

## K<sup>2</sup> Focused Seminar: Excel Formula & Function Basics

Copy, Cut & Paste Techniques		Operators & Order of Precedence																																																																																		
Right Click	Select the cell or range of cells, right click and choose copy (or cut). Choose the destination cell, right click and paste or press Enter to paste.	<b>Please</b> ( ) Parentheses [ (2+4)*10 = 60																																																																																		
Ribbon Commands	Use the ribbon commands on the Home Tab (clipboard group).	<b>Excuse</b> ^ Exponents [10x10 --> 10^2]																																																																																		
Keyboard Shortcuts	<table border="0"> <tr> <td>Copy</td> <td>Ctrl + C</td> </tr> <tr> <td>Cut</td> <td>Ctrl + X</td> </tr> <tr> <td>Paste</td> <td>Ctrl + V</td> </tr> <tr> <td>Duplicate</td> <td>Ctrl + D</td> </tr> </table>	Copy	Ctrl + C	Cut	Ctrl + X	Paste	Ctrl + V	Duplicate	Ctrl + D	<b>My</b> * Multiplication [3*5 = 15]																																																																										
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Drag & Drop	To Cut: Select the text. Position cursor on the border and drag to new location. To Copy: Position the cursor on the board, push CTRL and drag.	<b>Dear</b> / Division [10/2 = 5]																																																																																		
		<b>Aunt</b> + Addition																																																																																		
		<b>Sally</b> - Subtraction																																																																																		
AutoComplete																																																																																				
		<b>AutoComplete</b> examines the data that you have already typed in your worksheet and an automatically fill in what it thinks you are typing, based on what you type. For example, If you enter the name Alice and then start to type Alice again, Excel will automatically complete	<table border="1"> <tr><td>Alice</td></tr> <tr><td>Alice</td></tr> <tr><td>Arnold</td></tr> <tr><td>arnold</td></tr> </table>	Alice	Alice	Arnold	arnold																																																																													
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<p><b>AutoFill</b> will complete lists of repeating or incremental data. Enter two incremental numbers, select them, and then click and drag the small black square in the lower right-hand corner.</p> <table border="1"> <thead> <tr> <th></th> <th>A</th> <th>B</th> </tr> </thead> <tbody> <tr><td>1</td><td>Year</td><td></td></tr> <tr><td>2</td><td>1990</td><td></td></tr> <tr><td>3</td><td>1991</td><td></td></tr> <tr><td>4</td><td>1992</td><td></td></tr> <tr><td>5</td><td>1993</td><td></td></tr> <tr><td>6</td><td>1994</td><td></td></tr> <tr><td>7</td><td>1995</td><td></td></tr> <tr><td>8</td><td>1996</td><td></td></tr> <tr><td>9</td><td>1997</td><td></td></tr> <tr><td>10</td><td>1998</td><td></td></tr> <tr><td>11</td><td>1999</td><td></td></tr> <tr><td>12</td><td>2000</td><td></td></tr> </tbody> </table>			A	B	1	Year		2	1990		3	1991		4	1992		5	1993		6	1994		7	1995		8	1996		9	1997		10	1998		11	1999		12	2000		<p><b>AutoSum</b> can automatically generate the sum of all numerical data above or to the left of the current cell. Click Formulas, then AutoSum. Along with Sums, you can use the AutoSum button to calculate Averages, Minimum, Maximum, and Count.</p> <table border="1"> <thead> <tr> <th></th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> </tr> </thead> <tbody> <tr><td>1</td><td></td><td>Test 1</td><td>Test 2</td><td>Test 3</td><td></td></tr> <tr><td>2</td><td>Day 1</td><td>6586</td><td>5848</td><td>7898</td><td></td></tr> <tr><td>3</td><td>Day 2</td><td>9215</td><td>4587</td><td>6745</td><td></td></tr> <tr><td>4</td><td>Day 3</td><td>1241</td><td>4785</td><td>4523</td><td></td></tr> <tr><td>5</td><td></td><td>=SUM(B2:B4)</td><td></td><td></td><td></td></tr> <tr><td>6</td><td></td><td>SUM(number1, [number2], ...)</td><td></td><td></td><td></td></tr> </tbody> </table>			A	B	C	D	E	1		Test 1	Test 2	Test 3		2	Day 1	6586	5848	7898		3	Day 2	9215	4587	6745		4	Day 3	1241	4785	4523		5		=SUM(B2:B4)				6		SUM(number1, [number2], ...)			
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## AutoCalculate

Select more than one cell with a number in it, Excel will automatically calculate a sum, average, or count and display them in the status bar.

	A	B	C	D	E
1					
2			Test 1	Test 2	Test 3
3		Day 1	87	29	59
4		Day 2	21	65	23
5		Day 3	38	51	94
6					

Ready Average: 51.88888889 Count: 9 Sum: 467

## Some Simple & Useful Functions

SUM =SUM(B4,C2:C12,F2)  
 AVERAGE =AVERAGE(E1:E40)  
 MAXIMUM =MAX(E1:E40)  
 MINIMUM =MIN(E1:E40)  
 NOW =NOW( )

[Now returns the current date & time Press F9 to update]

TODAY =TODAY( )

[Today returns the current date-Press F9 to update]

## Using Insert Function

Click on the Insert function button (fx)  
 Type in a brief description of what you want to do, then click go.

Excel will list recommended formulas.

Click on a formula in the list and under the text box, you will see a definition of the formula.

When you find the appropriate formula, click OK.

In the next window, you must enter the function arguments. Any arguments that appear in bold are required. The others are optional.

Excel will show you the results of function

An alphabetical list of all Excel Functions can be found here: <http://office.microsoft.com/en-us/excel-help/excel-functions-alphabetical-list-HA010277524.aspx>

## Absolute, Relative, & Mixed

**Relative references [A1 or W32]:** The row and column designations will change as they are moved/copied. They have a relationship to their location in the worksheet.

	A	B	C	D
1	Quantity	Cost/Ea	Total Cost	
2	5	\$10.00	=A2*B2	50
3	4	\$50.00	=A3*B3	200
4	15	\$25.00	=A4*B4	375
5	10	\$100.00	=A5*B5	1000

**Absolute references [\$A\$1 or \$W\$32]:** Denoted by a \$ sign in front of the column AND row designation. This means that no matter where the formula is moved or copied, the row and column address will stay the same. It absolutely cannot change. Click behind the cell address and press F4 to cycle through the absolute / relative combinations.

	A	B	C	D
1	Sales	Commission Earned		Commission Rate:
2	\$1,200	=A2*D2	\$60.00	5%
3	\$600	=A3*E3	\$0.00	
4	\$2,100	=A4*E4	\$0.00	No absolutes
5	\$800	=A5*E5	\$0.00	
6				
7	Sales	Commission Earned		Commission Rate:
8	\$1,200	=A8*\$D\$8	\$60.00	5%
9	\$600	=A9*\$D\$8	\$30.00	
10	\$2,100	=A10*\$D\$8	\$105.00	Absolutes
11	\$800	=A11*\$D\$8	\$40.00	

**Mixed references [\$A1; A\$1 or \$W32 ; W\$32]:**

This occurs when only half of the cell address needs to be absolute. The \$ is placed in front of the row OR column to hold just that one part of the cell address steady (or absolute). The part that is not absolute will change as the formula is moved or copied. In the example below, the B (in B\$5) changes, the 5 can't. In \$B23, the B cannot change, the 23 will change.

=B\$5*\$B23	=C\$5*\$B23
=B\$5*\$B24	=C\$5*\$B24