet	
Bold toggle for selection	Ctrl + B
Italic toggle for selection	Ctrl + I
Underline toggle for selection	Ctrl + U
Strikethrough for selection	Ctrl + 5
Change the font	Ctrl + Shift + F
Change the font size	Ctrl + Shift + P
Apply outline borders	Ctrl + Shift + 7
Remove all borders	Ctrl + Shift + Underline
Wrap text in same cell	Alt + Enter

Formatting Cells	
Format cells	Ctrl + 1
Select font	Ctrl + Shift + F
Select font size	Ctrl + Shift + P
Format as number	Ctrl + Shift + 1
Format as date	Ctrl + Shift + 3
Format as currency	Ctrl + Shift + 4
Format as percentage	Ctrl + Shift + 5

Editing/Deleting Text	
Delete one character to right	Delete
Delete one character to left	Backspace
Edit active cell	F2
Cancel cell entry	Escape Key

Highlighting Cells	
Select entire worksheet	Ctrl + A
Select entire row	Shift + Spacebar
Select entire column	Ctrl + Spacebar
Manual select	Shift + Arrow Key

Inserting Text Automatically	
Autosum a range of cells	Alt + Equals Sign

Insert the date	Ctrl + ; (semi-colon)
Insert the time	Ctrl + Shift + ; (semi-colon)
Insert columns/rows	Ctrl + Shift + + (plus sign)
Insert a new worksheet	Shift + F11

Keyboard Shortcuts, Excel for Mac

For a more complete resource (PDF): http://www.isd196.k12.mn.us/rhs/techhelp/rhs/excel

Command	Applies to
Display the Find command (Edit menu)	Excel
Display the Replace command (Edit menu)	Excel
Create a new workbook	Excel
Open an existing file	Excel
Quit	Excel
Save	Workbook
Decrease font size	Workbook
Paste the selection	Excel
Repeat the last action	Workbook
Undo the last selection	Excel
Insert cells	Worksheet
Define name	Worksheet
Undo	Last action(s)

Moving / Selecting

Command	Applies to
Select the entire worksheet	Worksheet
Move to the edge of the current data region	Cell, Range
Move to the beginning of the worksheet	Worksheet
Delete selected cells	Cell, Range
Move to the next sheet in the workbook	Workbook
Move to the previous sheet in the workbook	Workbook
Select the current region around the active cell (the	Cell
Extend the selection to the last nonblank cell in the same column or row as the active cell	Cell
Extend the selection to the last nonblank cell in the same column or row as the active cell	Cell
Extend the selection to the last cell used on the worksheet (lower-right corner)	Cell
Extend the selection to the beginning of the worksheet	Cell
Extend the selection to the last nonblank cell in the same column or row as the active cell	Cell, Range
Extend the selection to the last nonblank cell in the same column or row as the active cell	Cell, Range
Extend the selection to the last nonblank cell in the same column or row as the active cell	Cell
Select the entire column	Cell
Edit the active cell	Cell
Move to the last cell to the right that is not blank in the current row	Cell, Range
Extend the selection to the last nonblank cell in the same column or row as the active cell	Cell
Extend the selection to the last cell used on the worksheet (lower-right corner)	Cell, Range
Extend the selection to the last cell in the current row	Cell, Range
Select the entire row	Cell, Cells

Formatting

Display the Cells command (Format menu)	Workbook
Apply or remove bold formatting	Cells, Text Boxes, Chart objects, Chart items
Apply or remove italic formatting	Cells, Text Boxes, Chart objects, Chart items
Display the Formula Palette after you type a valid function name in a formula	Worksheet
Insert the argument names and parentheses for a function, after you type a valid function name in a formula	Formula

Formulas

Insert the argument names and parentheses for a function, after you type a valid function name in a formula	Formula
Select only cells that are directly referred to by formulas in the selection	Cell
Start a new line in the same cell	Cell
Select all cells that are directly or indirectly referred to by formulas in the selection	Cell

l2001keybdshortcuts.pdf

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COMMAND+N
COMMAND+O
COMMAND+Q
COMMAND+S
COMMAND+SHIFT+,
COMMAND+V
COMMAND+Y
COMMAND+Z
CONTROL+I
CONTROL+L
F1

COMMAND+A
CONTROL+ARROW KEY
CONTROL+HOME
CONTROL+K
CONTROL+PAGE DOWN
CONTROL+PAGE UP
CONTROL+SHIFT+* (Asterisk)
CONTROL+SHIFT+ARROW KEY

CONTROL+SHIFT+DOWN ARROW

CONTROL+SHIFT+END

CONTROL+SHIFT+HOME
CONTROL+SHIFT+LEFT ARROW

CONTROL+SHIFT+RIGHT ARROW

CONTROL+SHIFT+UP ARROW

CONTROL+SPACEBAR
CONTROL+U
END, RETURN

END, SHIFT+ARROW KEY

END, SHIFT+HOME

END, SHIFT+RETURN
SHIFT+SPACEBAR

COMMAND+1
COMMAND+B

COMMAND+I

CONTROL+A

CONTROL+SHIFT+A

CONTROL+SHIFT+A

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Keyboarding examples

What: Hold down the "ctrl" key and press the arrow keys to move to the end of a conti

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Keyboarding examples

What: Hold down the "ctrl" key and press the arrow keys to move to the end of a contin

exercise 1

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start       finish
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exercise 2

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#   #   #   #   #   #   #   #     2
```

\#   **finish**

Keyboarding examples

What: Hold down the shift + "ctrl" and press the arrow keys to select the cells while moving to
Why: Eliminate the need to scroll down a large data set and select a large block of data almos

Select the blue shaded cells only

exercise 1

exercise 2

select me! select me! select me!
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select me! select me! select me!
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the end of a continuous block of data
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exercise 3

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Keyboarding examples

What: Deleteing rows and columns

exercise 1: delete the red columns and rows

a	b	c	d	e	f	g
0.69	0.94	0.39	0.93	0.25	0.19	0.65
0.59	0.52	0.81	0.57	0.84	0.51	0.46
0.70	0.37	0.17	0.20	0.21	0.09	0.57
0.22	0.71	0.06	0.62	0.84	0.29	0.44
0.90	0.70	0.81	0.71	0.40	0.86	0.25
0.80	0.14	0.03	0.81	0.69	0.82	0.20
0.13	0.23	0.66	0.45	0.32	0.14	0.23
0.51	0.43	0.67	0.14	0.47	0.10	0.51
0.68	0.97	0.48	0.84	0.48	0.76	0.44
0.11	0.34	0.35	0.19	0.33	0.26	0.25
0.72	0.64	0.47	0.20	0.18	0.54	0.37
0.86	0.96	0.38	0.74	0.70	0.72	0.79
0.32	0.27	0.66	0.13	0.40	0.73	0.25
0.11	0.86	0.64	0.54	0.81	0.89	0.48
0.29	0.96	0.86	0.05	0.72	0.26	0.47
0.22	0.12	0.78	0.80	0.15	0.66	0.71
0.54	0.89	0.40	0.64	0.24	1.00	0.55
0.95	0.67	0.02	0.77	0.38	0.55	0.59
0.64	0.44	0.82	0.64	0.82	0.49	0.08
0.39	0.29	0.42	0.54	0.02	0.15	0.85
0.36	0.25	0.03	0.87	0.75	0.89	0.62
0.26	0.93	0.53	0.69	0.55	0.47	0.29
0.44	0.58	0.26	0.78	0.16	0.50	0.52
0.31	0.87	0.60	0.75	0.71	0.37	0.72
0.45	0.93	0.65	0.17	0.66	0.86	0.45
0.81	0.10	0.68	0.03	0.00	0.78	0.31
0.66	0.38	0.95	1.00	0.98	0.59	0.48
0.82	0.93	0.04	0.70	0.41	0.34	0.45
0.81	0.06	0.89	0.87	0.93	0.03	0.97
0.46	0.61	0.40	0.69	0.49	0.92	0.43
0.43	0.11	0.08	0.38	0.96	0.62	0.94
0.90	0.80	0.98	0.57	0.40	0.07	0.19
0.10	0.16	0.74	0.70	0.78	0.21	0.51
0.92	0.90	0.80	0.12	0.05	0.41	0.18
0.64	0.95	0.02	0.41	0.30	0.74	0.15
0.83	0.88	0.10	0.34	0.29	0.14	0.22

0.31	0.89	0.19	0.08	0.50	0.70	0.33
0.57	0.44	0.43	0.94	0.36	0.83	0.74
0.79	0.40	0.23	0.76	0.47	0.79	0.87
0.91	0.09	0.15	0.63	0.93	0.41	1.00
0.60	0.83	0.26	0.49	0.92	0.41	0.84
0.71	0.67	0.59	0.37	0.29	0.67	0.92
0.92	0.65	0.55	0.34	0.02	0.95	0.54
0.80	0.52	0.83	0.72	0.77	0.46	0.30
0.54	0.37	0.45	0.38	0.43	0.99	0.18
0.18	0.74	0.88	0.27	0.58	0.23	0.91
0.48	0.06	0.89	0.23	0.69	0.57	0.58
0.91	0.89	0.19	0.62	0.67	0.15	0.98
0.78	0.31	0.57	0.79	0.62	0.21	0.59
0.56	0.96	0.23	0.40	0.30	0.61	0.95
0.61	0.05	0.77	0.47	0.73	0.95	0.94
0.27	0.23	0.47	0.93	0.22	0.35	0.88
0.69	0.17	0.11	0.55	0.54	0.69	0.96
0.39	0.36	0.88	0.54	0.22	0.54	0.72
0.78	0.92	0.65	0.96	0.38	0.87	0.01
0.25	0.26	0.15	0.97	0.31	0.33	0.33
0.35	0.50	0.45	0.93	0.45	0.70	0.91
0.76	0.76	0.75	0.95	0.43	0.68	0.96
0.01	0.02	0.35	0.24	0.70	0.77	0.58
0.58	0.80	1.00	0.66	0.86	0.35	0.69
0.16	0.55	0.80	0.82	0.61	0.86	0.33
0.97	0.75	0.02	0.33	0.39	0.41	0.91
0.96	0.78	0.36	0.53	0.84	0.94	0.67
0.76	0.69	0.72	0.27	0.36	0.10	0.64
0.73	0.44	0.62	0.87	0.95	0.49	0.45
0.35	0.41	0.35	0.14	0.54	0.76	0.16
0.23	0.59	0.48	0.36	0.87	0.20	0.29
0.92	0.94	0.34	0.04	0.57	0.63	0.33
0.94	0.48	0.25	0.37	0.01	0.98	0.63
0.40	0.95	0.00	0.12	0.41	0.03	0.23
0.33	0.83	0.76	0.06	0.57	0.70	0.86
0.94	0.08	0.21	0.17	0.69	0.26	0.00
0.09	0.15	0.91	0.95	0.02	0.71	0.18
0.49	0.28	0.01	0.35	0.73	0.07	0.43
0.55	0.06	0.29	0.50	0.42	0.53	0.86
0.38	0.01	0.98	0.74	0.54	0.52	0.00
0.72	0.77	0.98	0.01	0.67	0.42	0.44
0.52	0.56	0.55	0.56	0.39	0.93	0.95
0.69	0.72	0.28	0.32	0.55	0.85	0.05
0.78	0.08	0.42	0.28	0.09	0.85	0.26
0.96	0.75	0.89	0.40	0.73	0.38	0.18
0.13	0.32	0.91	0.49	0.45	0.22	0.63
0.85	0.15	0.27	0.15	0.42	0.58	0.40
0.53	0.90	0.87	0.77	0.43	0.64	0.37
0.68	0.10	0.13	0.44	0.24	0.33	0.89
0.86	0.18	0.76	0.91	0.99	0.57	0.56
0.92	0.12	0.66	0.70	0.25	0.29	0.56
0.12	0.12	0.79	0.77	0.91	0.24	0.65

0.40	0.96	0.37	0.17	0.99	0.53	0.77
0.39	0.39	0.75	0.59	0.21	1.00	0.36
0.99	0.02	0.53	0.42	0.60	0.19	0.20
0.64	0.40	0.39	0.23	0.35	0.95	0.41
0.53	0.02	0.04	0.47	0.06	0.43	0.28
0.35	0.05	0.71	0.11	0.03	0.82	0.05
0.72	0.36	0.34	0.11	0.12	0.03	0.19
0.26	0.72	0.70	0.03	0.85	0.65	0.98
0.00	0.30	0.15	0.12	0.88	0.54	0.89
0.09	0.92	0.26	0.86	0.12	0.77	0.50
0.97	0.07	0.51	0.64	0.25	0.51	0.92
0.78	0.37	0.61	0.91	0.54	0.44	0.38
0.16	0.61	0.60	0.18	0.27	0.50	0.65
0.74	0.55	0.82	0.33	0.53	0.56	0.71
0.28	0.20	0.95	0.05	0.48	0.12	0.01
0.40	0.28	0.89	0.00	0.07	0.05	0.51
0.30	0.08	0.48	0.96	0.42	0.34	0.68
0.43	0.50	0.94	0.19	0.96	0.32	0.22
0.41	0.22	0.81	0.55	0.18	0.68	0.81
0.80	0.37	0.18	0.79	0.37	0.59	0.80
0.91	0.24	0.31	0.31	0.47	0.02	0.05
0.87	0.61	0.95	0.39	0.33	0.05	0.28
0.32	0.39	0.19	0.31	0.82	0.72	0.78
0.89	0.13	0.25	0.88	0.34	0.51	0.71
0.04	0.50	0.74	0.34	0.22	0.76	0.57
0.76	0.86	0.83	0.08	0.99	0.58	0.55
0.97	0.54	0.53	0.37	0.98	0.85	0.81
0.08	0.11	0.81	0.91	0.43	0.91	0.42
0.35	0.71	0.66	0.71	0.04	0.52	0.82
0.21	0.26	0.25	0.96	0.66	0.79	0.69
0.41	0.60	0.24	0.35	0.96	0.75	0.74
0.92	0.14	0.59	0.28	0.04	0.23	0.23
0.44	0.24	0.44	0.24	0.25	0.03	0.99
0.62	0.75	0.01	0.78	0.03	0.51	0.37
0.16	0.49	0.37	0.24	0.07	0.54	0.94
0.11	0.68	0.29	0.72	0.86	0.90	0.16

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Keyboarding examples

What: Inserting rows and columns

Excel for Windows users	Excel for Mac users
Inserting rows: Alt-I-R	**Inserting rows: SHIF**
Insert, Row	*Select full row, then delete*
Inserting columns: Alt-I-C	**Inserting columns: C**
Insert, Column	*Select full row, then delete*

exercise 1: Insert a column after every blue column and a row

a	b	c	d	e	f	g	h	i
0.69	0.94	**0.39**	0.93	0.25	0.19	0.65	0.77	0.20
0.59	0.52	**0.81**	0.57	0.84	0.51	0.46	0.94	0.06
0.70	0.37	**0.17**	0.20	0.21	0.09	0.57	0.23	0.02
0.22	0.71	**0.06**	0.62	0.84	0.29	0.44	0.90	0.72
0.90	0.70	**0.81**	0.71	0.40	0.86	0.25	0.27	0.17
0.80	0.14	**0.03**	0.81	0.69	0.82	0.20	0.11	0.43
0.13	0.23	**0.66**	0.45	0.32	0.14	0.23	0.04	0.56
0.51	0.43	**0.67**	0.14	0.47	0.10	0.51	0.77	0.83
0.68	0.97	**0.48**	0.84	0.48	0.76	0.44	0.20	0.12
0.11	**0.34**	**0.35**	**0.19**	**0.33**	**0.26**	**0.25**	**0.05**	**0.68**
0.72	0.64	**0.47**	0.20	0.18	0.54	0.37	0.17	0.99
0.86	**0.96**	**0.38**	**0.74**	**0.70**	**0.72**	**0.79**	**0.61**	**0.18**
0.32	0.27	**0.66**	0.13	0.40	0.73	0.25	0.79	0.65
0.11	0.86	**0.64**	0.54	0.81	0.89	0.48	0.34	0.01
0.29	0.96	**0.86**	0.05	0.72	0.26	0.47	0.46	0.36
0.22	0.12	**0.78**	0.80	0.15	0.66	0.71	0.78	0.94
0.54	0.89	**0.40**	0.64	0.24	1.00	0.55	0.23	0.94
0.64	0.44	**0.82**	0.64	0.82	0.49	0.08	0.53	0.33
0.39	0.29	**0.42**	0.54	0.02	0.15	0.85	0.72	0.95
0.36	0.25	**0.03**	0.87	0.75	0.89	0.62	0.97	0.84
0.26	0.93	**0.53**	0.69	0.55	0.47	0.29	0.67	0.26
0.44	0.58	**0.26**	0.78	0.16	0.50	0.52	0.21	0.53
0.31	0.87	**0.60**	0.75	0.71	0.37	0.72	0.92	0.71
0.45	0.93	**0.65**	0.17	0.66	0.86	0.45	0.11	0.29
0.81	0.10	**0.68**	0.03	0.00	0.78	0.31	0.28	0.65
0.66	0.38	**0.95**	1.00	0.98	0.59	0.48	0.41	0.62
0.82	0.93	**0.04**	0.70	0.41	0.34	0.45	0.25	0.08
0.81	0.06	**0.89**	0.87	0.93	0.03	0.97	0.80	0.66
0.46	0.61	**0.40**	0.69	0.49	0.92	0.43	0.85	0.51
0.43	0.11	**0.08**	0.38	0.96	0.62	0.94	0.16	0.72
0.90	0.80	**0.98**	0.57	0.40	0.07	0.19	0.83	0.57
0.10	0.16	**0.74**	0.70	0.78	0.21	0.51	0.04	0.54
0.92	0.90	**0.80**	0.12	0.05	0.41	0.18	0.51	0.21
0.64	0.95	**0.02**	0.41	0.30	0.74	0.15	0.30	0.26
0.83	0.88	**0.10**	0.34	0.29	0.14	0.22	0.79	0.34
0.31	0.89	**0.19**	0.08	0.50	0.70	0.33	0.07	0.03
0.57	0.44	**0.43**	0.94	0.36	0.83	0.74	0.39	0.93

0.79	0.40	**0.23**	0.76	0.47	0.79	0.87	0.87	0.02
0.91	0.09	**0.15**	0.63	0.93	0.41	1.00	0.32	0.10
0.60	0.83	**0.26**	0.49	0.92	0.41	0.84	0.78	0.90
0.71	0.67	**0.59**	0.37	0.29	0.67	0.92	0.59	0.80
0.92	0.65	**0.55**	0.34	0.02	0.95	0.54	0.44	0.96
0.80	0.52	**0.83**	0.72	0.77	0.46	0.30	0.00	0.09
0.54	0.37	**0.45**	0.38	0.43	0.99	0.18	0.30	0.15
0.18	0.74	**0.88**	0.27	0.58	0.23	0.91	0.89	0.04
0.48	0.06	**0.89**	0.23	0.69	0.57	0.58	0.40	0.24
0.91	0.89	**0.19**	0.62	0.67	0.15	0.98	0.22	0.90
0.78	0.31	**0.57**	0.79	0.62	0.21	0.59	0.69	0.16
0.56	0.96	**0.23**	0.40	0.30	0.61	0.95	0.72	0.68
0.61	0.05	**0.77**	0.47	0.73	0.95	0.94	0.52	0.10
0.27	0.23	**0.47**	0.93	0.22	0.35	0.88	0.35	0.25
0.69	0.17	**0.11**	0.55	0.54	0.69	0.96	0.41	0.81
0.39	0.36	**0.88**	0.54	0.22	0.54	0.72	0.34	0.68
0.78	0.92	**0.65**	0.96	0.38	0.87	0.01	0.74	0.36
0.25	0.26	**0.15**	0.97	0.31	0.33	0.33	0.84	0.26
0.35	0.50	**0.45**	0.93	0.45	0.70	0.91	0.49	0.70
0.76	0.76	**0.75**	0.95	0.43	0.68	0.96	0.57	0.71
0.01	0.02	**0.35**	0.24	0.70	0.77	0.58	0.60	0.15
0.58	0.80	**1.00**	0.66	0.86	0.35	0.69	0.44	0.86
0.16	0.55	**0.80**	0.82	0.61	0.86	0.33	0.63	0.14
0.97	0.75	**0.02**	0.33	0.39	0.41	0.91	0.27	0.65
0.96	0.78	**0.36**	0.53	0.84	0.94	0.67	0.07	0.14
0.76	0.69	**0.72**	0.27	0.36	0.10	0.64	0.77	0.20
0.73	0.44	**0.62**	0.87	0.95	0.49	0.45	0.62	0.61
0.35	0.41	**0.35**	0.14	0.54	0.76	0.16	0.08	0.52
0.23	0.59	**0.48**	0.36	0.87	0.20	0.29	0.43	0.75
0.92	0.94	**0.34**	0.04	0.57	0.63	0.33	0.58	0.79
0.94	0.48	**0.25**	0.37	0.01	0.98	0.63	0.59	0.36
0.40	0.95	**0.00**	0.12	0.41	0.03	0.23	0.39	0.16
0.33	0.83	**0.76**	0.06	0.57	0.70	0.86	0.25	0.33
0.94	0.08	**0.21**	0.17	0.69	0.26	0.00	0.70	0.99
0.09	0.15	**0.91**	0.95	0.02	0.71	0.18	0.36	0.75
0.49	0.28	**0.01**	0.35	0.73	0.07	0.43	0.53	0.62
0.55	0.06	**0.29**	0.50	0.42	0.53	0.86	0.60	0.92
0.38	0.01	**0.98**	0.74	0.54	0.52	0.00	0.52	0.23
0.72	0.77	**0.98**	0.01	0.67	0.42	0.44	0.33	0.87
0.52	0.56	**0.55**	0.56	0.39	0.93	0.95	0.64	0.39
0.69	0.72	**0.28**	0.32	0.55	0.85	0.05	0.24	0.26
0.78	0.08	**0.42**	0.28	0.09	0.85	0.26	0.01	0.61
0.96	0.75	**0.89**	0.40	0.73	0.38	0.18	0.64	0.69
0.13	0.32	**0.91**	0.49	0.45	0.22	0.63	0.55	0.05
0.85	0.15	**0.27**	0.15	0.42	0.58	0.40	0.15	0.40
0.53	0.90	**0.87**	0.77	0.43	0.64	0.37	0.80	0.41
0.68	0.10	**0.13**	0.44	0.24	0.33	0.89	0.06	0.12
0.86	0.18	**0.76**	0.91	0.99	0.57	0.56	0.75	0.75
0.92	0.12	**0.66**	0.70	0.25	0.29	0.56	0.15	0.74
0.12	0.12	**0.79**	0.77	0.91	0.24	0.65	0.87	0.35
0.40	0.96	**0.37**	0.17	0.99	0.53	0.77	0.34	0.43
0.39	0.39	**0.75**	0.59	0.21	1.00	0.36	0.26	0.21

0.99	0.02	**0.53**	0.42	0.60	0.19	0.20	0.26	0.78
0.64	0.40	**0.39**	0.23	0.35	0.95	0.41	0.66	0.84
0.53	0.02	**0.04**	0.47	0.06	0.43	0.28	0.95	0.40
0.35	0.05	**0.71**	0.11	0.03	0.82	0.05	0.25	0.53
0.72	0.36	**0.34**	0.11	0.12	0.03	0.19	0.11	0.85
0.26	0.72	**0.70**	0.03	0.85	0.65	0.98	0.94	0.68
0.00	0.30	**0.15**	0.12	0.88	0.54	0.89	0.89	0.65
0.09	0.92	**0.26**	0.86	0.12	0.77	0.50	0.20	0.25
0.97	0.07	**0.51**	0.64	0.25	0.51	0.92	0.43	0.63
0.78	0.37	**0.61**	0.91	0.54	0.44	0.38	0.61	0.88
0.16	0.61	**0.60**	0.18	0.27	0.50	0.65	0.12	0.96
0.74	0.55	**0.82**	0.33	0.53	0.56	0.71	0.83	0.51
0.28	0.20	**0.95**	0.05	0.48	0.12	0.01	0.88	0.10
0.40	0.28	**0.89**	0.00	0.07	0.05	0.51	0.16	0.60
0.30	0.08	**0.48**	0.96	0.42	0.34	0.68	0.74	0.28
0.43	0.50	**0.94**	0.19	0.96	0.32	0.22	0.85	0.58
0.41	0.22	**0.81**	0.55	0.18	0.68	0.81	0.38	0.29
0.80	0.37	**0.18**	0.79	0.37	0.59	0.80	0.83	0.17
0.91	0.24	**0.31**	0.31	0.47	0.02	0.05	0.94	0.27
0.87	0.61	**0.95**	0.39	0.33	0.05	0.28	0.43	0.32
0.32	0.39	**0.19**	0.31	0.82	0.72	0.78	0.30	0.50
0.89	0.13	**0.25**	0.88	0.34	0.51	0.71	0.89	0.52
0.04	0.50	**0.74**	0.34	0.22	0.76	0.57	0.59	0.46
0.76	0.86	**0.83**	0.08	0.99	0.58	0.55	0.60	0.10
0.97	0.54	**0.53**	0.37	0.98	0.85	0.81	0.53	0.99
0.08	0.11	**0.81**	0.91	0.43	0.91	0.42	0.28	0.00
0.35	0.71	**0.66**	0.71	0.04	0.52	0.82	0.11	0.92

TRL+Spacebar, then CTRL-I
selection

after every blue row

j	k	l	m	n	o	p
0.84	**0.23**	0.23	0.56	0.18	0.32	0.62
0.22	**0.75**	0.21	0.25	0.39	0.18	0.16
0.59	**0.71**	0.94	0.79	0.61	0.54	0.72
0.26	**0.01**	0.83	0.91	0.01	0.17	0.50
0.96	**0.16**	0.14	0.83	0.30	0.33	0.24
0.49	**0.30**	0.49	0.62	0.56	0.79	0.01
0.46	**0.43**	0.81	0.47	0.23	0.09	0.78
0.10	**0.37**	0.45	0.27	0.10	0.06	0.25
0.71	**0.55**	0.69	0.41	0.18	0.93	0.86
0.04	**0.36**	**0.42**	**0.19**	**0.04**	**0.73**	**0.22**
0.58	**0.10**	0.92	0.29	0.22	0.33	0.25
0.75	**0.44**	**0.02**	**0.12**	**0.29**	**0.29**	**0.88**
0.38	**0.52**	0.71	0.00	0.14	0.98	0.37
0.70	**0.89**	0.47	0.08	0.43	0.40	0.26
0.63	**0.24**	0.35	0.51	0.34	0.22	0.40
0.25	**0.07**	0.58	0.80	0.49	0.69	0.06
0.84	**0.65**	0.22	0.81	0.45	0.64	0.07
0.36	**0.45**	0.65	0.50	0.97	0.75	0.47
0.66	**0.74**	0.35	0.47	0.11	0.80	0.18
0.04	**0.41**	0.92	0.98	0.26	0.44	0.80
0.98	**0.29**	0.07	0.77	0.89	0.36	0.38
0.91	**0.03**	0.04	0.14	0.96	0.00	0.23
0.55	**0.98**	0.81	0.66	0.93	0.38	0.57
0.26	**0.45**	0.32	0.31	0.16	0.10	0.73
0.48	**0.67**	0.81	0.38	0.46	0.45	0.64
0.78	**0.10**	0.36	0.97	0.15	0.93	0.13
0.15	**0.44**	0.09	0.27	0.86	0.06	0.73
0.50	**0.61**	0.20	0.54	0.96	0.38	0.60
0.42	**0.51**	0.64	0.52	0.60	0.88	0.80
0.01	**0.27**	0.64	0.14	0.14	1.00	0.35
0.54	**0.02**	0.10	0.01	0.12	0.35	0.75
0.62	**0.90**	0.70	0.60	0.40	0.03	0.97
0.69	**0.96**	0.60	0.01	0.81	0.20	0.70
0.53	**0.80**	0.08	0.72	0.68	0.60	0.59
0.75	**0.89**	0.68	0.68	0.76	0.17	0.27
0.44	**0.82**	0.69	0.51	0.83	0.87	0.08
0.60	**0.57**	0.46	0.48	0.96	0.82	0.46

0.84	**0.73**	0.54	0.12	0.13	0.92	0.02
0.97	**0.63**	0.34	0.48	0.26	0.33	0.10
0.25	**0.17**	0.97	0.16	0.44	0.25	0.67
0.50	**0.42**	0.81	0.18	0.56	0.65	0.39
0.35	**0.48**	0.62	0.81	0.31	0.10	0.87
0.38	**0.90**	0.50	0.44	0.40	0.86	0.41
0.36	**0.19**	0.44	0.58	0.82	0.01	0.17
0.99	**0.09**	0.81	0.57	0.10	0.47	0.39
0.16	**0.55**	0.04	0.13	0.40	0.96	0.11
0.38	**0.44**	0.87	0.12	0.79	0.65	0.11
0.63	**0.19**	0.18	0.15	0.77	0.47	0.41
0.48	**0.63**	0.52	0.81	0.91	0.43	0.52
0.07	**0.77**	0.94	0.97	0.40	0.64	0.82
0.58	**0.56**	0.21	0.09	0.86	0.55	0.67
0.48	**0.43**	0.41	0.99	0.46	0.77	0.79
0.32	**0.48**	0.05	0.93	0.09	0.31	0.69
0.90	**0.03**	0.57	0.56	0.12	0.69	0.14
0.61	**0.53**	0.94	0.16	0.78	0.96	0.41
0.01	**0.80**	0.65	0.75	0.21	0.25	0.79
0.53	**0.36**	0.45	0.12	0.28	0.89	0.37
0.94	**0.35**	0.23	0.51	0.17	0.55	0.25
0.35	**0.90**	0.83	0.40	0.82	0.72	0.25
0.17	**0.97**	0.09	0.76	0.20	0.37	0.35
0.18	**0.77**	0.96	0.62	0.52	0.49	0.71
0.26	**0.86**	0.19	0.45	0.16	0.21	0.76
0.84	**0.62**	0.22	0.81	0.39	0.38	0.70
0.40	**0.54**	0.03	0.87	0.83	0.99	0.37
0.55	**0.45**	0.57	0.83	0.04	0.61	0.74
0.65	**0.54**	0.78	0.99	0.31	0.36	0.41
0.08	**0.97**	0.44	0.56	0.96	0.39	0.38
0.28	**0.29**	0.93	0.93	0.37	0.94	0.32
0.38	**0.44**	0.45	0.91	0.63	0.56	0.29
0.24	**0.41**	0.91	0.78	0.07	0.44	0.99
0.36	**0.88**	0.52	0.42	0.01	0.83	0.70
0.77	**0.08**	0.62	0.85	0.99	0.03	0.89
0.60	**0.95**	0.92	0.58	0.41	0.44	0.49
0.32	**0.51**	0.73	0.43	0.18	0.28	0.97
0.56	**0.02**	0.20	0.86	1.00	0.02	0.05
0.59	**0.47**	0.35	0.79	1.00	0.94	0.42
0.11	**0.49**	0.17	0.68	0.82	0.51	0.86
0.02	**0.03**	0.85	0.90	0.10	0.56	0.75
0.88	**0.69**	0.89	0.05	0.82	0.40	0.22
0.78	**0.60**	0.17	0.78	0.76	0.22	0.95
0.01	**0.76**	0.45	0.14	0.73	0.23	0.62
0.46	**0.83**	0.08	0.02	0.97	0.58	0.98
0.80	**0.43**	0.03	0.66	0.75	0.52	0.36
0.21	**0.88**	0.30	0.06	0.17	0.98	0.25
0.81	**0.12**	0.52	0.98	0.01	0.38	0.36
0.63	**0.35**	0.96	0.88	0.44	0.38	0.97
0.56	**0.74**	0.05	1.00	0.70	0.75	0.42
0.62	**0.02**	0.14	0.84	0.04	0.61	0.39
0.73	**0.05**	0.82	0.68	0.83	0.55	0.02

0.13	**0.95**	0.70	0.13	0.49	0.79	0.82
0.89	**0.51**	0.31	0.42	0.79	0.53	0.41
0.70	**0.08**	0.29	0.43	0.31	0.39	0.65
0.17	**0.48**	0.51	0.06	0.75	0.08	0.05
0.99	**0.24**	0.34	0.51	0.86	0.38	0.67
0.19	**0.15**	0.51	0.25	0.62	0.92	0.42
0.80	**0.85**	0.08	0.92	0.82	0.48	0.35
0.21	**0.67**	0.67	0.36	0.58	0.83	0.27
0.42	**0.50**	0.42	0.07	0.18	0.31	0.18
0.86	**0.38**	0.05	0.18	0.29	0.79	0.54
0.50	**0.49**	0.86	0.86	0.10	0.60	0.73
0.28	**0.75**	0.79	0.37	0.01	0.91	0.31
0.39	**0.59**	0.75	0.67	0.58	0.29	0.52
0.75	**0.58**	0.25	0.80	0.30	0.05	0.70
0.27	**0.86**	0.93	0.08	0.42	0.52	0.57
0.40	**0.55**	0.95	0.69	0.10	0.88	0.43
0.14	**0.75**	0.05	0.90	0.91	0.76	0.20
0.64	**0.59**	0.11	0.32	0.27	0.70	0.07
0.56	**0.07**	0.91	0.65	0.77	0.32	0.88
0.93	**0.22**	0.77	0.51	0.85	0.40	0.31
0.48	**0.47**	0.63	0.01	0.68	0.01	0.66
0.68	**0.41**	0.81	0.99	0.67	0.22	0.80
0.42	**0.08**	0.83	0.09	0.60	0.17	0.69
0.22	**0.86**	0.90	0.37	0.19	0.22	0.78
0.76	**0.91**	0.13	0.97	0.04	0.31	0.03
0.10	**0.70**	0.86	0.47	0.04	0.38	0.54
0.90	**0.82**	0.72	0.93	0.63	0.90	0.94

Absolute vs. Relative references

To create an absolute reference, you insert a dollar sign ($) before the column a
For example, the cell reference $B$8 is an absolute reference, whereas the cell
If you copy a formula that contains the absolute reference $B$8 to another cell,
On the other hand, if you copy a formula containing the relative reference B8 to

Relative	**formula**	**result**		
1	=C10	1		Both the ro
2		2		In this case
3		3		
4		4		
5		5		

Absolute	**formula**	**result**		
1	=$C$10	0		
2		0		When copy
3		0		
4		0		
5		0		

To create a reference to another sheet, include the sheet name, followed by an

and row of the cell reference.
 reference B8 is a relative reference.
 the cell reference $B$8 does not change.
 another cell, the reference B8 changes.

w and colums change based on their relative postions
, as the row changes, so does the row's relative reference

ed down, the reference stays the same

excalimation mark (!), then the cell range

Find and Replace

What: How to use the Find and Replace func

Why: Can use this to quickly manipulate da

start by going to either:
Edit -> Find
Edit -> Replace

Tips:
If a highlighted region is selected, Ex

Wildcard character

Use
? (question mark)
* (asterisk)
~ (tilde) followed by ?, *, or ~

important:
Wildcards work the same way for data

ctionality
ata
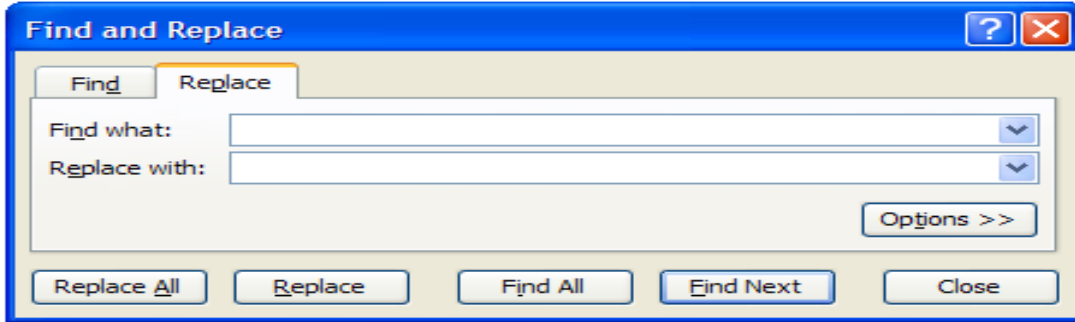
cel will only search that region, otherwise, Excel will search the entire sheet by default

rs

To find
Any single character
For example, sm?th finds "smith" and "smyth"
Any number of characters
For example, *east finds "Northeast" and "Southeast"
A question mark, asterisk, or tilde
For example, fy91~? finds "fy91?"

a filters

Dates and Time formats in Excel
What:　　Excel has specific methods for storing Dates and times
Why:　　Understanding how to manipulate date formats is a common necessity when creating re
Source:　　http://www.excelwiki.com/Excel/DateAndTimeBasics

How Excel stores dates and times.
The basic unit of time in Excel is a day.
A day equals 1, half a day is .5 and an hour time interval is therefore 1/24=0.04166666
Dates are stored as serial values with time starting on January 1, 1900.
January 1,1900 equals 1 and December 1, 2005 equals 38,687 as it 38,687 days after Ja
One hour past midnight is serial value 38687.041666667 and Noon on December 1, 200
Storing dates as sequential numbers makes it easy to add, subtract and determine time

Dates entered without a specified year are assumed to be in the current year. A date en
Dates entered with a 2 digit year are stored as pre-2000 dates if the year is between 30
28/02/05 is in year 2005, 28/02/98 is in 1998, 28/02/29 is in 2029 and 28/02/30 is in 19.

The 1904 Date System
Macintosh computers typically use the 1904 date system with January 2, 1904 equal to
This can cause date discrepancies if files are transferred from Mac to Windows or vice v
Date values will change by 4 years and 1 day.

Excel users in Windows may also inadvertently be using the 1904 date system and
this will also cause dates to change if the file is sent to a user on the more common 190

Click on **Tools-Options-Calculation** and ensure that the 1904 date system checkbox i

How Excel displays dates and times.
Dates are stored in Excel cells as serial values but can be displayed in various date form

Each of the dates at the right has an underlying serial value of 38598.
Note that the time value is midnight (at the start of the day).

The examples on the right use the US date format mm/dd/yyyy
The date format can be changed to the UK date format (dd/mm/yyyy) by changing the o

Excel will recognize an input that is in a date format.
If a user inputs **Dec 1, 2005** or **10 May 2004** Excel will recognize this as a date,
store it in the cell as a serial value, and display it in a date format.

Excel sometimes makes *mistakes*. A user may enter *3-4*, meaning a value between 3 ar
but Excel will interpret this as March 4th and store the input as 38415. This can be reme

eports in excel

7

anuary 1,1900.
05 is 38687.5.
e intervals between two dates or times.

ntered as Feb-28 (in 2005) is stored as 28/2/2005 or date serial 38411.
) and 99 or as post-2000 dates if the year is between 0 and 29.
30.

1.
ersa.

)0 date system.

is unchecked.

---
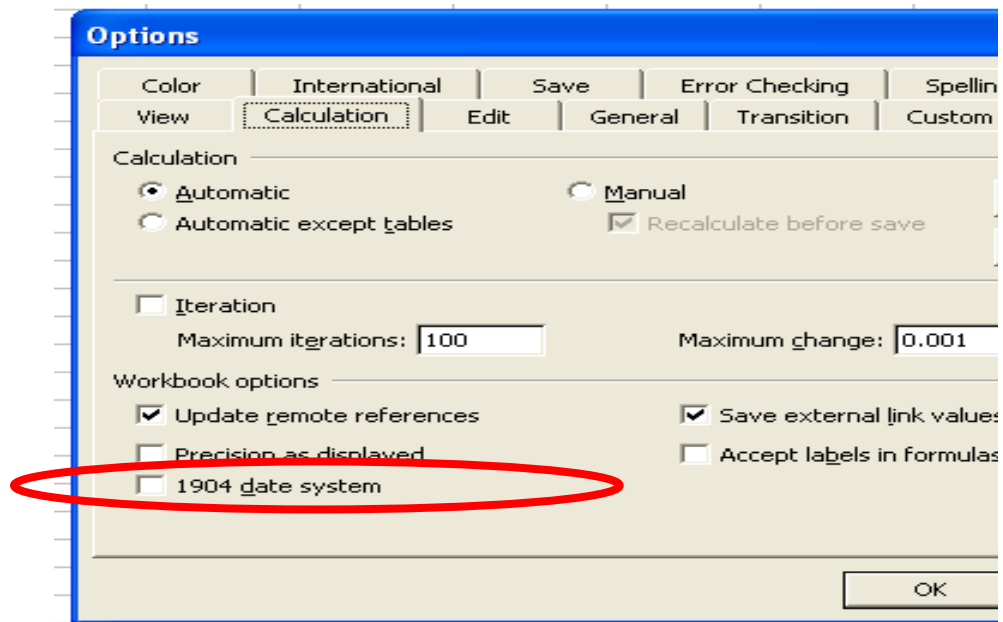
nats by clicking **Format-Cells-Number-Date-Type**.

option in the Locale box.

9/3/2005
Saturday, September 03, 2005
9/3
9/3/05
3-Sep
3-Sep-05
03-Sep-05
9/3/05 12:00 AM
9/3/05 0:00
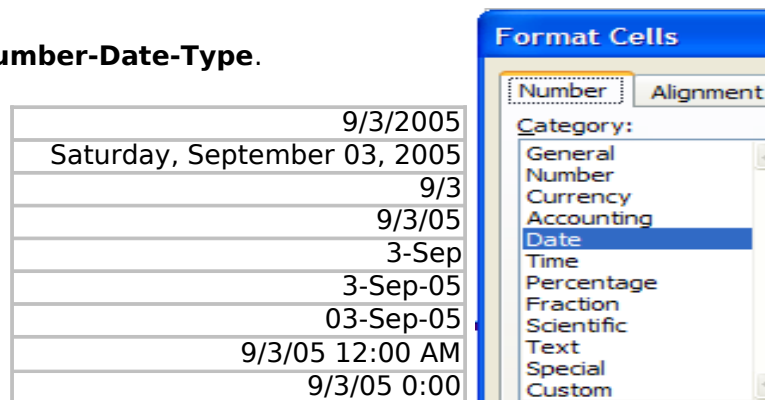
9/3/2005

nd 4,
edied my placing a quote before the 3-4 input. i.e. '3-4

Date formats display d
items that have an ast
with the operating syst

Dialog 1 (top):

Security

Lists | Chart

Calc Now (F9)

Calc Sheet

Cancel

Dialog 2 (bottom):

Font | Border | Patterns | Protection

Sample
Saturday, September 03, 2005

Type:
*3/14/2001
*Wednesday, March 14, 2001
3/14
3/14/01
03/14/01
14-Mar
14-Mar-01

Locale (location):
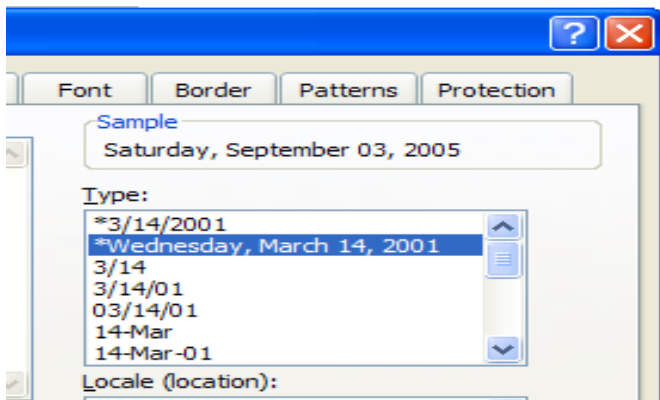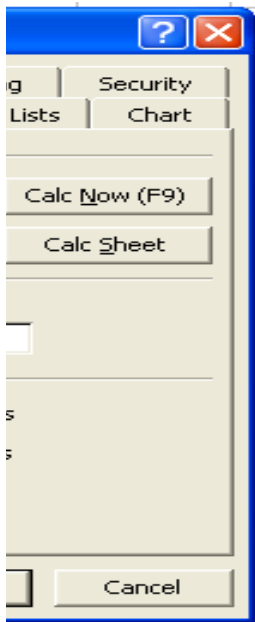
English (United States)

ate and time serial numbers as date values. Except for
erisk (*), applied formats do not switch date orders
tem.

OK   Cancel

Function basics

What: Excel Function basics and syntax
Why: Understand what all those different brackets and punctuation means

Function Name   optional argument

=sum(number1,[number2],...)
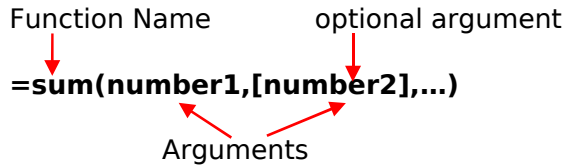
            Arguments

            Functions always begin with a "="
            Arguments separated by a comma
            Optional arguments are enclosed in [] brackets
            Type "=Function Name(" to get the signature

To find a list of all excel functions, go to **Insert-->Function**

Character Used to:
$ Turns a relative reference to an absolute reference
'   If a sheet name has a space between it, Excel will automatically put
!   Placed after a string to signify a reference to a sheet with that name
{ }   Enclose "array" formulas. These braces are added when you hit ctrl+

Insert Function

Search for a function:

Type a brief description of what you want to do and then click Go   [Go]

Or select a category: All

Select a function:

ABS
ACCRINT
ACCRINTM
ACOS
ACOSH
ADDRESS
AMORDEGRC

ABS(number)
Returns the absolute value of a number, a number without its sign.

Help on this function   [OK]   [Cancel]
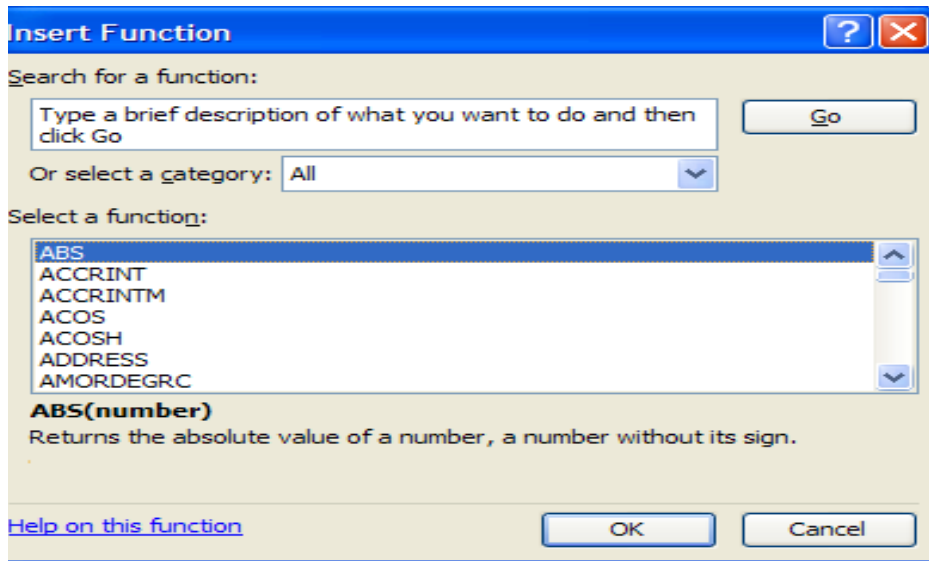
a ' ' around the sheet name when it is referenced from another sheet

+shift+enter; you must do this every time you enter or change an array formula

Error Checking

Errors happen, but if you know why they are happening, they can help you to understand your da
There are 7 different types of errors in Excel:

    #NULL! Occurs when you specify an intersection of two areas that do not intersect. The inte
     #NUM! Occurs when a number is divided by zero (0).
   #VALUE! Occurs when the wrong type of argument is used.
     #REF! Occurs when a cell reference is not valid
   #NAME? Occurs when Microsoft Excel doesn't recognize text in a formula.
     #NUM! Occurs with invalid numeric values in a formula or function.
      #N/A Occurs when a value is not available to a function or formula.

to find if a value in a cell is an error, use the ISERROR() function
to create a #N/A, use the NA() function

Example

Standard problem:

	1	25
	2	30
	3	#N/A
	4	15
total		**#N/A**

	1	25
	2	30
	3	#N/A
	4	15
total		**#N/A**

The error messes up computations

ta

ersection operator is a space between references.

error check   formula used:

25
30
15
70

=IF(ISERROR(G18),"",G18)

Can now find the total despite the bad data

Text Manipulation

What? Formulas used to work with text strings, including RIGHT(), LEFT

Why? These functions allow you to parse and combine text strings. Fre

=RIGHT(text, [num-characters])
Takes num-characters from the right side of text

Text	Formula
Bill Clinton	=RIGHT(B9,4)
Bill Clinton	=RIGHT(B10,1)

=LEFT(text, [num-characters])
Takes num-characters from the left side of text

Text	Formula
Bill Clinton	=LEFT(B16,4)
Bill Clinton	=LEFT(B17,1)

=MID(text, start-position, num-characters)
Takes num-characters from text starting at start-positio
Use a large number (like 999) for num-characters if you
characters in a string

Text	Formula
Bill Clinton	=MID(B24,4,4)
Bill Clinton	=MID(B25,FIND(" ",B25),999)

=text1&text2
Glues text1 and text2 together

Text	Formula
Bill Clinton	=B31&" was a US president"

=FIND(text-to-find, within-text, [start-position])
Finds text-to-find within within-text and returns the chai
For basic cases, you don't need start-position

Text	Formula
Bill Clinton	=FIND("l",B38)
Bill Clinton	=FIND("n",B39,10)
Bill Clinton	=FIND("X",B40)

‾(), MID(), and "&" to glue together text strings
quently useful when working with pulled from other data sources

Result
nton
n

Result
Bill
B

_n_
want to get all the remaining

Result
l Cl
 Clinton   <-- Take all the characters starting fro

Result
Bill Clinton was a US president

racter location of the text

Result
3
12   <-- find a "n" starting from the 10th ch
#VALUE!   <-- If text-to-find is not in the string FI

ɔm the first space

ɔharacter(the "t" in Clinton)
ND returns a value error

List of all te

Function
ASC
BAHTTEXT
CHAR
CLEAN
CODE
CONCATENATE
DOLLAR
EXACT
FIND
FIXED
JIS
LEFT
LEN
LOWER
MID
PHONETIC
PROPER
REPLACE
REPT
RIGHT
SEARCH
SUBSTITUTE
T
TEXT
TRIM
UPPER
VALUE

&

'

" "

xt functions

Description
Changes full-width (double-byte) English letters or katakana within a character string to half-
Converts a number to text, using the ß (baht) currency format
Returns the character specified by the code number
Removes all nonprintable characters from text
Returns a numeric code for the first character in a text string
Joins several text items into one text item
Converts a number to text, using the $ (dollar) currency format
Checks to see if two text values are identical
Finds one text value within another (case-sensitive)
Formats a number as text with a fixed number of decimals
Changes half-width (single-byte) English letters or katakana within a character string to full-
Returns the leftmost characters from a text value
Returns the number of characters in a text string
Converts text to lowercase
Returns a specific number of characters from a text string starting at the position you specify
Extracts the phonetic (furigana) characters from a text string
Capitalizes the first letter in each word of a text value
Replaces characters within text
Repeats text a given number of times
Returns the rightmost characters from a text value
Finds one text value within another (not case-sensitive)
Substitutes new text for old text in a text string
Converts its arguments to text
Formats a number and converts it to text
Removes spaces from text, except for single spaces between words
Converts text to uppercase
Converts a text argument to a number

Adds strings of text together
Anything following the ' sign is converted to a string. Useful if trying to write the equals sign
Use double quotes (" ") to signify a string. Example: 45 is a number, but "45" is a string of chara

acters

Text Manipulation

exercise 1: Capture the year from the election column
exercise 2: Use a text formula to get rid of the * in front of the president's
exercise 3: Create a sentence that looks like this "Bill Clinton won the 199(
(Answers below the fold)

President	Vote %	Election	Exercise 1
* James K. Polk	49.3%	1844 election	
* Zachary Taylor	47.3%	1848 election	
* James Buchanan	45.3%	1856 election	
* Abraham Lincoln	39.9%	1860 election	
* James Garfield	48.3%	1880 election	
* Grover Cleveland	48.8%	1884 election	
* Grover Cleveland	46.0%	1892 election	
* Woodrow Wilson	41.8%	1912 election	
* Woodrow Wilson	49.3%	1916 election	
* Harry S. Truman	49.7%	1948 election	
* John F. Kennedy	49.7%	1960 election	
* Richard Nixon	43.2%	1968 election	
* Bill Clinton	42.9%	1992 election	
* Bill Clinton	49.2%	1996 election	

Answers

Exercise 1	**Exercise 2**	**Exercise 3**
=LEFT(D8,4)	=MID(B8,3,50)	=F8&" won the "&E8&" election with "&C8&

name

6 election with 49.2% of the popular vote"

Exercise 2   **Exercise 3**

" of the popular vote"

Text Manipulation
(Answers to the right)

exercise 1: create a column containing the full name:

First Name	Last Name
Tammy	Smith
Ashley	Hall
Brandon	Johnson
Jeremy	Halverson

Name

exercise 2: Split the name into 2 different columns:

Name
Tammy Smith
Ashley Hall
Brandon Johnson
Jeremy Halverson

First Name Last Name

exercise 3: Split the name into 2 different columns:

Name
Smith, Tammy
Hall, Ashley
Johnson, Brandon
Halverson, Jeremy

First Name Last Name

exercise 4: Create a column that contains the initials of the gi

Name
Tammy Smith
Ashley Hall
Brandon Johnson
Jeremy Halverson

Initials

iven names:

Answers

=B5&" "&C5

=LEFT(B14,FIND(" ",B14)-1)   =MID(B14,FIND(" ",B14)+1,20)

=MID(B23,FIND(" ",B23)+1,20)   =LEFT(B23,FIND(",",B23)-1)

=LEFT(B32,1)&MID(B32,FIND(" ",B32)+1,1)

=VLOOKUP(lookup_value,table_array,col_index_num,range_

Value you are trying to match

Table of data you are looking in to find the match

The column of the value you want to return

Should always b

The table_array should always be an absolute reference ($ before colur
The col_index_num is relative to the table_array, not the column of the

Team
BAL

Team
ARI
ATL
BAL
BUF
CAR
CHI

Example: This vlookup returns the conference Baltimore belongs to:
=VLOOKUP(D14,$F$14:$G$19,2,FALSE)

remember that these dollar sigr

since this is a relative reference, it will change as you copy and paste this formu

lookup)

be "FALSE"

mn and row values)
Excel worksheet

Conference
National
National
American
American
National
National

is nail down the row and column references
ıla down or across a block of data

V-Lookups

exercise 1: Find the corresponding conference each player

Table 1:

Player	Position	Team	Catches	Yards
Santana Moss	WR	WAS	67	950
Drew Bennett	WR	TEN	72	1114
Michael Clayton	WR	TB	84	1253

is in

Conference?

Table 2:

Team	Conference
ARI	National
ATL	National
BAL	American
BUF	American
CAR	National
CHI	National
CIN	American
CLE	American
DAL	National
DEN	American
DET	National
GB	National
HOU	American
IND	American
JAC	American
KC	American
MIA	American
MIN	National
NE	American
NO	National
NYG	National
NYJ	American
OAK	American
PHI	National
PIT	American
SD	American
SEA	National
SF	National
STL	National
TB	National
TEN	American
WAS	National

V-Lookups

exercise 2: Find the corresponding conference each player

Table 1:

Player	Position	Team	Catches	Yards
Santana Moss	WR	WAS	67	950
David Patten	WR	WAS	68	853
Darnerien McCa	WR	WAS	28	355
James Thrash	WR	WAS	21	256
Taylor Jacobs	WR	WAS	26	275
Kevin Dyson	WR	WAS	14	158
Jimmy Farris	WR	WAS	2	25
Chris Cooley	TE	WAS	45	408
Robert Royal	TE	WAS	8	83
Jabari Holloway	TE	WAS	5	52
Brian Kozlowski	TE	WAS	6	58
Mike Sellers	TE	WAS	2	29
Billy Baber	TE	WAS	2	21
Drew Bennett	WR	TEN	72	1114
Tyrone Calico	WR	TEN	55	852
Brandon Jones	WR	TEN	38	436
Courtney Roby	WR	TEN	32	393
Roydell Williams	WR	TEN	11	94
Ben Troupe	TE	TEN	43	411
Erron Kinney	TE	TEN	38	335
Bo Scaife	TE	TEN	9	84
Ben Hall	TE	TEN	0	0
Steve Cucci	TE	TEN	0	0
Michael Clayton	WR	TB	84	1253
Joey Galloway	WR	TB	54	831
Ike Hilliard	WR	TB	47	501
Edell Shepherd	WR	TB	2	19
Anthony DiCosn	WR	TB	0	0
Anthony Becht	TE	TB	28	245
Alex Smith	TE	TB	17	189
Will Heller	TE	TB	7	56
Dave Moore	TE	TB	4	40
Nate Lawrie	TE	TB	2	23
Torry Holt	WR	STL	96	1384
Isaac Bruce	WR	STL	75	1060
Kevin Curtis	WR	STL	60	727
Shaun McDonald	WR	STL	41	473
Dane Looker	WR	STL	17	192
Mike Furrey	WR	STL	10	98
Brandon Manum	TE	STL	18	190
Roland Williams	TE	STL	4	28
Dauntae Finger	TE	STL	0	0
Mike Brake	TE	STL	0	0
Erik Jensen	TE	STL	0	0

Brandon Lloyd	WR	SF	68	935
Johnnie Morton	WR	SF	54	703
Arnaz Battle	WR	SF	44	468
Rashaun Woods	WR	SF	31	336
Jason McAddley	WR	SF	6	83
P.J. Fleck	WR	SF	9	74
Marcus Maxwell	WR	SF	4	38
Javin Hunter	WR	SF	2	12
Eric Johnson	TE	SF	66	649
Steve Bush	TE	SF	12	74
Aaron Walker	TE	SF	9	111
Neil Johnson	TE	SF	0	0
Patrick Estes	TE	SF	0	0
Darrell Jackson	WR	SEA	83	1232
Bobby Engram	WR	SEA	51	645
Jerome Pathon	WR	SEA	32	449
Bobby Shaw	WR	SEA	35	439
Joe Jurevicius	WR	SEA	36	422
Jerheme Urban	WR	SEA	12	232
Alex Bannister	WR	SEA	4	46
Jerramy Stevens	TE	SEA	38	397
Itula Mili	TE	SEA	24	268
Ryan Hannam	TE	SEA	8	116
Brock Edwards	TE	SEA	0	0
Calen Powell	TE	SEA	0	0
Keenan McCardell	WR	SD	71	898
Reche Caldwell	WR	SD	51	796
Eric Parker	WR	SD	36	541
Kassim Osgood	WR	SD	19	396
Vincent Jackson	WR	SD	11	123
Malcom Floyd	WR	SD	3	49
Antonio Gates	TE	SD	78	879
Ryan Krause	TE	SD	6	89
Justin Peelle	TE	SD	10	81
Cody McCarty	TE	SD	0	0
Danny Young	TE	SD	0	0
Hines Ward	WR	PIT	91	1107
Antwaan Randle	WR	PIT	68	897
Cedrick Wilson	WR	PIT	50	622
Chris Doering	WR	PIT	12	144
Lee Mays	WR	PIT	11	135
Fred Gibson	WR	PIT	4	34
Heath Miller	TE	PIT	38	373
Jerame Tuman	TE	PIT	9	101
Walter Rasby	TE	PIT	6	58
Matt Cushing	TE	PIT	1	9
Matt Kranchick	TE	PIT	0	0
Terrell Owens	WR	PHI	86	1261
Greg Lewis	WR	PHI	66	764
Reggie Brown	WR	PHI	37	467
Todd Pinkston	WR	PHI	0	0
Billy McMullen	WR	PHI	4	29

Name	Pos	Team	Rec	Yds
L.J. Smith	TE	PHI	42	487
Chad Lewis	TE	PHI	25	255
James Whalen	TE	PHI	17	145
Mike Bartrum	TE	PHI	4	32
Andy Thorn	TE	PHI	0	0
Randy Moss	WR	OAK	93	1311
Jerry Porter	WR	OAK	72	1023
Ronald Curry	WR	OAK	37	486
Doug Gabriel	WR	OAK	16	270
Alvis Whitted	WR	OAK	17	250
John Stone	WR	OAK	3	54
Johnnie Morant	WR	OAK	2	45
Randal Williams	WR	OAK	1	17
Teyo Johnson	TE	OAK	25	266
Courtney Ander	TE	OAK	23	315
Josh Norman	TE	OAK	7	91
Rickey Dudley	TE	OAK	9	94
John Paul Foschi	TE	OAK	0	0
Laveranues Col	WR	NYJ	86	1196
Justin McCarein	WR	NYJ	64	879
Wayne Chrebet	WR	NYJ	32	413
Jerricho Cotcher	WR	NYJ	31	306
Jonathan Carter	WR	NYJ	12	209
Doug Jolley	TE	NYJ	32	340
Chris Baker	TE	NYJ	28	278
Joel Dreessen	TE	NYJ	0	0
Matthew Chila	TE	NYJ	0	0
James Dearth	TE	NYJ	0	0
Plaxico Burress	WR	NYG	74	1057
Amani Toomer	WR	NYG	68	973
Tim Carter	WR	NYG	32	440
David Tyree	WR	NYG	20	274
Willie Ponder	WR	NYG	18	197
Jamaar Taylor	WR	NYG	8	182
Zuriel Smith	WR	NYG	2	23
Jeremy Shockey	TE	NYG	64	697
Visanthe Shianc	TE	NYG	8	42
Chris Luzar	TE	NYG	1	12
Darius Williams	TE	NYG	0	0
Beau Fullerton	TE	NYG	0	0
Joe Horn	WR	NO	91	1289
Donte' Stallwort	WR	NO	59	861
Az-Zahir Hakim	WR	NO	33	432
Devery Henders	WR	NO	34	376
Talman Gardner	WR	NO	18	234
Michael Lewis	WR	NO	11	221
Nate Poole	WR	NO	12	142
Boo Williams	TE	NO	28	298
Ernie Conwell	TE	NO	24	284
Shad Meier	TE	NO	21	167
Zach Hilton	TE	NO	0	0
Lamont Hall	TE	NO	2	4

Deion Branch	WR	NE	74	1009
David Givens	WR	NE	63	933
David Terrell	WR	NE	37	475
Bethel Johnson	WR	NE	26	384
Troy Brown	WR	NE	18	181
Tim Dwight	WR	NE	13	169
Cedric James	WR	NE	0	10
Ben Watson	TE	NE	39	357
Daniel Graham	TE	NE	27	293
Christian Fauria	TE	NE	14	146
Jed Weaver	TE	NE	9	111
John Lumpkin	TE	NE	0	0
Nate Burleson	WR	MIN	74	1132
Troy Williamson	WR	MIN	58	794
Marcus Robinso	WR	MIN	48	654
Travis Taylor	WR	MIN	56	713
Kelly Campbell	WR	MIN	18	336
Daryl Jones	WR	MIN	3	30
Avion Black	WR	MIN	2	17
Keenan Howry	WR	MIN	4	18
Jermaine Wiggir	TE	MIN	35	347
Jimmy Kleinsass	TE	MIN	29	287
Richard Owens	TE	MIN	9	76
Sean Berton	TE	MIN	6	57
Jeff Dugan	TE	MIN	0	0
Chris Chambers	WR	MIA	74	1038
Marty Booker	WR	MIA	63	805
David Boston	WR	MIA	42	510
Derrius Thomps	WR	MIA	24	348
Bryan Gilmore	WR	MIA	12	158
Danny Farmer	WR	MIA	3	38
Kendall Newson	WR	MIA	1	28
Randy McMicha	TE	MIA	65	682
Donald Lee	TE	MIA	12	116
Alex Holmes	TE	MIA	0	0
Ed Perry	TE	MIA	0	0
Jason Rader	TE	MIA	0	0
Eddie Kennison	WR	KC	59	996
Samie Parker	WR	KC	45	685
Marc Boerigter	WR	KC	22	434
Freddie Mitchell	WR	KC	26	376
Dante Hall	WR	KC	24	276
Craphonso Thor	WR	KC	19	241
Chris Horn	WR	KC	18	205
Tony Gonzalez	TE	KC	75	933
Kris Wilson	TE	KC	21	201
Jason Dunn	TE	KC	16	114
Edwin Thompso	TE	KC	0	0
Mike Kallfelz	TE	KC	0	0
Jimmy Smith	WR	JAC	79	1151
Reggie Williams	WR	JAC	58	737
Matt Jones	WR	JAC	33	349

Ernest Wilford	WR	JAC	27	379
Troy Edwards	WR	JAC	32	372
Cortez Hankton	WR	JAC	16	149
Chris Cole	WR	JAC	2	18
George Wrighst	TE	JAC	18	165
Kyle Brady	TE	JAC	20	197
Todd Yoder	TE	JAC	15	160
Brian Jones	TE	JAC	6	87
Cam Quayle	TE	JAC	0	0
Marvin Harrison	WR	IND	92	1194
Reggie Wayne	WR	IND	75	1159
Brandon Stokley	WR	IND	63	986
Troy Walters	WR	IND	11	134
Aaron Moorehea	WR	IND	5	62
Brad Pyatt	WR	IND	3	10
Dallas Clark	TE	IND	41	535
Ben Hartsock	TE	IND	4	33
Ben Utecht	TE	IND	0	0
Joey Hawkins	TE	IND	0	0
Joe Kuykendall	TE	IND	0	0
Andre Johnson	WR	HOU	90	1324
Jabar Gaffney	WR	HOU	53	683
Corey Bradford	WR	HOU	29	467
Jerome Mathis	WR	HOU	28	394
Derick Armstron	WR	HOU	29	392
Reggie Swinton	WR	HOU	10	112
Billy Miller	TE	HOU	22	229
Marcellus Rivers	TE	HOU	9	79
Mark Bruener	TE	HOU	5	37
Bennie Joppru	TE	HOU	0	0
Aaron Halterma	TE	HOU	0	0
Javon Walker	WR	GB	84	1330
Donald Driver	WR	GB	76	1060
Robert Ferguson	WR	GB	29	413
Antonio Chatma	WR	GB	19	215
Terrence Murph	WR	GB	16	171
Craig Bragg	WR	GB	7	101
Andrae Thurma	WR	GB	11	84
Bubba Franks	TE	GB	37	331
David Martin	TE	GB	14	104
Ben Steele	TE	GB	5	48
Alphonso Collins	TE	GB	0	0
Steve Fleming	TE	GB	0	0
Roy Williams	WR	DET	78	1185
Charles Rogers	WR	DET	69	762
Mike Williams	WR	DET	61	789
Tai Streets	WR	DET	32	349
Kevin Johnson	WR	DET	37	399
Scott Vines	WR	DET	3	59
David Kircus	WR	DET	3	54
Eddie Drummor	WR	DET	0	0
Marcus Pollard	TE	DET	35	401

Casey Fitzsimm	TE	DET	14	119
Justin Swift	TE	DET	2	17
Khary Jackson	TE	DET	0	0
Leonard Stephe	TE	DET	0	4
Ashley Lelie	WR	DEN	65	1056
Rod Smith	WR	DEN	78	1055
Darius Watts	WR	DEN	48	597
Jerry Rice	WR	DEN	40	543
Nate Jackson	WR	DEN	8	72
Triandos Luke	WR	DEN	8	73
Jeb Putzier	TE	DEN	38	425
Stephen Alexan	TE	DEN	38	385
Patrick Hape	TE	DEN	8	38
Dwayne Carswe	TE	DEN	5	21
Mike Leach	TE	DEN	0	0
Keyshawn Johns	WR	DAL	73	967
Terry Glenn	WR	DAL	57	854
Quincy Morgan	WR	DAL	47	611
Patrick Crayton	WR	DAL	15	202
Terrance Coppe	WR	DAL	10	126
Ahmad Merritt	WR	DAL	6	50
Jason Witten	TE	DAL	79	863
Dan Campbell	TE	DAL	16	142
Tony Curtis	TE	DAL	0	0
Sean Ryan	TE	DAL	0	0
Brett Pierce	TE	DAL	0	0
Antonio Bryant	WR	CLE	66	977
Braylon Edward	WR	CLE	67	827
Andre Davis	WR	CLE	50	754
Dennis Northcut	WR	CLE	47	641
Frisman Jackson	WR	CLE	9	122
Steve Heiden	TE	CLE	26	219
Aaron Shea	TE	CLE	30	258
Keith Heinrich	TE	CLE	4	28
Keith Willis	TE	CLE	0	0
Ivory McCoy	TE	CLE	0	0
Chad Johnson	WR	CIN	89	1328
T.J. Houshmand	WR	CIN	74	956
Peter Warrick	WR	CIN	50	548
Kelley Washingt	WR	CIN	37	327
Chris Henry	WR	CIN	17	184
Kevin Walter	WR	CIN	12	84
Cliff Russell	WR	CIN	2	17
Matt Schobel	TE	CIN	22	223
Reggie Kelly	TE	CIN	15	114
Tony Stewart	TE	CIN	11	96
Brad St. Louis	TE	CIN	0	0
Michael Woolrid	TE	CIN	0	0
Muhsin Muhamr	WR	CHI	66	971
Justin Gage	WR	CHI	41	499
Bernard Berrian	WR	CHI	25	371
Bobby Wade	WR	CHI	28	324

Eddie Berlin	WR	CHI	12	188
Mark Bradley	WR	CHI	21	198
Ron Johnson	WR	CHI	4	42
Desmond Clark	TE	CHI	26	290
Dustin Lyman	TE	CHI	13	100
Darnell Sanders	TE	CHI	6	37
John Gilmore	TE	CHI	2	24
John Owens	TE	CHI	2	14
Steve Smith	WR	CAR	81	1124
Keary Colbert	WR	CAR	59	942
Rod Gardner	WR	CAR	57	714
Ricky Proehl	WR	CAR	37	474
Drew Carter	WR	CAR	29	316
Karl Hankton	WR	CAR	10	165
Kris Mangum	TE	CAR	33	340
Mike Seidman	TE	CAR	14	122
Chad Mustard	TE	CAR	4	38
Michael Gaines	TE	CAR	4	37
Dan Curley	TE	CAR	0	0
Lee Evans	WR	BUF	67	927
Eric Moulds	WR	BUF	71	1003
Roscoe Parrish	WR	BUF	47	526
Sam Aiken	WR	BUF	14	184
Josh Reed	WR	BUF	18	208
Mark Campbell	TE	BUF	28	264
Tim Euhus	TE	BUF	13	118
Rod Trafford	TE	BUF	4	31
Kevin Everett	TE	BUF	0	0
Brad Cieslak	TE	BUF	0	0
Derrick Mason	WR	BAL	70	1034
Mark Clayton	WR	BAL	56	789
Clarence Moore	WR	BAL	38	469
Randy Hymes	WR	BAL	20	268
Devard Darling	WR	BAL	18	199
Patrick Johnson	WR	BAL	4	60
Todd Heap	TE	BAL	61	721
Terry Jones	TE	BAL	18	146
Daniel Wilcox	TE	BAL	11	99
Darnell Dinkins	TE	BAL	4	39
Trent Smith	TE	BAL	0	0
Michael Jenkins	WR	ATL	58	774
Peerless Price	WR	ATL	44	577
Dez White	WR	ATL	39	482
Brian Finneran	WR	ATL	28	390
Roddy White	WR	ATL	21	267
Alge Crumpler	TE	ATL	52	713
Dwayne Blakley	TE	ATL	3	28
Mark Anelli	TE	ATL	0	0
Derek Rackley	TE	ATL	0	0
David Rackley	TE	ATL	0	0
Larry Fitzgerald	WR	ARI	78	1164
Anquan Boldin	WR	ARI	74	1083

Bryant Johnson	WR	ARI	46	537
Charles Lee	WR	ARI	18	245
Lawrence Hamil	WR	ARI	12	131
Reggie Newhou	WR	ARI	9	78
Eric Edwards	TE	ARI	30	306
Adam Bergen	TE	ARI	0	0
Robert Blizzard	TE	ARI	0	0
Andy Stokes	TE	ARI	0	0
John Bronson	TE	ARI	0	0

is in for all 375 players

Conference?

Table 2:

Team	Conference
ARI	National
ATL	National
BAL	American
BUF	American
CAR	National
CHI	National
CIN	American
CLE	American
DAL	National
DEN	American
DET	National
GB	National
HOU	American
IND	American
JAC	American
KC	American
MIA	American
MIN	National
NE	American
NO	National
NYG	National
NYJ	American
OAK	American
PHI	National
PIT	American
SD	American
SEA	National
SF	National
STL	National
TB	National
TEN	American
WAS	National

V-Lookups

exercise 3: Find the corresponding conference each

Table 1:

Player	Position	Team	Catches	Yards
Santana Moss	WR	WAS	67	950
David Patten	WR	WAS	68	853
Darnerien McCa	WR	WAS	28	355
James Thrash	WR	WAS	21	256
Taylor Jacobs	WR	WAS	26	275
Kevin Dyson	WR	WAS	14	158
Jimmy Farris	WR	WAS	2	25
Chris Cooley	TE	WAS	45	408
Robert Royal	TE	WAS	8	83
Jabari Holloway	TE	WAS	5	52
Brian Kozlowski	TE	WAS	6	58
Mike Sellers	TE	WAS	2	29
Billy Baber	TE	WAS	2	21
Drew Bennett	WR	TEN	72	1114
Tyrone Calico	WR	TEN	55	852
Brandon Jones	WR	TEN	38	436
Courtney Roby	WR	TEN	32	393
Roydell Williams	WR	TEN	11	94
Ben Troupe	TE	TEN	43	411
Erron Kinney	TE	TEN	38	335
Bo Scaife	TE	TEN	9	84
Ben Hall	TE	TEN	0	0
Steve Cucci	TE	TEN	0	0
Michael Clayton	WR	TB	84	1253
Joey Galloway	WR	TB	54	831
Ike Hilliard	WR	TB	47	501
Edell Shepherd	WR	TB	2	19
Anthony DiCosn	WR	TB	0	0
Anthony Becht	TE	TB	28	245
Alex Smith	TE	TB	17	189
Will Heller	TE	TB	7	56
Dave Moore	TE	TB	4	40
Nate Lawrie	TE	TB	2	23
Torry Holt	WR	STL	96	1384
Isaac Bruce	WR	STL	75	1060
Kevin Curtis	WR	STL	60	727
Shaun McDonald	WR	STL	41	473
Dane Looker	WR	STL	17	192
Mike Furrey	WR	STL	10	98
Brandon Manum	TE	STL	18	190
Roland Williams	TE	STL	4	28
Dauntae Finger	TE	STL	0	0
Mike Brake	TE	STL	0	0

Erik Jensen	TE	STL	0	0
Brandon Lloyd	WR	SF	68	935
Johnnie Morton	WR	SF	54	703
Arnaz Battle	WR	SF	44	468
Rashaun Woods	WR	SF	31	336
Jason McAddley	WR	SF	6	83
P.J. Fleck	WR	SF	9	74
Marcus Maxwell	WR	SF	4	38
Javin Hunter	WR	SF	2	12
Eric Johnson	TE	SF	66	649
Steve Bush	TE	SF	12	74
Aaron Walker	TE	SF	9	111
Neil Johnson	TE	SF	0	0
Patrick Estes	TE	SF	0	0
Darrell Jackson	WR	SEA	83	1232
Bobby Engram	WR	SEA	51	645
Jerome Pathon	WR	SEA	32	449
Bobby Shaw	WR	SEA	35	439
Joe Jurevicius	WR	SEA	36	422
Jerheme Urban	WR	SEA	12	232
Alex Bannister	WR	SEA	4	46
Jerramy Stevens	TE	SEA	38	397
Itula Mili	TE	SEA	24	268
Ryan Hannam	TE	SEA	8	116
Brock Edwards	TE	SEA	0	0
Calen Powell	TE	SEA	0	0
Keenan McCardell	WR	SD	71	898
Reche Caldwell	WR	SD	51	796
Eric Parker	WR	SD	36	541
Kassim Osgood	WR	SD	19	396
Vincent Jackson	WR	SD	11	123
Malcom Floyd	WR	SD	3	49
Antonio Gates	TE	SD	78	879
Ryan Krause	TE	SD	6	89
Justin Peelle	TE	SD	10	81
Cody McCarty	TE	SD	0	0
Danny Young	TE	SD	0	0
Hines Ward	WR	PIT	91	1107
Antwaan Randle	WR	PIT	68	897
Cedrick Wilson	WR	PIT	50	622
Chris Doering	WR	PIT	12	144
Lee Mays	WR	PIT	11	135
Fred Gibson	WR	PIT	4	34
Heath Miller	TE	PIT	38	373
Jerame Tuman	TE	PIT	9	101
Walter Rasby	TE	PIT	6	58
Matt Cushing	TE	PIT	1	9
Matt Kranchick	TE	PIT	0	0
Terrell Owens	WR	PHI	86	1261
Greg Lewis	WR	PHI	66	764
Reggie Brown	WR	PHI	37	467
Todd Pinkston	WR	PHI	0	0

Billy McMullen	WR	PHI	4	29
L.J. Smith	TE	PHI	42	487
Chad Lewis	TE	PHI	25	255
James Whalen	TE	PHI	17	145
Mike Bartrum	TE	PHI	4	32
Andy Thorn	TE	PHI	0	0
Randy Moss	WR	OAK	93	1311
Jerry Porter	WR	OAK	72	1023
Ronald Curry	WR	OAK	37	486
Doug Gabriel	WR	OAK	16	270
Alvis Whitted	WR	OAK	17	250
John Stone	WR	OAK	3	54
Johnnie Morant	WR	OAK	2	45
Randal Williams	WR	OAK	1	17
Teyo Johnson	TE	OAK	25	266
Courtney Ander	TE	OAK	23	315
Josh Norman	TE	OAK	7	91
Rickey Dudley	TE	OAK	9	94
John Paul Foschi	TE	OAK	0	0
Laveranues Cole	WR	NYJ	86	1196
Justin McCareins	WR	NYJ	64	879
Wayne Chrebet	WR	NYJ	32	413
Jerricho Cotcher	WR	NYJ	31	306
Jonathan Carter	WR	NYJ	12	209
Doug Jolley	TE	NYJ	32	340
Chris Baker	TE	NYJ	28	278
Joel Dreessen	TE	NYJ	0	0
Matthew Chila	TE	NYJ	0	0
James Dearth	TE	NYJ	0	0
Plaxico Burress	WR	NYG	74	1057
Amani Toomer	WR	NYG	68	973
Tim Carter	WR	NYG	32	440
David Tyree	WR	NYG	20	274
Willie Ponder	WR	NYG	18	197
Jamaar Taylor	WR	NYG	8	182
Zuriel Smith	WR	NYG	2	23
Jeremy Shockey	TE	NYG	64	697
Visanthe Shianc	TE	NYG	8	42
Chris Luzar	TE	NYG	1	12
Darius Williams	TE	NYG	0	0
Beau Fullerton	TE	NYG	0	0
Joe Horn	WR	NO	91	1289
Donte' Stallwort	WR	NO	59	861
Az-Zahir Hakim	WR	NO	33	432
Devery Henders	WR	NO	34	376
Talman Gardner	WR	NO	18	234
Michael Lewis	WR	NO	11	221
Nate Poole	WR	NO	12	142
Boo Williams	TE	NO	28	298
Ernie Conwell	TE	NO	24	284
Shad Meier	TE	NO	21	167
Zach Hilton	TE	NO	0	0

Lamont Hall	TE	NO	2	4
Deion Branch	WR	NE	74	1009
David Givens	WR	NE	63	933
David Terrell	WR	NE	37	475
Bethel Johnson	WR	NE	26	384
Troy Brown	WR	NE	18	181
Tim Dwight	WR	NE	13	169
Cedric James	WR	NE	0	10
Ben Watson	TE	NE	39	357
Daniel Graham	TE	NE	27	293
Christian Fauria	TE	NE	14	146
Jed Weaver	TE	NE	9	111
John Lumpkin	TE	NE	0	0
Nate Burleson	WR	MIN	74	1132
Troy Williamson	WR	MIN	58	794
Marcus Robinso	WR	MIN	48	654
Travis Taylor	WR	MIN	56	713
Kelly Campbell	WR	MIN	18	336
Daryl Jones	WR	MIN	3	30
Avion Black	WR	MIN	2	17
Keenan Howry	WR	MIN	4	18
Jermaine Wiggir	TE	MIN	35	347
Jimmy Kleinsass	TE	MIN	29	287
Richard Owens	TE	MIN	9	76
Sean Berton	TE	MIN	6	57
Jeff Dugan	TE	MIN	0	0
Chris Chambers	WR	MIA	74	1038
Marty Booker	WR	MIA	63	805
David Boston	WR	MIA	42	510
Derrius Thomps	WR	MIA	24	348
Bryan Gilmore	WR	MIA	12	158
Danny Farmer	WR	MIA	3	38
Kendall Newson	WR	MIA	1	28
Randy McMicha	TE	MIA	65	682
Donald Lee	TE	MIA	12	116
Alex Holmes	TE	MIA	0	0
Ed Perry	TE	MIA	0	0
Jason Rader	TE	MIA	0	0
Eddie Kennison	WR	KC	59	996
Samie Parker	WR	KC	45	685
Marc Boerigter	WR	KC	22	434
Freddie Mitchell	WR	KC	26	376
Dante Hall	WR	KC	24	276
Craphonso Thor	WR	KC	19	241
Chris Horn	WR	KC	18	205
Tony Gonzalez	TE	KC	75	933
Kris Wilson	TE	KC	21	201
Jason Dunn	TE	KC	16	114
Edwin Thompso	TE	KC	0	0
Mike Kallfelz	TE	KC	0	0
Jimmy Smith	WR	JAC	79	1151
Reggie Williams	WR	JAC	58	737

Matt Jones	WR	JAC	33	349
Ernest Wilford	WR	JAC	27	379
Troy Edwards	WR	JAC	32	372
Cortez Hankton	WR	JAC	16	149
Chris Cole	WR	JAC	2	18
George Wrighst	TE	JAC	18	165
Kyle Brady	TE	JAC	20	197
Todd Yoder	TE	JAC	15	160
Brian Jones	TE	JAC	6	87
Cam Quayle	TE	JAC	0	0
Marvin Harrison	WR	IND	92	1194
Reggie Wayne	WR	IND	75	1159
Brandon Stokley	WR	IND	63	986
Troy Walters	WR	IND	11	134
Aaron Moorehea	WR	IND	5	62
Brad Pyatt	WR	IND	3	10
Dallas Clark	TE	IND	41	535
Ben Hartsock	TE	IND	4	33
Ben Utecht	TE	IND	0	0
Joey Hawkins	TE	IND	0	0
Joe Kuykendall	TE	IND	0	0
Andre Johnson	WR	HOU	90	1324
Jabar Gaffney	WR	HOU	53	683
Corey Bradford	WR	HOU	29	467
Jerome Mathis	WR	HOU	28	394
Derick Armstron	WR	HOU	29	392
Reggie Swinton	WR	HOU	10	112
Billy Miller	TE	HOU	22	229
Marcellus Rivers	TE	HOU	9	79
Mark Bruener	TE	HOU	5	37
Bennie Joppru	TE	HOU	0	0
Aaron Halterma	TE	HOU	0	0
Javon Walker	WR	GB	84	1330
Donald Driver	WR	GB	76	1060
Robert Ferguson	WR	GB	29	413
Antonio Chatma	WR	GB	19	215
Terrence Murph	WR	GB	16	171
Craig Bragg	WR	GB	7	101
Andrae Thurma	WR	GB	11	84
Bubba Franks	TE	GB	37	331
David Martin	TE	GB	14	104
Ben Steele	TE	GB	5	48
Alphonso Collins	TE	GB	0	0
Steve Fleming	TE	GB	0	0
Roy Williams	WR	DET	78	1185
Charles Rogers	WR	DET	69	762
Mike Williams	WR	DET	61	789
Tai Streets	WR	DET	32	349
Kevin Johnson	WR	DET	37	399
Scott Vines	WR	DET	3	59
David Kircus	WR	DET	3	54
Eddie Drummon	WR	DET	0	0

Marcus Pollard	TE	DET	35	401
Casey Fitzsimm	TE	DET	14	119
Justin Swift	TE	DET	2	17
Khary Jackson	TE	DET	0	0
Leonard Stephe	TE	DET	0	4
Ashley Lelie	WR	DEN	65	1056
Rod Smith	WR	DEN	78	1055
Darius Watts	WR	DEN	48	597
Jerry Rice	WR	DEN	40	543
Nate Jackson	WR	DEN	8	72
Triandos Luke	WR	DEN	8	73
Jeb Putzier	TE	DEN	38	425
Stephen Alexan	TE	DEN	38	385
Patrick Hape	TE	DEN	8	38
Dwayne Carswe	TE	DEN	5	21
Mike Leach	TE	DEN	0	0
Keyshawn Johns	WR	DAL	73	967
Terry Glenn	WR	DAL	57	854
Quincy Morgan	WR	DAL	47	611
Patrick Crayton	WR	DAL	15	202
Terrance Coppe	WR	DAL	10	126
Ahmad Merritt	WR	DAL	6	50
Jason Witten	TE	DAL	79	863
Dan Campbell	TE	DAL	16	142
Tony Curtis	TE	DAL	0	0
Sean Ryan	TE	DAL	0	0
Brett Pierce	TE	DAL	0	0
Antonio Bryant	WR	CLE	66	977
Braylon Edward	WR	CLE	67	827
Andre Davis	WR	CLE	50	754
Dennis Northcu	WR	CLE	47	641
Frisman Jackson	WR	CLE	9	122
Steve Heiden	TE	CLE	26	219
Aaron Shea	TE	CLE	30	258
Keith Heinrich	TE	CLE	4	28
Keith Willis	TE	CLE	0	0
Ivory McCoy	TE	CLE	0	0
Chad Johnson	WR	CIN	89	1328
T.J. Houshmand	WR	CIN	74	956
Peter Warrick	WR	CIN	50	548
Kelley Washingt	WR	CIN	37	327
Chris Henry	WR	CIN	17	184
Kevin Walter	WR	CIN	12	84
Cliff Russell	WR	CIN	2	17
Matt Schobel	TE	CIN	22	223
Reggie Kelly	TE	CIN	15	114
Tony Stewart	TE	CIN	11	96
Brad St. Louis	TE	CIN	0	0
Michael Woolrid	TE	CIN	0	0
Muhsin Muhamm	WR	CHI	66	971
Justin Gage	WR	CHI	41	499
Bernard Berrian	WR	CHI	25	371

Bobby Wade	WR	CHI	28	324
Eddie Berlin	WR	CHI	12	188
Mark Bradley	WR	CHI	21	198
Ron Johnson	WR	CHI	4	42
Desmond Clark	TE	CHI	26	290
Dustin Lyman	TE	CHI	13	100
Darnell Sanders	TE	CHI	6	37
John Gilmore	TE	CHI	2	24
John Owens	TE	CHI	2	14
Steve Smith	WR	CAR	81	1124
Keary Colbert	WR	CAR	59	942
Rod Gardner	WR	CAR	57	714
Ricky Proehl	WR	CAR	37	474
Drew Carter	WR	CAR	29	316
Karl Hankton	WR	CAR	10	165
Kris Mangum	TE	CAR	33	340
Mike Seidman	TE	CAR	14	122
Chad Mustard	TE	CAR	4	38
Michael Gaines	TE	CAR	4	37
Dan Curley	TE	CAR	0	0
Lee Evans	WR	BUF	67	927
Eric Moulds	WR	BUF	71	1003
Roscoe Parrish	WR	BUF	47	526
Sam Aiken	WR	BUF	14	184
Josh Reed	WR	BUF	18	208
Mark Campbell	TE	BUF	28	264
Tim Euhus	TE	BUF	13	118
Rod Trafford	TE	BUF	4	31
Kevin Everett	TE	BUF	0	0
Brad Cieslak	TE	BUF	0	0
Derrick Mason	WR	BAL	70	1034
Mark Clayton	WR	BAL	56	789
Clarence Moore	WR	BAL	38	469
Randy Hymes	WR	BAL	20	268
Devard Darling	WR	BAL	18	199
Patrick Johnson	WR	BAL	4	60
Todd Heap	TE	BAL	61	721
Terry Jones	TE	BAL	18	146
Daniel Wilcox	TE	BAL	11	99
Darnell Dinkins	TE	BAL	4	39
Trent Smith	TE	BAL	0	0
Michael Jenkins	WR	ATL	58	774
Peerless Price	WR	ATL	44	577
Dez White	WR	ATL	39	482
Brian Finneran	WR	ATL	28	390
Roddy White	WR	ATL	21	267
Alge Crumpler	TE	ATL	52	713
Dwayne Blakley	TE	ATL	3	28
Mark Anelli	TE	ATL	0	0
Derek Rackley	TE	ATL	0	0
David Rackley	TE	ATL	0	0
Larry Fitzgerald	WR	ARI	78	1164

Anquan Boldin	WR	ARI	74	1083
Bryant Johnson	WR	ARI	46	537
Charles Lee	WR	ARI	18	245
Lawrence Hamil	WR	ARI	12	131
Reggie Newhou	WR	ARI	9	78
Eric Edwards	TE	ARI	30	306
Adam Bergen	TE	ARI	0	0
Robert Blizzard	TE	ARI	0	0
Andy Stokes	TE	ARI	0	0
John Bronson	TE	ARI	0	0

h player is in using "Table 2" from the previous worksheet

Conference?

Data Filters

Alt + D + F + F   (Data - Filter - AutoFilter)
(Windows-based Excel only)

Keyboard shortcut: Hold down the Alt key (*use Option key for Excel for Mac*) to ac
Click on the data filter to show a list of all unique entries in that column

	column1	column2
Filtered columns have a blue arrow		
Filtered rows have blue numbers	86	4
All rows not matching the selected criteria are hidden	76	7
	9	3
	23	2
	-	abc
	52	6

cess the data filter

column3
0.28
0.39
0.42
0.63
0.42
0.43

Data Filters

exercise 1: Filter out all blank rows from this data

Player	Position	Team	Catches	Yards
Santana Moss	WR	WAS	67	950
David Patten	WR	WAS	68	853
Darnerien McCants	WR	WAS	28	355
James Thrash	WR	WAS	21	256
Taylor Jacobs	WR	WAS	26	275
Kevin Dyson	WR	WAS	14	158
Jimmy Farris	WR	WAS	2	25
Chris Cooley	TE	WAS	45	408
Robert Royal	TE	WAS	8	83
Jabari Holloway	TE	WAS	5	52
Mike Sellers	TE	WAS	2	29
Billy Baber	TE	WAS	2	21
Drew Bennett	WR	TEN	72	1114
Tyrone Calico	WR	TEN	55	852
Brandon Jones	WR	TEN	38	436
Courtney Roby	WR	TEN	32	393
Ben Troupe	TE	TEN	43	411
Erron Kinney	TE	TEN	38	335
Bo Scaife	TE	TEN	9	84
Ben Hall	TE	TEN	0	0
Steve Cucci	TE	TEN	0	0
Michael Clayton	WR	TB	84	1253
Joey Galloway	WR	TB	54	831
Ike Hilliard	WR	TB	47	501
Edell Shepherd	WR	TB	2	19
Anthony DiCosmo	WR	TB	0	0
Anthony Becht	TE	TB	28	245
Alex Smith	TE	TB	17	189
Will Heller	TE	TB	7	56
Dave Moore	TE	TB	4	40
Torry Holt	WR	STL	96	1384
Isaac Bruce	WR	STL	75	1060
Kevin Curtis	WR	STL	60	727
Shaun McDonald	WR	STL	41	473
Dane Looker	WR	STL	17	192
Brandon Manumaleuna	TE	STL	18	190
Roland Williams	TE	STL	4	28
Dauntae Finger	TE	STL	0	0
Mike Brake	TE	STL	0	0
Erik Jensen	TE	STL	0	0
Brandon Lloyd	WR	SF	68	935
Johnnie Morton	WR	SF	54	703
Arnaz Battle	WR	SF	44	468

Rashaun Woods	WR	SF	31	336
Jason McAddley	WR	SF	6	83
P.J. Fleck	WR	SF	9	74
Marcus Maxwell	WR	SF	4	38
Javin Hunter	WR	SF	2	12
Eric Johnson	TE	SF	66	649
Steve Bush	TE	SF	12	74
Aaron Walker	TE	SF	9	111
Neil Johnson	TE	SF	0	0
Patrick Estes	TE	SF	0	0
Darrell Jackson	WR	SEA	83	1232
Bobby Engram	WR	SEA	51	645
Jerome Pathon	WR	SEA	32	449
Joe Jurevicius	WR	SEA	36	422
Jerheme Urban	WR	SEA	12	232
Alex Bannister	WR	SEA	4	46
Jerramy Stevens	TE	SEA	38	397
Itula Mili	TE	SEA	24	268
Ryan Hannam	TE	SEA	8	116
Brock Edwards	TE	SEA	0	0
Calen Powell	TE	SEA	0	0
Keenan McCardell	WR	SD	71	898
Reche Caldwell	WR	SD	51	796
Eric Parker	WR	SD	36	541
Kassim Osgood	WR	SD	19	396
Vincent Jackson	WR	SD	11	123
Malcom Floyd	WR	SD	3	49
Antonio Gates	TE	SD	78	879
Ryan Krause	TE	SD	6	89
Justin Peelle	TE	SD	10	81
Danny Young	TE	SD	0	0
Hines Ward	WR	PIT	91	1107
Antwaan Randle-El	WR	PIT	68	897
Cedrick Wilson	WR	PIT	50	622
Chris Doering	WR	PIT	12	144
Lee Mays	WR	PIT	11	135
Fred Gibson	WR	PIT	4	34
Heath Miller	TE	PIT	38	373
Matt Cushing	TE	PIT	1	9
Matt Kranchick	TE	PIT	0	0
Terrell Owens	WR	PHI	86	1261
Greg Lewis	WR	PHI	66	764
Reggie Brown	WR	PHI	37	467
Todd Pinkston	WR	PHI	0	0
Billy McMullen	WR	PHI	4	29
L.J. Smith	TE	PHI	42	487
Chad Lewis	TE	PHI	25	255
James Whalen	TE	PHI	17	145

Mike Bartrum	TE	PHI	4	32
Andy Thorn	TE	PHI	0	0
Randy Moss	WR	OAK	93	1311
Jerry Porter	WR	OAK	72	1023
Ronald Curry	WR	OAK	37	486
Doug Gabriel	WR	OAK	16	270
Alvis Whitted	WR	OAK	17	250
John Stone	WR	OAK	3	54
Johnnie Morant	WR	OAK	2	45
Randal Williams	WR	OAK	1	17
Teyo Johnson	TE	OAK	25	266
Courtney Anderson	TE	OAK	23	315
Josh Norman	TE	OAK	7	91
Rickey Dudley	TE	OAK	9	94
John Paul Foschi	TE	OAK	0	0
Laveranues Coles	WR	NYJ	86	1196
Wayne Chrebet	WR	NYJ	32	413
Jerricho Cotchery	WR	NYJ	31	306
Jonathan Carter	WR	NYJ	12	209
Doug Jolley	TE	NYJ	32	340
Chris Baker	TE	NYJ	28	278
Joel Dreessen	TE	NYJ	0	0
Matthew Chila	TE	NYJ	0	0
James Dearth	TE	NYJ	0	0
Plaxico Burress	WR	NYG	74	1057
Amani Toomer	WR	NYG	68	973
Tim Carter	WR	NYG	32	440
Jamaar Taylor	WR	NYG	8	182
Zuriel Smith	WR	NYG	2	23
Jeremy Shockey	TE	NYG	64	697
Visanthe Shiancoe	TE	NYG	8	42
Chris Luzar	TE	NYG	1	12
Darius Williams	TE	NYG	0	0
Beau Fullerton	TE	NYG	0	0
Joe Horn	WR	NO	91	1289
Donte' Stallworth	WR	NO	59	861
Az-Zahir Hakim	WR	NO	33	432
Devery Henderson	WR	NO	34	376
Talman Gardner	WR	NO	18	234
Michael Lewis	WR	NO	11	221
Nate Poole	WR	NO	12	142
Boo Williams	TE	NO	28	298
Ernie Conwell	TE	NO	24	284
Shad Meier	TE	NO	21	167
Zach Hilton	TE	NO	0	0
Lamont Hall	TE	NO	2	4
Deion Branch	WR	NE	74	1009
David Givens	WR	NE	63	933
David Terrell	WR	NE	37	475

Bethel Johnson	WR	NE	26	384
Troy Brown	WR	NE	18	181
Tim Dwight	WR	NE	13	169
Cedric James	WR	NE	0	10
Daniel Graham	TE	NE	27	293
Christian Fauria	TE	NE	14	146
Jed Weaver	TE	NE	9	111
John Lumpkin	TE	NE	0	0
Nate Burleson	WR	MIN	74	1132
Troy Williamson	WR	MIN	58	794
Marcus Robinson	WR	MIN	48	654
Travis Taylor	WR	MIN	56	713
Kelly Campbell	WR	MIN	18	336
Daryl Jones	WR	MIN	3	30
Avion Black	WR	MIN	2	17
Jermaine Wiggins	TE	MIN	35	347
Jimmy Kleinsasser	TE	MIN	29	287
Richard Owens	TE	MIN	9	76
Sean Berton	TE	MIN	6	57
Jeff Dugan	TE	MIN	0	0
Chris Chambers	WR	MIA	74	1038
Marty Booker	WR	MIA	63	805
David Boston	WR	MIA	42	510
Bryan Gilmore	WR	MIA	12	158
Danny Farmer	WR	MIA	3	38
Kendall Newson	WR	MIA	1	28
Randy McMichael	TE	MIA	65	682
Donald Lee	TE	MIA	12	116
Alex Holmes	TE	MIA	0	0
Ed Perry	TE	MIA	0	0
Jason Rader	TE	MIA	0	0
Eddie Kennison	WR	KC	59	996
Samie Parker	WR	KC	45	685
Marc Boerigter	WR	KC	22	434
Freddie Mitchell	WR	KC	26	376
Dante Hall	WR	KC	24	276
Craphonso Thorpe	WR	KC	19	241
Chris Horn	WR	KC	18	205
Tony Gonzalez	TE	KC	75	933
Kris Wilson	TE	KC	21	201
Jason Dunn	TE	KC	16	114
Mike Kallfelz	TE	KC	0	0
Jimmy Smith	WR	JAC	79	1151
Reggie Williams	WR	JAC	58	737
Matt Jones	WR	JAC	33	349
Ernest Wilford	WR	JAC	27	379
Troy Edwards	WR	JAC	32	372
Cortez Hankton	WR	JAC	16	149

Chris Cole	WR	JAC	2	18
George Wrighster	TE	JAC	18	165
Kyle Brady	TE	JAC	20	197
Todd Yoder	TE	JAC	15	160
Brian Jones	TE	JAC	6	87
Cam Quayle	TE	JAC	0	0
Marvin Harrison	WR	IND	92	1194
Reggie Wayne	WR	IND	75	1159
Brandon Stokley	WR	IND	63	986
Troy Walters	WR	IND	11	134
Aaron Moorehead	WR	IND	5	62
Brad Pyatt	WR	IND	3	10
Dallas Clark	TE	IND	41	535
Ben Utecht	TE	IND	0	0
Joey Hawkins	TE	IND	0	0
Joe Kuykendall	TE	IND	0	0
Andre Johnson	WR	HOU	90	1324
Jabar Gaffney	WR	HOU	53	683
Corey Bradford	WR	HOU	29	467
Jerome Mathis	WR	HOU	28	394
Derick Armstrong	WR	HOU	29	392
Reggie Swinton	WR	HOU	10	112
Billy Miller	TE	HOU	22	229
Marcellus Rivers	TE	HOU	9	79
Mark Bruener	TE	HOU	5	37
Bennie Joppru	TE	HOU	0	0
Aaron Halterman	TE	HOU	0	0
Javon Walker	WR	GB	84	1330
Donald Driver	WR	GB	76	1060
Robert Ferguson	WR	GB	29	413
Antonio Chatman	WR	GB	19	215
Craig Bragg	WR	GB	7	101
Andrae Thurman	WR	GB	11	84
Bubba Franks	TE	GB	37	331
David Martin	TE	GB	14	104
Ben Steele	TE	GB	5	48
Alphonso Collins	TE	GB	0	0
Steve Fleming	TE	GB	0	0
Roy Williams	WR	DET	78	1185
Charles Rogers	WR	DET	69	762
Mike Williams	WR	DET	61	789
Tai Streets	WR	DET	32	349
Kevin Johnson	WR	DET	37	399
Scott Vines	WR	DET	3	59
David Kircus	WR	DET	3	54
Eddie Drummond	WR	DET	0	0
Marcus Pollard	TE	DET	35	401
Casey Fitzsimmons	TE	DET	14	119
Justin Swift	TE	DET	2	17

Leonard Stephens	TE	DET	0	4
Ashley Lelie	WR	DEN	65	1056
Rod Smith	WR	DEN	78	1055
Darius Watts	WR	DEN	48	597
Jerry Rice	WR	DEN	40	543
Nate Jackson	WR	DEN	8	72
Triandos Luke	WR	DEN	8	73
Jeb Putzier	TE	DEN	38	425
Stephen Alexander	TE	DEN	38	385
Patrick Hape	TE	DEN	8	38
Dwayne Carswell	TE	DEN	5	21
Mike Leach	TE	DEN	0	0
Keyshawn Johnson	WR	DAL	73	967
Ahmad Merritt	WR	DAL	6	50
Jason Witten	TE	DAL	79	863
Dan Campbell	TE	DAL	16	142
Tony Curtis	TE	DAL	0	0
Brett Pierce	TE	DAL	0	0
Antonio Bryant	WR	CLE	66	977
Braylon Edwards	WR	CLE	67	827
Andre Davis	WR	CLE	50	754
Dennis Northcutt	WR	CLE	47	641
Frisman Jackson	WR	CLE	9	122
Steve Heiden	TE	CLE	26	219
Aaron Shea	TE	CLE	30	258
Keith Heinrich	TE	CLE	4	28
Keith Willis	TE	CLE	0	0
Ivory McCoy	TE	CLE	0	0
Chad Johnson	WR	CIN	89	1328
T.J. Houshmandzadeh	WR	CIN	74	956
Peter Warrick	WR	CIN	50	548
Kelley Washington	WR	CIN	37	327
Chris Henry	WR	CIN	17	184
Kevin Walter	WR	CIN	12	84
Matt Schobel	TE	CIN	22	223
Reggie Kelly	TE	CIN	15	114
Tony Stewart	TE	CIN	11	96
Brad St. Louis	TE	CIN	0	0
Michael Woolridge	TE	CIN	0	0
Muhsin Muhammad	WR	CHI	66	971
Justin Gage	WR	CHI	41	499
Bernard Berrian	WR	CHI	25	371
Bobby Wade	WR	CHI	28	324
Eddie Berlin	WR	CHI	12	188
Mark Bradley	WR	CHI	21	198
Ron Johnson	WR	CHI	4	42

Desmond Clark	TE	CHI	26	290
Dustin Lyman	TE	CHI	13	100
Darnell Sanders	TE	CHI	6	37
John Owens	TE	CHI	2	14
Steve Smith	WR	CAR	81	1124
Keary Colbert	WR	CAR	59	942
Rod Gardner	WR	CAR	57	714
Ricky Proehl	WR	CAR	37	474
Drew Carter	WR	CAR	29	316
Karl Hankton	WR	CAR	10	165
Kris Mangum	TE	CAR	33	340
Mike Seidman	TE	CAR	14	122
Chad Mustard	TE	CAR	4	38
Michael Gaines	TE	CAR	4	37
Dan Curley	TE	CAR	0	0
Lee Evans	WR	BUF	67	927
Eric Moulds	WR	BUF	71	1003
Roscoe Parrish	WR	BUF	47	526
Sam Aiken	WR	BUF	14	184
Josh Reed	WR	BUF	18	208
Mark Campbell	TE	BUF	28	264
Tim Euhus	TE	BUF	13	118
Rod Trafford	TE	BUF	4	31
Kevin Everett	TE	BUF	0	0
Brad Cieslak	TE	BUF	0	0
Mark Clayton	WR	BAL	56	789
Clarence Moore	WR	BAL	38	469
Randy Hymes	WR	BAL	20	268
Devard Darling	WR	BAL	18	199
Patrick Johnson	WR	BAL	4	60
Terry Jones	TE	BAL	18	146
Daniel Wilcox	TE	BAL	11	99
Darnell Dinkins	TE	BAL	4	39
Trent Smith	TE	BAL	0	0
Michael Jenkins	WR	ATL	58	774
Peerless Price	WR	ATL	44	577
Brian Finneran	WR	ATL	28	390
Roddy White	WR	ATL	21	267
Dwayne Blakley	TE	ATL	3	28
Mark Anelli	TE	ATL	0	0
Derek Rackley	TE	ATL	0	0
David Rackley	TE	ATL	0	0
Larry Fitzgerald	WR	ARI	78	1164
Anquan Boldin	WR	ARI	74	1083
Charles Lee	WR	ARI	18	245
Lawrence Hamilton	WR	ARI	12	131

Reggie Newhouse	WR	ARI	9	78
Eric Edwards	TE	ARI	30	306
Adam Bergen	TE	ARI	0	0
Robert Blizzard	TE	ARI	0	0
Andy Stokes	TE	ARI	0	0
John Bronson	TE	ARI	0	0

set

Data Filters

exercise 2: Find all the players whose first name is "A

Wildcards:

Use	To find
? (question mark)	Any single character
	For example, sm?th finds "smith" and "smyth"
* (asterisk)	Any number of characters
	For example, *east finds "Northeast" and "Southeast"
~ (tilde) followed by ?, *, or ~	A question mark, asterisk, or tilde
	For example, fy91~? finds "fy91?"

Player	Position
Aaron Halterman	TE
Aaron Moorehead	WR
Aaron Shea	TE
Aaron Walker	TE
Adam Bergen	TE
Ahmad Merritt	WR
Alex Bannister	WR
Alex Holmes	TE
Alex Smith	TE
Alge Crumpler	TE
Alphonso Collins	TE
Amani Toomer	WR
Andrae Thurman	WR
Andre Davis	WR
Andre Johnson	WR
Andy Stokes	TE
Andy Thorn	TE
Anquan Boldin	WR
Anthony Becht	TE
Anthony DiCosmo	WR
Antonio Bryant	WR
Antonio Chatman	WR
Antonio Gates	TE
Antwaan Randle-El	WR
Arnaz Battle	WR
Ashley Lelie	WR
Avion Black	WR
Beau Fullerton	TE
Ben Hall	TE
Ben Hartsock	TE
Ben Steele	TE
Ben Troupe	TE

Ben Utecht	TE
Ben Watson	TE
Bennie Joppru	TE
Bernard Berrian	WR
Bethel Johnson	WR
Billy Baber	TE
Billy McMullen	WR
Billy Miller	TE
Bo Scaife	TE
Bobby Engram	WR
Bobby Shaw	WR
Bobby Wade	WR
Boo Williams	TE
Brad Cieslak	TE
Brad Pyatt	WR
Brad St. Louis	TE
Brandon Jones	WR
Brandon Lloyd	WR
Brandon Manumaleuna	TE
Brandon Stokley	WR
Braylon Edwards	WR
Brett Pierce	TE
Brian Finneran	WR
Brian Jones	TE
Brian Kozlowski	TE
Brock Edwards	TE
Bryan Gilmore	WR
Bryant Johnson	WR
Bubba Franks	TE
Calen Powell	TE
Cam Quayle	TE
Casey Fitzsimmons	TE
Cedric James	WR
Chad Johnson	WR
Chad Lewis	TE
Chad Mustard	TE
Charles Lee	WR
Charles Rogers	WR
Chris Baker	TE
Chris Chambers	WR
Chris Cole	WR
Chris Cooley	TE
Chris Doering	WR
Chris Henry	WR
Chris Horn	WR
Chris Luzar	TE
Christian Fauria	TE
Clarence Moore	WR
Cliff Russell	WR
Cody McCarty	TE
Corey Bradford	WR

Cortez Hankton	WR
Courtney Anderson	TE
Courtney Roby	WR
Craig Bragg	WR
Craphonso Thorpe	WR
Dallas Clark	TE
Dan Campbell	TE
Dan Curley	TE
Dane Looker	WR
Daniel Graham	TE
Daniel Wilcox	TE
Danny Farmer	WR
Danny Young	TE
Dante Hall	WR
Darius Watts	WR
Darius Williams	TE
Darnell Dinkins	TE
Darnell Sanders	TE
Darnerien McCants	WR
Darrell Jackson	WR
Daryl Jones	WR
Dauntae Finger	TE
Dave Moore	TE
David Boston	WR
David Givens	WR
David Kircus	WR
David Martin	TE
David Patten	WR
David Rackley	TE
David Terrell	WR
David Tyree	WR
Deion Branch	WR
Dennis Northcutt	WR
Derek Rackley	TE
Derick Armstrong	WR
Derrick Mason	WR
Derrius Thompson	WR
Desmond Clark	TE
Devard Darling	WR
Devery Henderson	WR
Dez White	WR
Donald Driver	WR
Donald Lee	TE
Donte' Stallworth	WR
Doug Gabriel	WR
Doug Jolley	TE
Drew Bennett	WR
Drew Carter	WR
Dustin Lyman	TE
Dwayne Blakley	TE
Dwayne Carswell	TE
Ed Perry	TE

Eddie Berlin	WR
Eddie Drummond	WR
Eddie Kennison	WR
Edell Shepherd	WR
Edwin Thompson	TE
Eric Edwards	TE
Eric Johnson	TE
Eric Moulds	WR
Eric Parker	WR
Ernie Conwell	TE
Erron Kinney	TE
Fred Gibson	WR
Freddie Mitchell	WR
Frisman Jackson	WR
George Wrighster	TE
Greg Lewis	WR
Heath Miller	TE
Hines Ward	WR
Ike Hilliard	WR
Isaac Bruce	WR
Itula Mili	TE
Ivory McCoy	TE
Jabar Gaffney	WR
Jabari Holloway	TE
Jamaar Taylor	WR
James Dearth	TE
James Thrash	WR
James Whalen	TE
Jason Dunn	TE
Jason McAddley	WR
Jason Rader	TE
Jason Witten	TE
Javin Hunter	WR
Javon Walker	WR
Jeb Putzier	TE
Jed Weaver	TE
Jeff Dugan	TE
Jerame Tuman	TE
Jeremy Shockey	TE
Jerheme Urban	WR
Jermaine Wiggins	TE
Jerome Mathis	WR
Jerome Pathon	WR
Jerramy Stevens	TE
Jerricho Cotchery	WR
Jerry Porter	WR
Jerry Rice	WR
Jimmy Farris	WR
Jimmy Kleinsasser	TE
Jimmy Smith	WR

Joe Horn	WR
Joe Jurevicius	WR
Joe Kuykendall	TE
Joel Dreessen	TE
Joey Galloway	WR
Joey Hawkins	TE
John Bronson	TE
John Gilmore	TE
John Lumpkin	TE
John Owens	TE
John Paul Foschi	TE
John Stone	WR
Johnnie Morant	WR
Johnnie Morton	WR
Jonathan Carter	WR
Josh Norman	TE
Josh Reed	WR
Justin Gage	WR
Justin McCareins	WR
Justin Peelle	TE
Justin Swift	TE
Karl Hankton	WR
Kassim Osgood	WR
Keary Colbert	WR
Keenan Howry	WR
Keenan McCardell	WR
Keith Heinrich	TE
Keith Willis	TE
Kelley Washington	WR
Kelly Campbell	WR
Kendall Newson	WR
Kevin Curtis	WR
Kevin Dyson	WR
Kevin Everett	TE
Kevin Johnson	WR
Kevin Walter	WR
Keyshawn Johnson	WR
Khary Jackson	TE
Kris Wilson	TE
Kyle Brady	TE
L.J. Smith	TE
Lamont Hall	TE
Larry Fitzgerald	WR
Laveranues Coles	WR
Lawrence Hamilton	WR
Lee Evans	WR
Lee Mays	WR
Leonard Stephens	TE
Malcom Floyd	WR
Marc Boerigter	WR
Marcellus Rivers	TE

Marcus Maxwell	WR
Marcus Pollard	TE
Marcus Robinson	WR
Mark Anelli	TE
Mark Bradley	WR
Mark Bruener	TE
Mark Campbell	TE
Marty Booker	WR
Marvin Harrison	WR
Matt Cushing	TE
Matt Jones	WR
Matt Kranchick	TE
Matt Schobel	TE
Matthew Chila	TE
Michael Clayton	WR
Michael Gaines	TE
Michael Jenkins	WR
Michael Lewis	WR
Michael Woolridge	TE
Mike Bartrum	TE
Mike Brake	TE
Mike Furrey	WR
Mike Kallfelz	TE
Mike Leach	TE
Mike Seidman	TE
Mike Sellers	TE
Mike Williams	WR
Nate Burleson	WR
Nate Jackson	WR
Nate Lawrie	TE
Nate Poole	WR
Neil Johnson	TE
P.J. Fleck	WR
Patrick Crayton	WR
Patrick Estes	TE
Patrick Hape	TE
Patrick Johnson	WR
Peerless Price	WR
Peter Warrick	WR
Plaxico Burress	WR
Quincy Morgan	WR
Randal Williams	WR
Randy Hymes	WR
Randy McMichael	TE
Randy Moss	WR
Rashaun Woods	WR
Reche Caldwell	WR
Reggie Brown	WR
Reggie Kelly	TE
Reggie Newhouse	WR

Reggie Swinton	WR
Reggie Wayne	WR
Reggie Williams	WR
Richard Owens	TE
Rickey Dudley	TE
Ricky Proehl	WR
Robert Blizzard	TE
Robert Ferguson	WR
Robert Royal	TE
Rod Gardner	WR
Rod Smith	WR
Rod Trafford	TE
Roddy White	WR
Roland Williams	TE
Ron Johnson	WR
Ronald Curry	WR
Roscoe Parrish	WR
Roy Williams	WR
Roydell Williams	WR
Ryan Hannam	TE
Ryan Krause	TE
Sam Aiken	WR
Samie Parker	WR
Santana Moss	WR
Scott Vines	WR
Sean Berton	TE
Sean Ryan	TE
Shad Meier	TE
Shaun McDonald	WR
Stephen Alexander	TE
Steve Bush	TE
Steve Cucci	TE
Steve Fleming	TE
Steve Heiden	TE
Steve Smith	WR
T.J. Houshmandzadeh	WR
Tai Streets	WR
Talman Gardner	WR
Taylor Jacobs	WR
Terrell Owens	WR
Terrence Murphy	WR
Terry Glenn	WR
Terry Jones	TE
Teyo Johnson	TE
Tim Carter	WR
Tim Dwight	WR
Tim Euhus	TE
Todd Heap	TE
Todd Yoder	TE
Tony Curtis	TE

Tony Gonzalez	TE
Tony Stewart	TE
Torry Holt	WR
Travis Taylor	WR
Triandos Luke	WR
Troy Brown	WR
Troy Edwards	WR
Troy Walters	WR
Troy Williamson	WR
Tyrone Calico	WR
Vincent Jackson	WR
Visanthe Shiancoe	TE
Walter Rasby	TE
Wayne Chrebet	WR
Will Heller	TE
Willie Ponder	WR
Zuriel Smith	WR

lex"

Team	Catches	Yards
HOU	0	0
IND	5	62
CLE	30	258
SF	9	111
ARI	0	0
DAL	6	50
SEA	4	46
MIA	0	0
TB	17	189
ATL	52	713
GB	0	0
NYG	68	973
GB	11	84
CLE	50	754
HOU	90	1324
ARI	0	0
PHI	0	0
ARI	74	1083
TB	28	245
TB	0	0
CLE	66	977
GB	19	215
SD	78	879
PIT	68	897
SF	44	468
DEN	65	1056
MIN	2	17
NYG	0	0
TEN	0	0
IND	4	33
GB	5	48
TEN	43	411

IND	0	0
NE	39	357
HOU	0	0
CHI	25	371
NE	26	384
WAS	2	21
PHI	4	29
HOU	22	229
TEN	9	84
SEA	51	645
SEA	35	439
CHI	28	324
NO	28	298
BUF	0	0
IND	3	10
CIN	0	0
TEN	38	436
SF	68	935
STL	18	190
IND	63	986
CLE	67	827
DAL	0	0
ATL	28	390
JAC	6	87
WAS	6	58
SEA	0	0
MIA	12	158
ARI	46	537
GB	37	331
SEA	0	0
JAC	0	0
DET	14	119
NE	0	10
CIN	89	1328
PHI	25	255
CAR	4	38
ARI	18	245
DET	69	762
NYJ	28	278
MIA	74	1038
JAC	2	18
WAS	45	408
PIT	12	144
CIN	17	184
KC	18	205
NYG	1	12
NE	14	146
BAL	38	469
CIN	2	17
SD	0	0
HOU	29	467

JAC	16	149
OAK	23	315
TEN	32	393
GB	7	101
KC	19	241
IND	41	535
DAL	16	142
CAR	0	0
STL	17	192
NE	27	293
BAL	11	99
MIA	3	38
SD	0	0
KC	24	276
DEN	48	597
NYG	0	0
BAL	4	39
CHI	6	37
WAS	28	355
SEA	83	1232
MIN	3	30
STL	0	0
TB	4	40
MIA	42	510
NE	63	933
DET	3	54
GB	14	104
WAS	68	853
ATL	0	0
NE	37	475
NYG	20	274
NE	74	1009
CLE	47	641
ATL	0	0
HOU	29	392
BAL	70	1034
MIA	24	348
CHI	26	290
BAL	18	199
NO	34	376
ATL	39	482
GB	76	1060
MIA	12	116
NO	59	861
OAK	16	270
NYJ	32	340
TEN	72	1114
CAR	29	316
CHI	13	100
ATL	3	28
DEN	5	21
MIA	0	0

CHI	12	188
DET	0	0
KC	59	996
TB	2	19
KC	0	0
ARI	30	306
SF	66	649
BUF	71	1003
SD	36	541
NO	24	284
TEN	38	335
PIT	4	34
KC	26	376
CLE	9	122
JAC	18	165
PHI	66	764
PIT	38	373
PIT	91	1107
TB	47	501
STL	75	1060
SEA	24	268
CLE	0	0
HOU	53	683
WAS	5	52
NYG	8	182
NYJ	0	0
WAS	21	256
PHI	17	145
KC	16	114
SF	6	83
MIA	0	0
DAL	79	863
SF	2	12
GB	84	1330
DEN	38	425
NE	9	111
MIN	0	0
PIT	9	101
NYG	64	697
SEA	12	232
MIN	35	347
HOU	28	394
SEA	32	449
SEA	38	397
NYJ	31	306
OAK	72	1023
DEN	40	543
WAS	2	25
MIN	29	287
JAC	79	1151

NO	91	1289
SEA	36	422
IND	0	0
NYJ	0	0
TB	54	831
IND	0	0
ARI	0	0
CHI	2	24
NE	0	0
CHI	2	14
OAK	0	0
OAK	3	54
OAK	2	45
SF	54	703
NYJ	12	209
OAK	7	91
BUF	18	208
CHI	41	499
NYJ	64	879
SD	10	81
DET	2	17
CAR	10	165
SD	19	396
CAR	59	942
MIN	4	18
SD	71	898
CLE	4	28
CLE	0	0
CIN	37	327
MIN	18	336
MIA	1	28
STL	60	727
WAS	14	158
BUF	0	0
DET	37	399
CIN	12	84
DAL	73	967
DET	0	0
KC	21	201
JAC	20	197
PHI	42	487
NO	2	4
ARI	78	1164
NYJ	86	1196
ARI	12	131
BUF	67	927
PIT	11	135
DET	0	4
SD	3	49
KC	22	434
HOU	9	79

SF	4	38
DET	35	401
MIN	48	654
ATL	0	0
CHI	21	198
HOU	5	37
BUF	28	264
MIA	63	805
IND	92	1194
PIT	1	9
JAC	33	349
PIT	0	0
CIN	22	223
NYJ	0	0
TB	84	1253
CAR	4	37
ATL	58	774
NO	11	221
CIN	0	0
PHI	4	32
STL	0	0
STL	10	98
KC	0	0
DEN	0	0
CAR	14	122
WAS	2	29
DET	61	789
MIN	74	1132
DEN	8	72
TB	2	23
NO	12	142
SF	0	0
SF	9	74
DAL	15	202
SF	0	0
DEN	8	38
BAL	4	60
ATL	44	577
CIN	50	548
NYG	74	1057
DAL	47	611
OAK	1	17
BAL	20	268
MIA	65	682
OAK	93	1311
SF	31	336
SD	51	796
PHI	37	467
CIN	15	114
ARI	9	78

HOU	10	112
IND	75	1159
JAC	58	737
MIN	9	76
OAK	9	94
CAR	37	474
ARI	0	0
GB	29	413
WAS	8	83
CAR	57	714
DEN	78	1055
BUF	4	31
ATL	21	267
STL	4	28
CHI	4	42
OAK	37	486
BUF	47	526
DET	78	1185
TEN	11	94
SEA	8	116
SD	6	89
BUF	14	184
KC	45	685
WAS	67	950
DET	3	59
MIN	6	57
DAL	0	0
NO	21	167
STL	41	473
DEN	38	385
SF	12	74
TEN	0	0
GB	0	0
CLE	26	219
CAR	81	1124
CIN	74	956
DET	32	349
NO	18	234
WAS	26	275
PHI	86	1261
GB	16	171
DAL	57	854
BAL	18	146
OAK	25	266
NYG	32	440
NE	13	169
BUF	13	118
BAL	61	721
JAC	15	160
DAL	0	0

KC	75	933
CIN	11	96
STL	96	1384
MIN	56	713
DEN	8	73
NE	18	181
JAC	32	372
IND	11	134
MIN	58	794
TEN	55	852
SD	11	123
NYG	8	42
PIT	6	58
NYJ	32	413
TB	7	56
NYG	18	197
NYG	2	23

Data Filters

exercise 3: Use a vlookup and data filters to find a

Player	Position	Team	Catches	Yards
Aaron Halterman	TE	HOU	0	0
Aaron Moorehead	WR	IND	5	62
Aaron Shea	TE	CLE	30	258
Aaron Walker	TE	SF	9	111
Adam Bergen	TE	ARI	0	0
Ahmad Merritt	WR	DAL	6	50
Alex Bannister	WR	SEA	4	46
Alex Holmes	TE	MIA	0	0
Alex Smith	TE	TB	17	189
Alge Crumpler	TE	ATL	52	713
Alphonso Collins	TE	GB	0	0
Amani Toomer	WR	NYG	68	973
Andrae Thurman	WR	GB	11	84
Andre Davis	WR	CLE	50	754
Andre Johnson	WR	HOU	90	1324
Andy Stokes	TE	ARI	0	0
Andy Thorn	TE	PHI	0	0
Anquan Boldin	WR	ARI	74	1083
Anthony Becht	TE	TB	28	245
Anthony DiCosmo	WR	TB	0	0
Antonio Bryant	WR	CLE	66	977
Antonio Chatman	WR	GB	19	215
Antonio Gates	TE	SD	78	879
Antwaan Randle-El	WR	PIT	68	897
Arnaz Battle	WR	SF	44	468
Ashley Lelie	WR	DEN	65	1056
Avion Black	WR	MIN	2	17
Beau Fullerton	TE	NYG	0	0
Ben Hall	TE	TEN	0	0
Ben Hartsock	TE	IND	4	33
Ben Steele	TE	GB	5	48
Ben Troupe	TE	TEN	43	411
Ben Utecht	TE	IND	0	0
Ben Watson	TE	NE	39	357
Bennie Joppru	TE	HOU	0	0
Bernard Berrian	WR	CHI	25	371
Bethel Johnson	WR	NE	26	384
Billy Baber	TE	WAS	2	21
Billy McMullen	WR	PHI	4	29
Billy Miller	TE	HOU	22	229
Bo Scaife	TE	TEN	9	84
Bobby Engram	WR	SEA	51	645
Bobby Shaw	WR	SEA	35	439
Bobby Wade	WR	CHI	28	324
Boo Williams	TE	NO	28	298

Brad Cieslak	TE	BUF	0	0
Brad Pyatt	WR	IND	3	10
Brad St. Louis	TE	CIN	0	0
Brandon Jones	WR	TEN	38	436
Brandon Lloyd	WR	SF	68	935
Brandon Manumaleuna	TE	STL	18	190
Brandon Stokley	WR	IND	63	986
Braylon Edwards	WR	CLE	67	827
Brett Pierce	TE	DAL	0	0
Brian Finneran	WR	ATL	28	390
Brian Jones	TE	JAC	6	87
Brian Kozlowski	TE	WAS	6	58
Brock Edwards	TE	SEA	0	0
Bryan Gilmore	WR	MIA	12	158
Bryant Johnson	WR	ARI	46	537
Bubba Franks	TE	GB	37	331
Calen Powell	TE	SEA	0	0
Cam Quayle	TE	JAC	0	0
Casey Fitzsimmons	TE	DET	14	119
Cedric James	WR	NE	0	10
Chad Johnson	WR	CIN	89	1328
Chad Lewis	TE	PHI	25	255
Chad Mustard	TE	CAR	4	38
Charles Lee	WR	ARI	18	245
Charles Rogers	WR	DET	69	762
Chris Baker	TE	NYJ	28	278
Chris Chambers	WR	MIA	74	1038
Chris Cole	WR	JAC	2	18
Chris Cooley	TE	WAS	45	408
Chris Doering	WR	PIT	12	144
Chris Henry	WR	CIN	17	184
Chris Horn	WR	KC	18	205
Chris Luzar	TE	NYG	1	12
Christian Fauria	TE	NE	14	146
Clarence Moore	WR	BAL	38	469
Cliff Russell	WR	CIN	2	17
Cody McCarty	TE	SD	0	0
Corey Bradford	WR	HOU	29	467
Cortez Hankton	WR	JAC	16	149
Courtney Anderson	TE	OAK	23	315
Courtney Roby	WR	TEN	32	393
Craig Bragg	WR	GB	7	101
Craphonso Thorpe	WR	KC	19	241
Dallas Clark	TE	IND	41	535
Dan Campbell	TE	DAL	16	142
Dan Curley	TE	CAR	0	0
Dane Looker	WR	STL	17	192
Daniel Graham	TE	NE	27	293
Daniel Wilcox	TE	BAL	11	99
Danny Farmer	WR	MIA	3	38
Danny Young	TE	SD	0	0

Dante Hall	WR	KC	24	276
Darius Watts	WR	DEN	48	597
Darius Williams	TE	NYG	0	0
Darnell Dinkins	TE	BAL	4	39
Darnell Sanders	TE	CHI	6	37
Darnerien McCants	WR	WAS	28	355
Darrell Jackson	WR	SEA	83	1232
Daryl Jones	WR	MIN	3	30
Dauntae Finger	TE	STL	0	0
Dave Moore	TE	TB	4	40
David Boston	WR	MIA	42	510
David Givens	WR	NE	63	933
David Kircus	WR	DET	3	54
David Martin	TE	GB	14	104
David Patten	WR	WAS	68	853
David Rackley	TE	ATL	0	0
David Terrell	WR	NE	37	475
David Tyree	WR	NYG	20	274
Deion Branch	WR	NE	74	1009
Dennis Northcutt	WR	CLE	47	641
Derek Rackley	TE	ATL	0	0
Derick Armstrong	WR	HOU	29	392
Derrick Mason	WR	BAL	70	1034
Derrius Thompson	WR	MIA	24	348
Desmond Clark	TE	CHI	26	290
Devard Darling	WR	BAL	18	199
Devery Henderson	WR	NO	34	376
Dez White	WR	ATL	39	482
Donald Driver	WR	GB	76	1060
Donald Lee	TE	MIA	12	116
Donte' Stallworth	WR	NO	59	861
Doug Gabriel	WR	OAK	16	270
Doug Jolley	TE	NYJ	32	340
Drew Bennett	WR	TEN	72	1114
Drew Carter	WR	CAR	29	316
Dustin Lyman	TE	CHI	13	100
Dwayne Blakley	TE	ATL	3	28
Dwayne Carswell	TE	DEN	5	21
Ed Perry	TE	MIA	0	0
Eddie Berlin	WR	CHI	12	188
Eddie Drummond	WR	DET	0	0
Eddie Kennison	WR	KC	59	996
Edell Shepherd	WR	TB	2	19
Edwin Thompson	TE	KC	0	0
Eric Edwards	TE	ARI	30	306
Eric Johnson	TE	SF	66	649
Eric Moulds	WR	BUF	71	1003
Eric Parker	WR	SD	36	541
Ernie Conwell	TE	NO	24	284
Erron Kinney	TE	TEN	38	335

Fred Gibson	WR	PIT	4	34
Freddie Mitchell	WR	KC	26	376
Frisman Jackson	WR	CLE	9	122
George Wrighster	TE	JAC	18	165
Greg Lewis	WR	PHI	66	764
Heath Miller	TE	PIT	38	373
Hines Ward	WR	PIT	91	1107
Ike Hilliard	WR	TB	47	501
Isaac Bruce	WR	STL	75	1060
Itula Mili	TE	SEA	24	268
Ivory McCoy	TE	CLE	0	0
Jabar Gaffney	WR	HOU	53	683
Jabari Holloway	TE	WAS	5	52
Jamaar Taylor	WR	NYG	8	182
James Dearth	TE	NYJ	0	0
James Thrash	WR	WAS	21	256
James Whalen	TE	PHI	17	145
Jason Dunn	TE	KC	16	114
Jason McAddley	WR	SF	6	83
Jason Rader	TE	MIA	0	0
Jason Witten	TE	DAL	79	863
Javin Hunter	WR	SF	2	12
Javon Walker	WR	GB	84	1330
Jeb Putzier	TE	DEN	38	425
Jed Weaver	TE	NE	9	111
Jeff Dugan	TE	MIN	0	0
Jerame Tuman	TE	PIT	9	101
Jeremy Shockey	TE	NYG	64	697
Jerheme Urban	WR	SEA	12	232
Jermaine Wiggins	TE	MIN	35	347
Jerome Mathis	WR	HOU	28	394
Jerome Pathon	WR	SEA	32	449
Jerramy Stevens	TE	SEA	38	397
Jerricho Cotchery	WR	NYJ	31	306
Jerry Porter	WR	OAK	72	1023
Jerry Rice	WR	DEN	40	543
Jimmy Farris	WR	WAS	2	25
Jimmy Kleinsasser	TE	MIN	29	287
Jimmy Smith	WR	JAC	79	1151
Joe Horn	WR	NO	91	1289
Joe Jurevicius	WR	SEA	36	422
Joe Kuykendall	TE	IND	0	0
Joel Dreessen	TE	NYJ	0	0
Joey Galloway	WR	TB	54	831
Joey Hawkins	TE	IND	0	0
John Bronson	TE	ARI	0	0
John Gilmore	TE	CHI	2	24
John Lumpkin	TE	NE	0	0
John Owens	TE	CHI	2	14
John Paul Foschi	TE	OAK	0	0
John Stone	WR	OAK	3	54
Johnnie Morant	WR	OAK	2	45

Johnnie Morton	WR	SF	54	703
Jonathan Carter	WR	NYJ	12	209
Josh Norman	TE	OAK	7	91
Josh Reed	WR	BUF	18	208
Justin Gage	WR	CHI	41	499
Justin McCareins	WR	NYJ	64	879
Justin Peelle	TE	SD	10	81
Justin Swift	TE	DET	2	17
Karl Hankton	WR	CAR	10	165
Kassim Osgood	WR	SD	19	396
Keary Colbert	WR	CAR	59	942
Keenan Howry	WR	MIN	4	18
Keenan McCardell	WR	SD	71	898
Keith Heinrich	TE	CLE	4	28
Keith Willis	TE	CLE	0	0
Kelley Washington	WR	CIN	37	327
Kelly Campbell	WR	MIN	18	336
Kendall Newson	WR	MIA	1	28
Kevin Curtis	WR	STL	60	727
Kevin Dyson	WR	WAS	14	158
Kevin Everett	TE	BUF	0	0
Kevin Johnson	WR	DET	37	399
Kevin Walter	WR	CIN	12	84
Keyshawn Johnson	WR	DAL	73	967
Khary Jackson	TE	DET	0	0
Kris Wilson	TE	KC	21	201
Kyle Brady	TE	JAC	20	197
L.J. Smith	TE	PHI	42	487
Lamont Hall	TE	NO	2	4
Larry Fitzgerald	WR	ARI	78	1164
Laveranues Coles	WR	NYJ	86	1196
Lawrence Hamilton	WR	ARI	12	131
Lee Evans	WR	BUF	67	927
Lee Mays	WR	PIT	11	135
Leonard Stephens	TE	DET	0	4
Malcom Floyd	WR	SD	3	49
Marc Boerigter	WR	KC	22	434
Marcellus Rivers	TE	HOU	9	79
Marcus Maxwell	WR	SF	4	38
Marcus Pollard	TE	DET	35	401
Marcus Robinson	WR	MIN	48	654
Mark Anelli	TE	ATL	0	0
Mark Bradley	WR	CHI	21	198
Mark Bruener	TE	HOU	5	37
Mark Campbell	TE	BUF	28	264
Marty Booker	WR	MIA	63	805
Marvin Harrison	WR	IND	92	1194
Matt Cushing	TE	PIT	1	9
Matt Jones	WR	JAC	33	349
Matt Kranchick	TE	PIT	0	0

Matt Schobel	TE	CIN	22	223
Matthew Chila	TE	NYJ	0	0
Michael Clayton	WR	TB	84	1253
Michael Gaines	TE	CAR	4	37
Michael Jenkins	WR	ATL	58	774
Michael Lewis	WR	NO	11	221
Michael Woolridge	TE	CIN	0	0
Mike Bartrum	TE	PHI	4	32
Mike Brake	TE	STL	0	0
Mike Furrey	WR	STL	10	98
Mike Kallfelz	TE	KC	0	0
Mike Leach	TE	DEN	0	0
Mike Seidman	TE	CAR	14	122
Mike Sellers	TE	WAS	2	29
Mike Williams	WR	DET	61	789
Nate Burleson	WR	MIN	74	1132
Nate Jackson	WR	DEN	8	72
Nate Lawrie	TE	TB	2	23
Nate Poole	WR	NO	12	142
Neil Johnson	TE	SF	0	0
P.J. Fleck	WR	SF	9	74
Patrick Crayton	WR	DAL	15	202
Patrick Estes	TE	SF	0	0
Patrick Hape	TE	DEN	8	38
Patrick Johnson	WR	BAL	4	60
Peerless Price	WR	ATL	44	577
Peter Warrick	WR	CIN	50	548
Plaxico Burress	WR	NYG	74	1057
Quincy Morgan	WR	DAL	47	611
Randal Williams	WR	OAK	1	17
Randy Hymes	WR	BAL	20	268
Randy McMichael	TE	MIA	65	682
Randy Moss	WR	OAK	93	1311
Rashaun Woods	WR	SF	31	336
Reche Caldwell	WR	SD	51	796
Reggie Brown	WR	PHI	37	467
Reggie Kelly	TE	CIN	15	114
Reggie Newhouse	WR	ARI	9	78
Reggie Swinton	WR	HOU	10	112
Reggie Wayne	WR	IND	75	1159
Reggie Williams	WR	JAC	58	737
Richard Owens	TE	MIN	9	76
Rickey Dudley	TE	OAK	9	94
Ricky Proehl	WR	CAR	37	474
Robert Blizzard	TE	ARI	0	0
Robert Ferguson	WR	GB	29	413
Robert Royal	TE	WAS	8	83
Rod Gardner	WR	CAR	57	714
Rod Smith	WR	DEN	78	1055
Rod Trafford	TE	BUF	4	31
Roddy White	WR	ATL	21	267

Roland Williams	TE	STL	4	28
Ron Johnson	WR	CHI	4	42
Ronald Curry	WR	OAK	37	486
Roscoe Parrish	WR	BUF	47	526
Roy Williams	WR	DET	78	1185
Roydell Williams	WR	TEN	11	94
Ryan Hannam	TE	SEA	8	116
Ryan Krause	TE	SD	6	89
Sam Aiken	WR	BUF	14	184
Samie Parker	WR	KC	45	685
Santana Moss	WR	WAS	67	950
Scott Vines	WR	DET	3	59
Sean Berton	TE	MIN	6	57
Sean Ryan	TE	DAL	0	0
Shad Meier	TE	NO	21	167
Shaun McDonald	WR	STL	41	473
Stephen Alexander	TE	DEN	38	385
Steve Bush	TE	SF	12	74
Steve Cucci	TE	TEN	0	0
Steve Fleming	TE	GB	0	0
Steve Heiden	TE	CLE	26	219
Steve Smith	WR	CAR	81	1124
T.J. Houshmandzadeh	WR	CIN	74	956
Tai Streets	WR	DET	32	349
Talman Gardner	WR	NO	18	234
Taylor Jacobs	WR	WAS	26	275
Terrell Owens	WR	PHI	86	1261
Terrence Murphy	WR	GB	16	171
Terry Glenn	WR	DAL	57	854
Terry Jones	TE	BAL	18	146
Teyo Johnson	TE	OAK	25	266
Tim Carter	WR	NYG	32	440
Tim Dwight	WR	NE	13	169
Tim Euhus	TE	BUF	13	118
Todd Heap	TE	BAL	61	721
Todd Yoder	TE	JAC	15	160
Tony Curtis	TE	DAL	0	0
Tony Gonzalez	TE	KC	75	933
Tony Stewart	TE	CIN	11	96
Torry Holt	WR	STL	96	1384
Travis Taylor	WR	MIN	56	713
Triandos Luke	WR	DEN	8	73
Troy Brown	WR	NE	18	181
Troy Edwards	WR	JAC	32	372
Troy Walters	WR	IND	11	134
Troy Williamson	WR	MIN	58	794
Tyrone Calico	WR	TEN	55	852
Vincent Jackson	WR	SD	11	123
Visanthe Shiancoe	TE	NYG	8	42

Walter Rasby	TE	PIT	6	58
Wayne Chrebet	WR	NYJ	32	413
Will Heller	TE	TB	7	56
Willie Ponder	WR	NYG	18	197
Zuriel Smith	WR	NYG	2	23

all players who are in the National conference with at least

1000 Yards

REPT() function

What: By manipulating the text function REPT(), we can create visual displays of (cut off)
Why: Quickly displays information visually without much effort

=REPT(text,number_times)

=REPT("X",10)   XXXXXXXXXX

=REPT("Oh, No! ",3)   Oh, No! Oh, No! Oh, No!

=REPT("|",30) ||||||||||||||||||||||||||||||
                        |||||||||| <== 8 pt Arial

Example 1:

Name	HR	BB	K	short bars	longer bars
Nomar Garciaparra	12	28	17	|||||||||||| 12	|||||||||||||||||||||| 12
Albert Pujols	32	57	26	|||||||||||||||||||||||||||||| 32	|||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||| 32
Scott Hatteberg	9	43	21	||||||||| 9	|||||||||||||||||| 9
Lance Berkman	26	50	64	|||||||||||||||||||||||| 26	|||||||||||||||||||||||||||||||||||||||||||||||||| 26
Travis Hafner	29	72	74	||||||||||||||||||||||||||| 29	||||||||||||||||||||||||||||||||||||||||||||||||||||||| 29
Justin Morneau	25	27	60	||||||||||||||||||||||| 25	|||||||||||||||||||||||||||||||||||||||||||||| 25
Lyle Overbay	16	34	57	||||||||||||||| 16	|||||||||||||||||||||||||||||| 16
Paul Konerko	24	39	56	||||||||||||||||||||| 24	||||||||||||||||||||||||||||||||||||||||||| 24
Nick Johnson	14	63	53	||||||||||||| 14	|||||||||||||||||||||||||| 14
Shea Hillenbrand	12	14	40	||||||||||| 12	|||||||||||||||||||||| 12
Adrián González	18	21	62	||||||||||||||||| 18	|||||||||||||||||||||||||||||||| 18
Jim Thome	32	61	99	|||||||||||||||||||||||||||||| 32	|||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||| 32
Kevin Youkilis	11	60	76	|||||||||| 11	|||||||||||||||||||| 11
Mike Jacobs	14	30	63	||||||||||||| 14	|||||||||||||||||||||||||| 14
Todd Helton	11	59	37	|||||||||| 11	|||||||||||||||||||| 11
Todd Walker	5	35	26	||||| 5	||||||||| 5
Ryan Howard	31	37	104	||||||||||||||||||||||||||||| 31	||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||| 31
Doug Mientkiewicz	4	35	49	|||| 4	||||||| 4
Prince Fielder	17	29	82	|||||||||||||||| 17	|||||||||||||||||||||||||||||||| 17
Michael Cuddyer	12	37	71	||||||||||| 12	|||||||||||||||||||||| 12
Chris Shelton	16	31	92	||||||||||||||| 16	|||||||||||||||||||||||||||||| 16
Adam LaRoche	17	33	72	|||||||||||||||| 17	|||||||||||||||||||||||||||||||| 17
Mark Teixeira	13	53	75	|||||||||||| 13	|||||||||||||||||||||||| 13

=REPT("|",$B41*2)&" "&$B41
Add a common multiplier or divisor to a

Example 2:

Example 3:

Name	HR	BB	K	BB-K			Name	HR
Nomar Garciaparra	12	28	17	11	IIIII		Nomar Gard	12
Albert Pujols	32	57	26	31	IIIIIIIIIIIIII		Albert Pujol	32
Scott Hatteberg	9	43	21	22	IIIIIIIIIII		Scott Hatte	9
Lance Berkman	26	50	64	-14	IIIIIII		Lance Berki	26
Travis Hafner	29	72	74	-2	I		Travis Hafn	29
Justin Morneau	25	27	60	-33	IIIIIIIIIIIIIIII		Justin Morn	25
Lyle Overbay	16	34	57	-23	IIIIIIIIIII		Lyle Overba	16
Paul Konerko	24	39	56	-17	IIIIIIII		Paul Konerk	24
Nick Johnson	14	63	53	10	IIIII		Nick Johnso	14
Shea Hillenbrand	12	14	40	-26	IIIIIIIIIIIII		Shea Hillen	12
Adrián González	18	21	62	-41	IIIIIIIIIIIIIIIIIII		Adrián Gon:	18
Jim Thome	32	61	99	-38	IIIIIIIIIIIIIIIII		Jim Thome	32
Kevin Youkilis	11	60	76	-16	IIIIIIII		Kevin Youki	11
Mike Jacobs	14	30	63	-33	IIIIIIIIIIIIIIII		Mike Jacobs	14
Todd Helton	11	59	37	22	IIIIIIIIIIII		Todd Heltor	11
Todd Walker	5	35	26	9	IIII		Todd Walke	5
Ryan Howard	31	37	104	-67	IIIIIIIIIIIIIIIIIIIIIIIIIIIII		Ryan Howa	31
Doug Mientkiewicz	4	35	49	-14	IIIIIII		Doug Mient	4
Prince Fielder	17	29	82	-53	IIIIIIIIIIIIIIIIIIIIIII		Prince Field	17
Michael Cuddyer	12	37	71	-34	IIIIIIIIIIIIIIII		Michael Cuc	12
Chris Shelton	16	31	92	-61	IIIIIIIIIIIIIIIIIIIIIIIIIII		Chris Shelto	16
Adam LaRoche	17	33	72	-39	IIIIIIIIIIIIIIIIII		Adam LaRo	17
Mark Teixeira	13	53	75	-22	IIIIIIIIIIII		Mark Teixei	13

Adjust the Text color to red and Right-Align the cells

djust the length of the bars

BB   **K**

BB	K	
28	17	o
57	26	o
43	21	o
50	64	o
72	74	o
27	60	o
34	57	o
39	56	o
63	53	o
14	40	o
21	62	o
61	99	o
60	76	o
30	63	o
59	37	o
35	26	o
37	104	o
35	49	o
29	82	o
37	71	o
31	92	o
33	72	o
53	75	o

Conditional Formatting

What? Conditional formatting allows you to define the format of individual cells based on a

Why? This feature can be used to make your reports look better or to highlight specific val

How? Select "Format -- Conditional Formatting" from the menu to find this dialog box:

Only up to 3 conditions can be defined. The first condition takes precedence over the second, etc.

This box previews the format of the cell when the condition is met

Conditional Formatting

Condition 1
Cell Value Is | between | 1

Preview of format to use when condition is true: AaBbCcYyZz

Condition 2
Cell Value Is | equal to | 4

Preview of format to use when condition is true: AaBbCcYyZz

Condition 3
Formula Is | =$B$9=$C$9

Preview of format to use when condition is true: AaBbCcYyZz

Add >>   Delete...
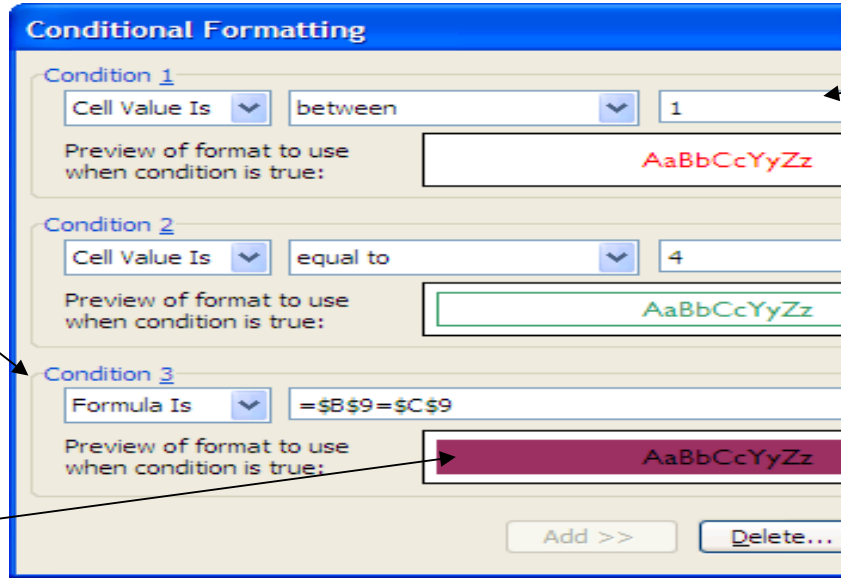
a series of criteria
ues in a table

Tip: Use the "Format Painter" function to copy
conditional formatting across cells
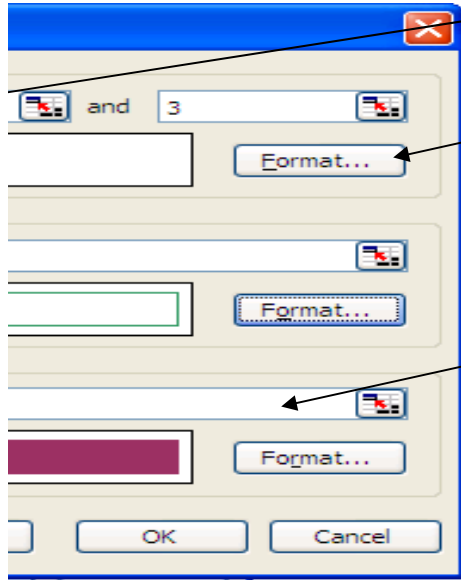
Condition 1 is met if
the value of the cell is
between 1 and 3.

and   3

Format...

Click here to select
the format of the
font, border, and
patterns

Format...

Formulas allow you to use
absolute or relative
references to determine
whether the condition is met

Format...

OK   Cancel

Use "Add" to create new
conditions

Conditional Formatting, Example 1

Name	HR
Adam Dunn	**30**
Adam LaRoche	17
Adrián González	18
Albert Pujols	**32**
Brad Wilkerson	15
Carlos Delgado	**24**
Chris Shelton	16
Conor Jackson	8
Doug Mientkiewicz	4
Jason Giambi	**28**
Jeff Conine	7
Jim Thome	**32**
Justin Morneau	**25**
Kevin Youkilis	11
Lance Berkman	**26**
Lyle Overbay	16
Mark Teixeira	13
Michael Cuddyer	12
Mike Jacobs	14
Nick Johnson	14
Nick Swisher	**21**
Nomar Garciaparra	12
Paul Konerko	**24**
Prince Fielder	17
Richie Sexson	19
Ryan Howard	**31**
Scott Hatteberg	9
Shea Hillenbrand	12
Todd Helton	11
Todd Walker	5
Travis Hafner	**29**

Here is the conditional formatt

Conditional Formatting

Condition 1
Cell Value Is ⌄   greater than

Preview of format to use
when condition is true:
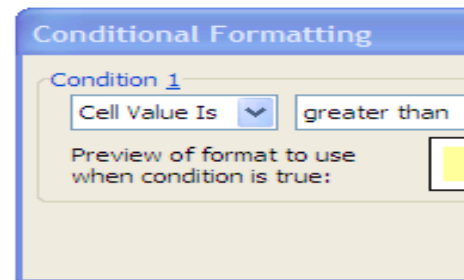
...ting behind this table...
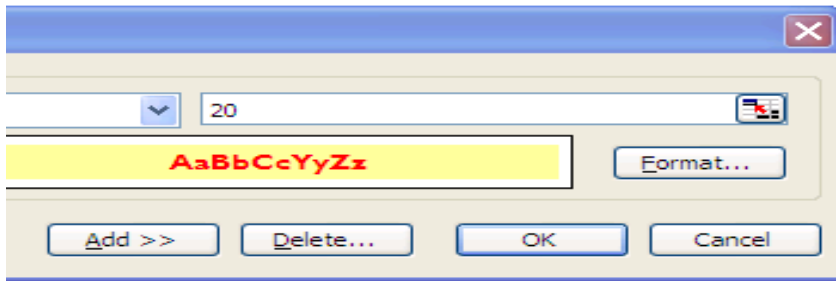
Conditional Formatting, Example 2

This conditional format shades every other line grey and will maintain the shading even if you sort the table.

Try sorting the table to see.
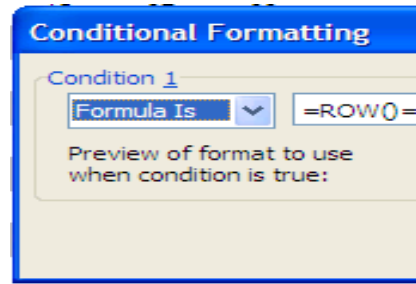
Name	AB	AVG	HR	BB	K
Adam Dunn	349	246	30	73	113
Adam LaRoche	293	270	17	33	72
Adrián González	338	299	18	21	62
Albert Pujols	291	330	32	57	26
Brad Wilkerson	280	239	15	37	99
Carlos Delgado	336	250	24	39	84
Chris Shelton	332	271	16	31	92
Conor Jackson	276	264	8	40	37
Doug Mientkiewicz	307	280	4	35	49
Jason Giambi	294	255	28	68	74
Jeff Conine	280	261	7	26	38
Jim Thome	317	297	32	61	99
Justin Morneau	337	309	25	27	60
Kevin Youkilis	353	289	11	60	76
Lance Berkman	335	316	26	50	64
Lyle Overbay	357	305	16	34	57
Mark Teixeira	383	269	13	53	75
Michael Cuddyer	299	271	12	37	71
Mike Jacobs	296	284	14	30	63
Nick Johnson	324	302	14	63	53
Nick Swisher	337	258	21	62	90
Nomar Garciaparra	305	334	12	28	17
Paul Konerko	348	302	24	39	56
Prince Fielder	358	279	17	29	82
Richie Sexson	361	224	19	35	99
Ryan Howard	342	281	31	37	104
Scott Hatteberg	268	321	9	43	21
Shea Hillenbrand	296	301	12	14	40
Todd Helton	292	284	11	59	37
Todd Walker	297	283	5	35	26
Travis Hafner	325	311	29	72	74

EVEN(ROW())

AaBbCcYyZz

Format...

Add >>   Delete...   OK   Cancel
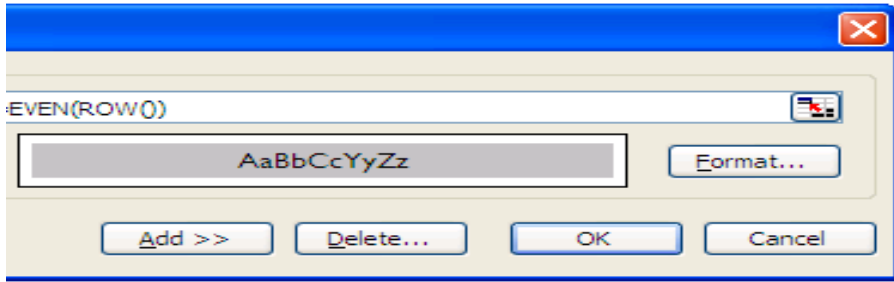
Conditional Formatting, Example 3

This conditional format puts a bar above
any line where HR changes.

Try to change some numbers in the table and watch what happens.

Name	AB	AVG	HR	BB	K
Albert Pujols	291	330	32	57	26
Jim Thome	317	297	32	61	99
Ryan Howard	342	281	31	37	104
Adam Dunn	349	246	30	73	113
Travis Hafner	325	311	29	72	74
Jason Giambi	294	255	28	68	74
Lance Berkman	335	316	26	50	64
Justin Morneau	337	309	25	27	60
Paul Konerko	348	302	24	39	56
Carlos Delgado	336	250	24	39	84
Nick Swisher	337	258	21	62	90
Richie Sexson	361	224	19	35	99
Adrián González	338	299	18	21	62
Prince Fielder	358	279	17	29	82
Adam LaRoche	293	270	17	33	72
Lyle Overbay	357	305	16	34	57
Chris Shelton	332	271	16	31	92
Brad Wilkerson	280	239	15	37	99
Nick Johnson	324	302	14	63	53
Mike Jacobs	296	284	14	30	63
Mark Teixeira	383	269	13	53	75
Nomar Garciaparra	305	334	12	28	17
Shea Hillenbrand	296	301	12	14	40
Michael Cuddyer	299	271	12	37	71
Kevin Youkilis	353	289	11	60	76
Todd Helton	292	284	11	59	37
Scott Hatteberg	268	321	9	43	21
Conor Jackson	276	264	8	40	37
Jeff Conine	280	261	7	26	38
Todd Walker	297	283	5	35	26
Doug Mientkiewicz	307	280	4	35	49

Formatting

=$E8<>$E9

format to use
tion is true:

AaBbCcYyZz

Format...

Add >>   Delete...   OK   Cancel
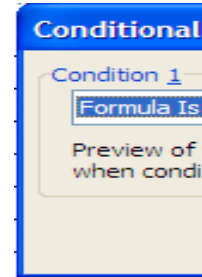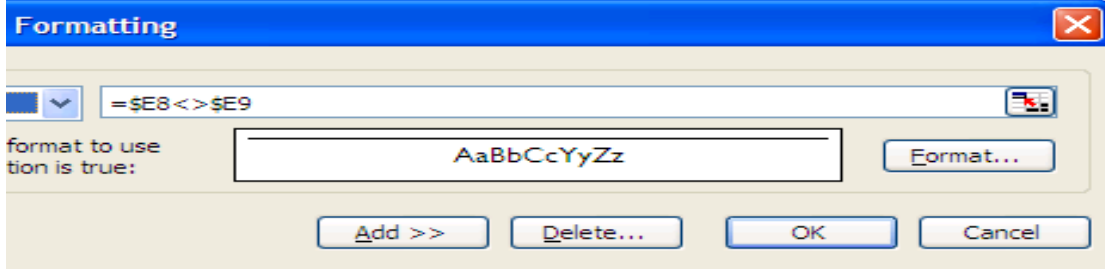
Conditional Formatting, Example 4

This conditional format automatically colors the bars based on their percentile.
The top 25% of values are colored green while the bottom 25% are colored red
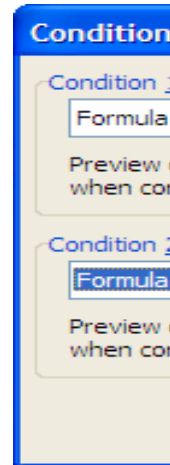
Name	AB	AVG	HR	BB	K
Nomar Garciaparra	305	334	12	28	17
Albert Pujols	291	330	32	57	26
Scott Hatteberg	268	321	9	43	21
Lance Berkman	335	316	26	50	64
Travis Hafner	325	311	29	72	74
Justin Morneau	337	309	25	27	60
Lyle Overbay	357	305	16	34	57
Paul Konerko	348	302	24	39	56
Nick Johnson	324	302	14	63	53
Shea Hillenbrand	296	301	12	14	40
Adrián González	338	299	18	21	62
Jim Thome	317	297	32	61	99
Kevin Youkilis	353	289	11	60	76
Mike Jacobs	296	284	14	30	63
Todd Helton	292	284	11	59	37
Todd Walker	297	283	5	35	26
Ryan Howard	342	281	31	37	104
Doug Mientkiewicz	307	280	4	35	49
Prince Fielder	358	279	17	29	82
Michael Cuddyer	299	271	12	37	71
Chris Shelton	332	271	16	31	92
Adam LaRoche	293	270	17	33	72
Mark Teixeira	383	269	13	53	75
Conor Jackson	276	264	8	40	37
Jeff Conine	280	261	7	26	38
Nick Swisher	337	258	21	62	90
Jason Giambi	294	255	28	68	74
Carlos Delgado	336	250	24	39	84
Adam Dunn	349	246	30	73	113
Brad Wilkerson	280	239	15	37	99
Richie Sexson	361	224	19	35	99

Conditional Formatting Exercises

1. Make the numbers in this table red if <0, green if >0

A	-12
B	8
C	23
D	-3

2. Make every third row in this list grey
(Hint: The function "Row()" returns a row number)

A	9.0
B	9.4
C	2.5
D	5.5
E	2.3
F	7.5
G	1.7
H	3.1

3. Bold the words in this list that are longer than 8 letters long
(Hint: The function "Len(text)" returns the number of characters in a string)

Honey
Grapefruit
Milk
Tea
Cinnamon

Exercise 1: Change the formatting in Graph A to look the same

Graph A
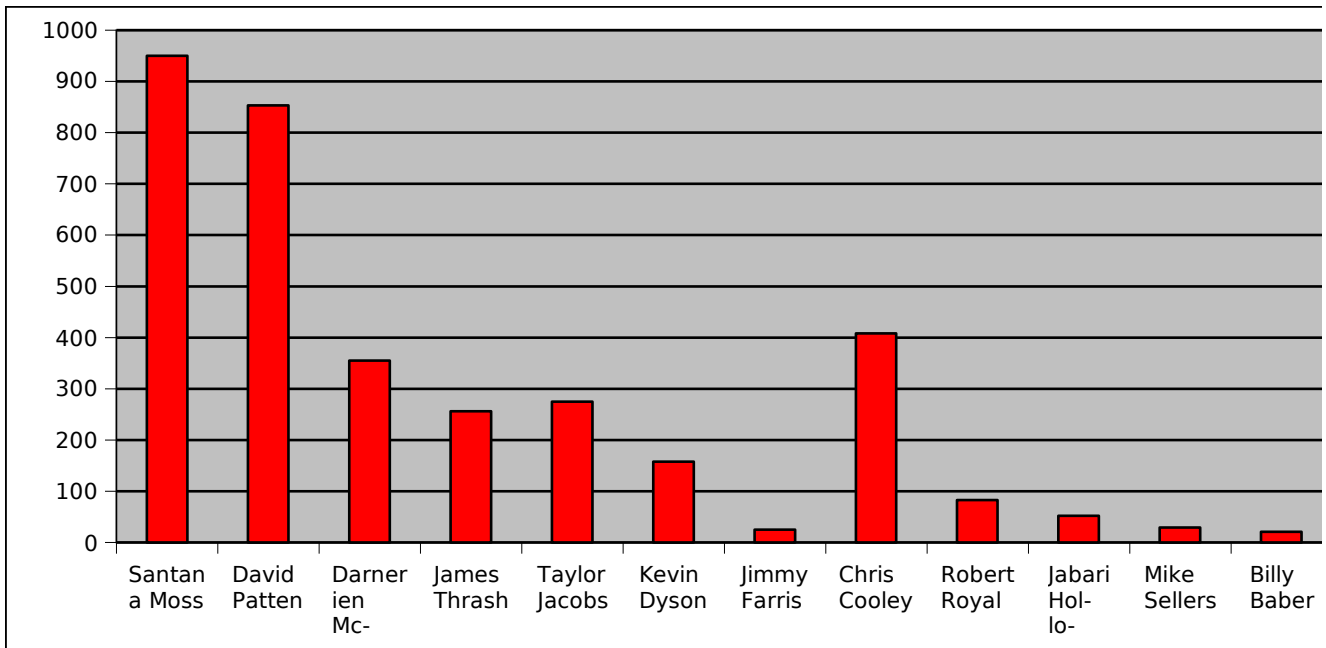
Graph A
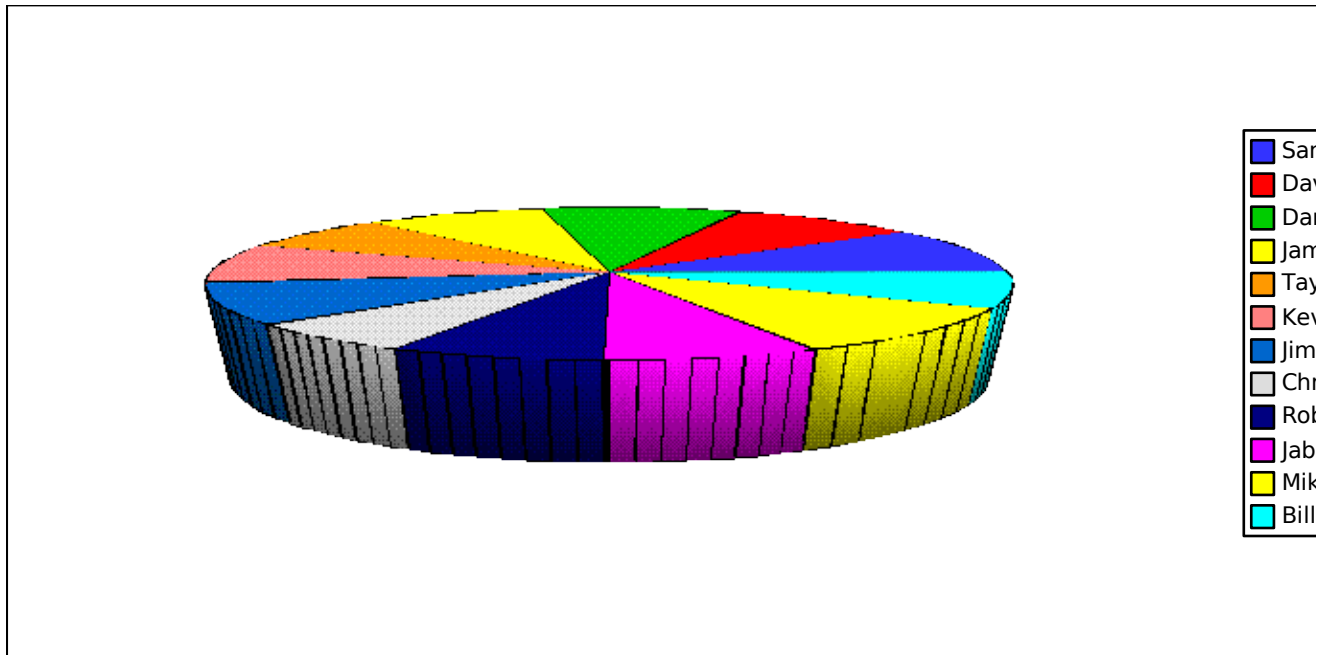
Graph A
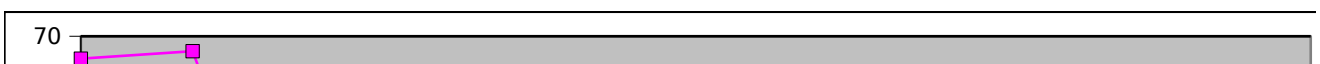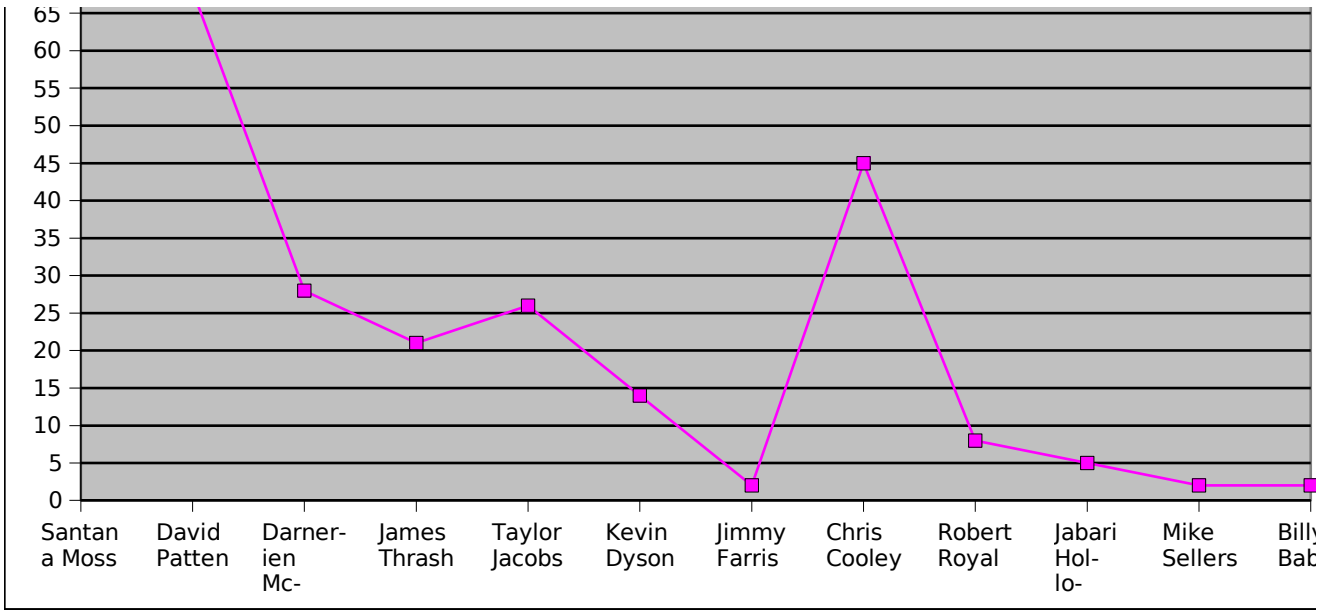
as Graph B (three examples)

Graph B

Receivers' Total Yards

Yards

Santana Moss	950
David Patten	853
Darnerien Mc-	355
James Thrash	256
Taylor Jacobs	275
Kevin Dyson	158
Jimmy Farris	25
Chris Co	4
Jabari Hollo-	

Graph B

Receivers' Yards Per Catches

Santana Moss
David Patten
Darnerien McCants
James Thrash
Taylor Jacobs
Kevin Dyson
Jimmy Farris
Chris Cooley
Robert Royal
Jabari Holloway
Mike Sellers
Billy Baber

David Pat
James
Kevin Dy
Chris Co — 9.07
Jabari
Billy Ba

- 2.00   4.00   6.00   8.00   10.0

Graph B

Receiver's Total Catches

	75							45	
	50								
	25								
	0								
	Santana Moss	David Patten	Darner-ien Mc-	James Thrash	Taylor Jacobs	Kevin Dyson	Jimmy Farris	Chri Coo	Jabari Hol-lo-

408

83	
52	
29	
21	

hris
ooley

Robert
Royal

Jabari
Hol-
lo-

Mike
Sellers

Billy
Baber

14.18

12.54

12.68

12.19

10.58

11.29

12.50

10.38

10.40

14.50

10.50

00   12.00   14.00   16.00

5

is
ley

Robert
Royal

Jabari
Hol-
lo-

Mike
Sellers

Billy
Baber

Charts: exercise

Microsoft Excel has notoriously bad defaults for its charts.

Exercise: Change the formatting of the chart on the right to reduce the chart junk. Answers

A Microsoft Excel default chart

Column
Column
Column

Row 12   Row 15   Row 18   Row 21   Row 24
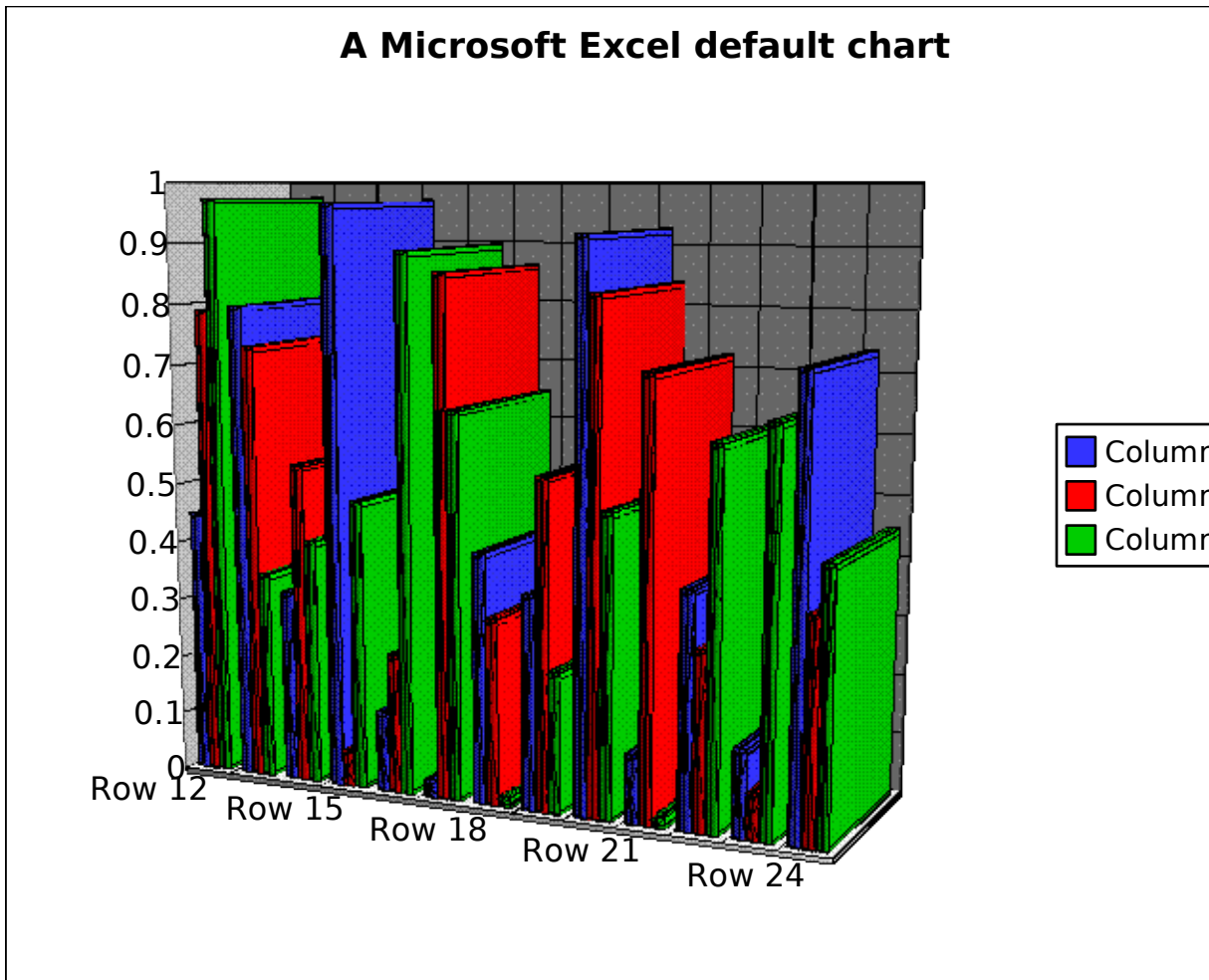
Visit this site for more examples of fixing charts: http://www.perceptualedg

Ideas for cleaning this chart:
* Eliminate 3-D (Chart -- Chart Type -- Select 2-D column chart)
* Eliminate the table at the bottom of the chart (Right click on table -- Clear)
* Eliminate gray background and border (Double click on chart background, select None un
* Eliminate vertical gridlines. (Right click on a vertical gridline and select Clear)
* Optional: Eliminate borders around the columns. (Double click on column and select None

below.

De-chart junked chart
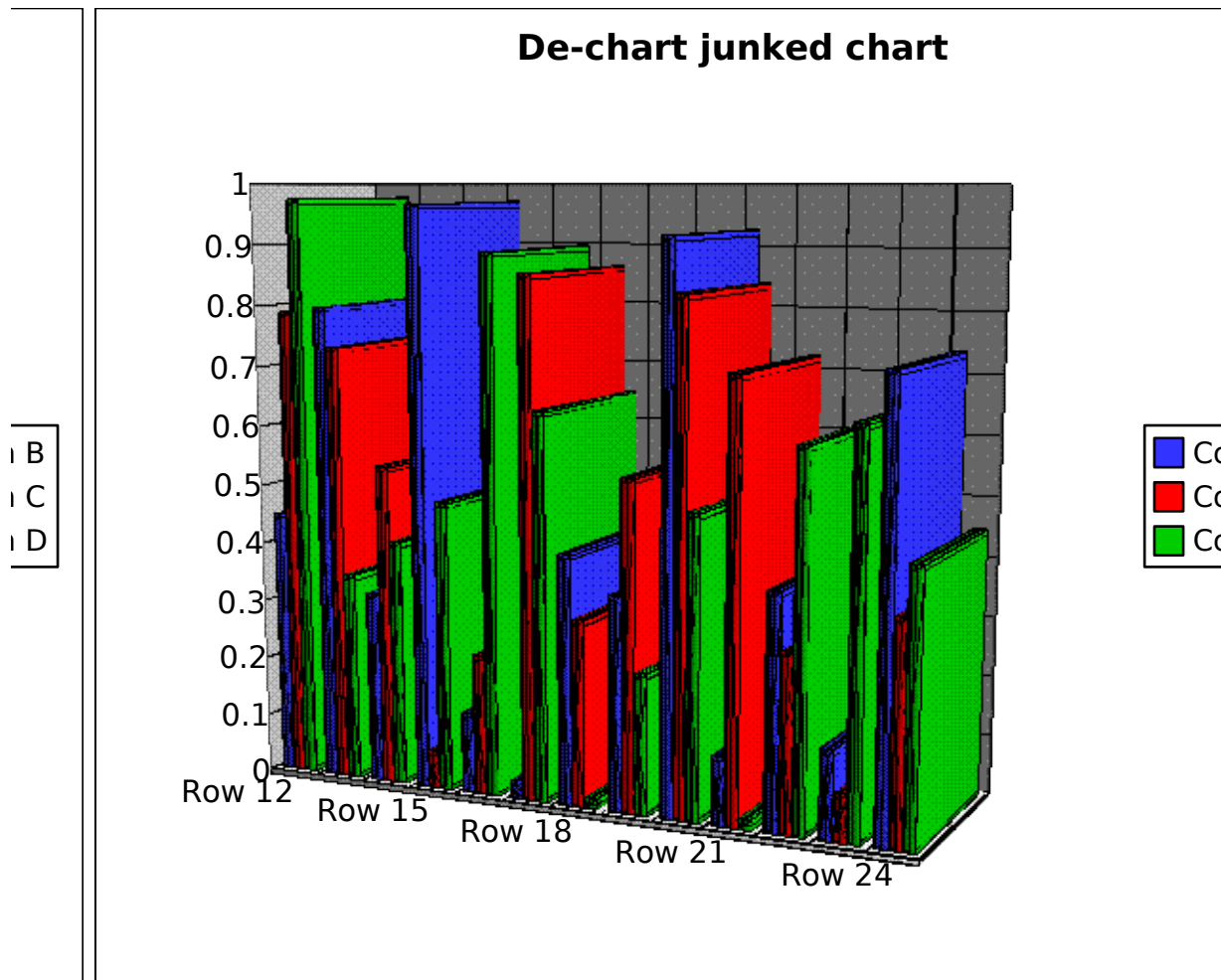
der Area and None under Border)

under Border)
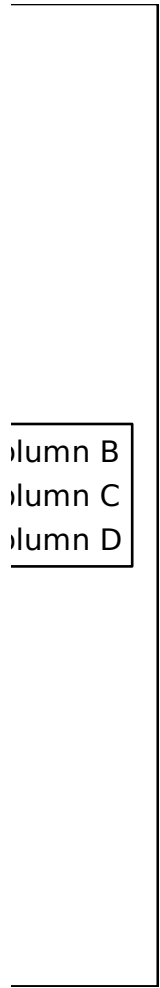
olumn B
olumn C
olumn D

Exercise 3: Secondary Axis

It is often userful to show two related data series in a single chart. If the series have v
you will want to add a second axis. Here's how you do it:
1. On Chart Menu, select Source Data
2. Change the data range to include the second metric
3. You will see that the second series doesn't fit well given the scale on the y-axis
4. Right click on the second series and choose Format Data Series
5. Under the Axis tab, select Secondary axis. The new axis will be auto-scaled for the s

year	amount	second metric
1997	23564	25
1998	27948	25
1999	31500	50
2000	33021	50
2001	35093	70
2002	36927	80
2003	37321	75
2004	41002	65
2005	43982	60
2006	47283	55
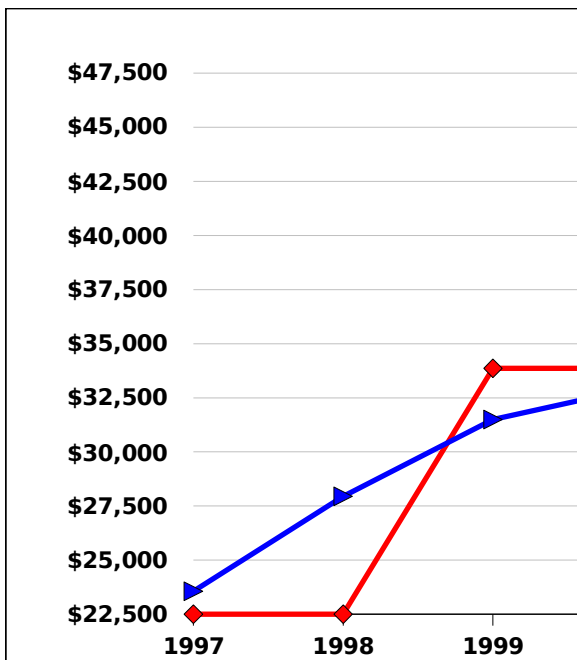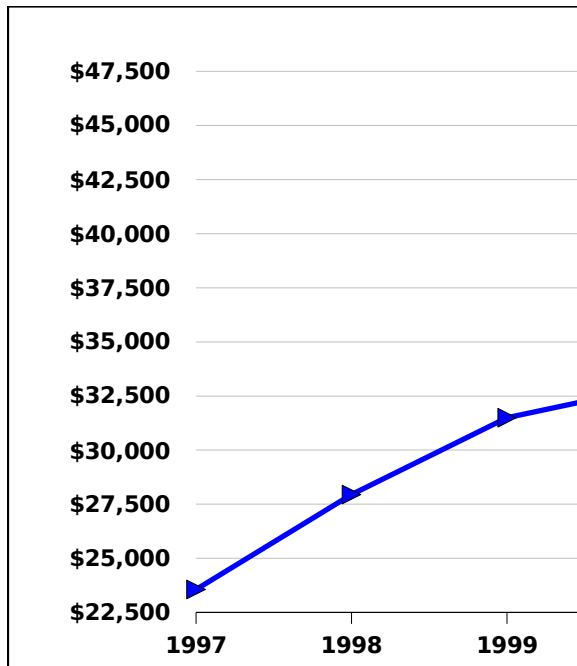
ery different scales

second data series

Amount over Time

2000	2001	2002	2003	2004	2005	2006

Amount over Time

							80
							75
							70
							65
							60
							55
							50
							45
							40
							35
							30
2000	2001	2002	2003	2004	2005	2006	25
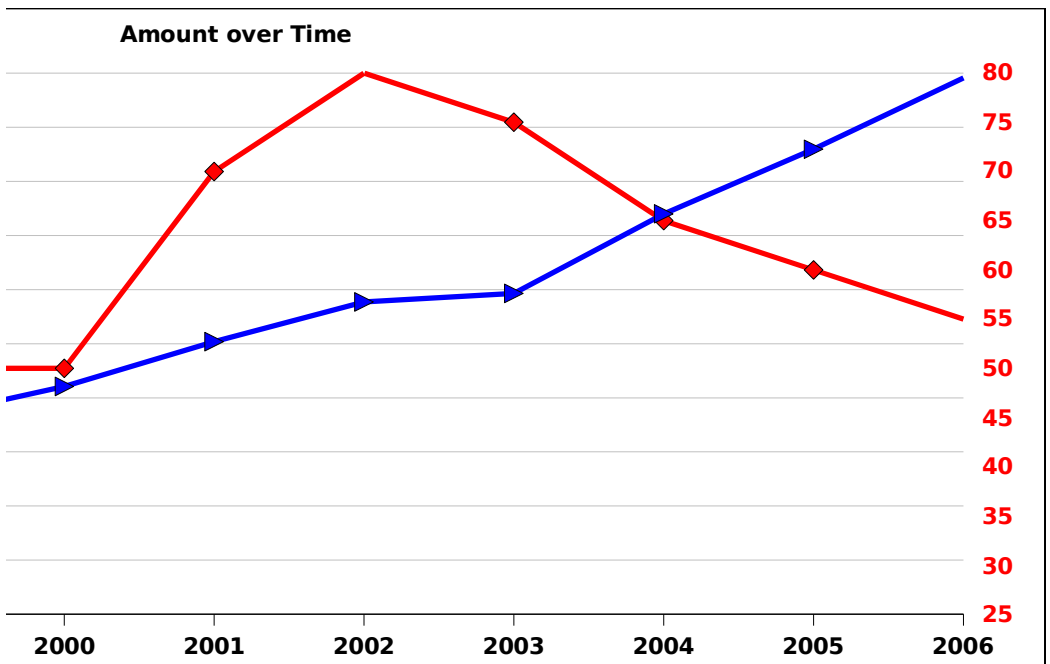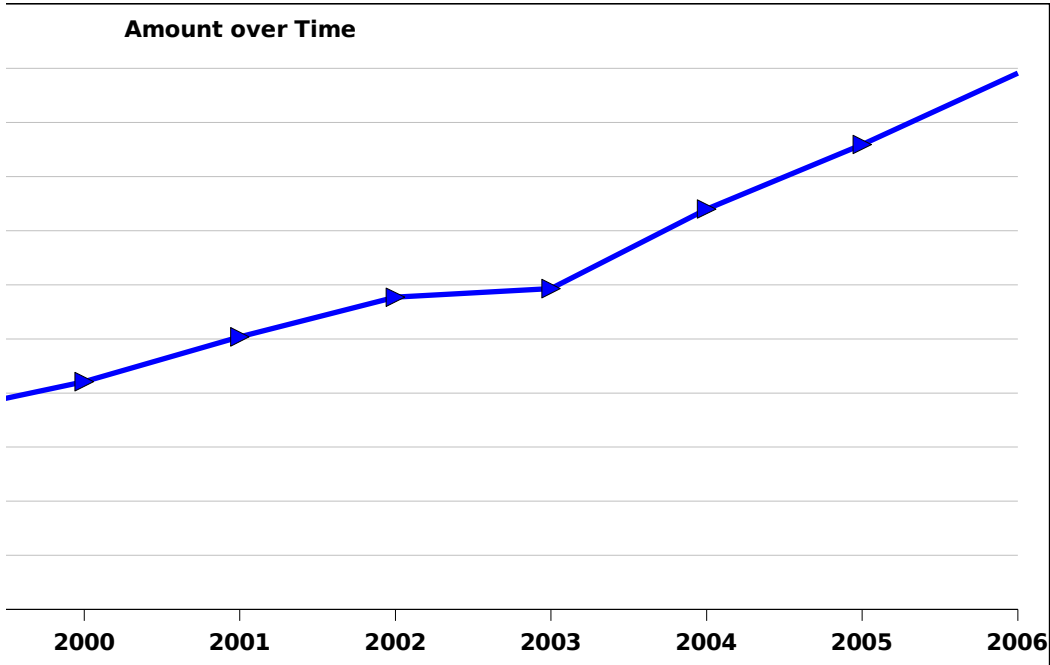
Exercise 4: Mixed Chart Types

You have more flexibility with Excel charts than you may know. Excel gives you the ab
under the customer chart types in the Chart Type dialogue box.

Fortunately, you don't need to depend entirely on these
pre-defined custom types.

Making Mixed Charts is as easy as selecting one of the data ranges
in your chart, right clicking, and selecting Chart Type

**The Chart Type that you select will only apply the the range
you selected**

Practice with the chart below to discover the different combinations
that are possible

7	0.21	0.7
8	0.65	0.04
9	0.31	0.52
10	0.39	0.16
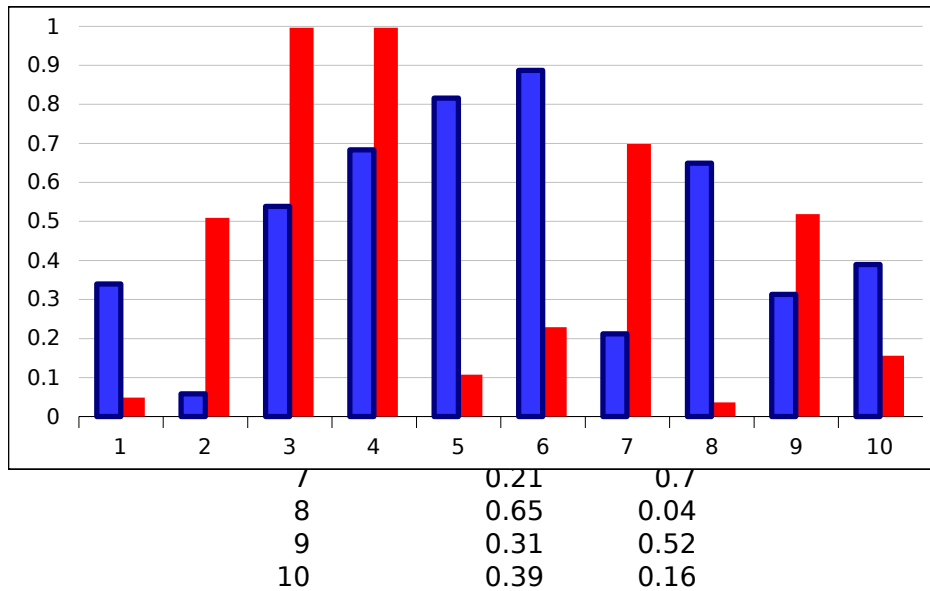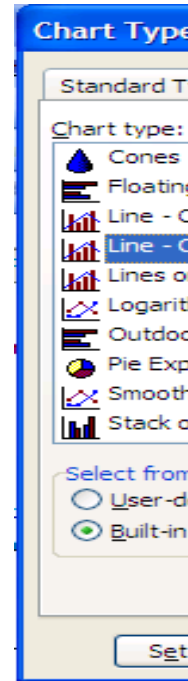
bility to mix certain chart types. You may have seen some of these