**Microsoft Word Tables vs. Microsoft Excel Tables**
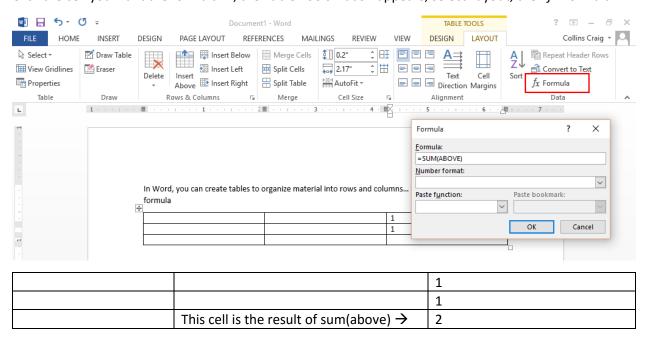
Microsoft Word is used to manipulate words.

In Word, you can create tables to organize material into rows and columns…
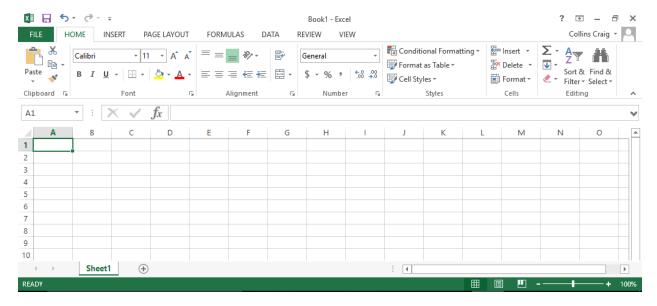such as to organize a résumé.
You can even do a simple formula in a Word table:

|  |  | 1 |
|---|---|---|
|  |  | 1 |
|  |  |  |

Click the cell you want the formula in; the Table Tools ribbon appears, select Layout, then *fx* Formula



|  |  | 1 |
|---|---|---|
|  |  | 1 |
|  | This cell is the result of sum(above) → | 2 |

But Excel is used to manipulate numbers… so it can do a lot more than sum a few digits.



Excel can do formulas, functions (compound or complex formulas), create charts, and much, much more.

Word can format text, Excel can format text
Word can use a table, Excel is a table, with rows and columns intersecting in cells
Word can put a crude formula in a table, Excel is built on robust number crunching

| On paper | In Excel |
|---|---|
| 1+1=? | =1+1, then hit enter key<br>the cell holds the formula, but<br>the cell displays the answer<br><br>(To see the formula, press [Ctrl] ~; to get back to regular view, press [Ctrl] ~ again |
| 1<br>+ 1<br>? | <table><tr><td></td><td>A</td><td>B</td></tr><tr><td>1</td><td>1</td><td></td></tr><tr><td>2</td><td>1</td><td></td></tr><tr><td>3</td><td>=a1+a2</td><td></td></tr><tr><td>4</td><td></td><td></td></tr></table>1. =<br>2. either type in the cell address that hold the first number you want to add, or click on the cell that hold the number you wish to use<br>3. choose the math you want to do (+)<br>4. enter the next value by typing in the cell address that hold the next number you want to use, or click on the cell that hold the number you wish to use<br>5. Hit the enter key |
| 1<br>1<br>1<br>+ 1<br>? | <table><tr><td></td><td>A</td><td>B</td></tr><tr><td>1</td><td>1</td><td></td></tr><tr><td>2</td><td>1</td><td></td></tr><tr><td>3</td><td>1</td><td></td></tr><tr><td>4</td><td></td><td></td></tr></table>In A4, click Σ to have all of the numbers in that range autosummed, which is a fancy formula called a function. The result would look like =SUM(A1:A3).<br><br>More on ranges and functions below. |

A range is a group of cells, defined by upper left hand cell address:lower right hand cell address, such as A1:B2 is

|   | A | B |
|---|---|---|
| 1 | 1 | 3 |
| 2 | 2 | 4 |
| 3 |   |   |
| 4 |   |   |

This could be use in another function (a more complex formula) such as =SUM(a1:b2) would yield 10

Many functions are started by choosing the *fx*

Patterns
If you type in 1, 2, 3… you might expect the pattern to continue as 4, 5, 6. Excel would too. Highlight A1:A3, and you'll notice a box to the lower right. Drag that box down (your cursor changes to a +) to continue the pattern.

|   | A | B |
|---|---|---|
| 1 | 1 | 3 |
| 2 | 2 | 4 |
| 3 | 3 |   |
| 4 |   |   |
|   |   |   |
|   |   |   |

This can work with formulas too. If A4's formula is =SUM(A1:A3), dragging that to B4 would duplicate the pattern of **adding 'everything above**;' B4 would now say =SUM(B1:B3)

Relative addresses (such as adding 'everything above') can be useful, but sometimes you don't want the cell addresses to vary as you drag a formula to a new cell. Maybe you really do want the copy to say =SUM(A1:A3) in both places, and not =SUM(B1:B3) in the second cell… to do that you change the original formula to use something called an absolute address… meaning if the formula gets copied, do NOT change the cell addresses relative to the new formula as the copy occurs.

It looks odd, but it is simple, change the first formula have a $ precede each part of the cell address, such as =SUM($A$1:$A$3).

If you see a cell with #####, this means the cell is not wide enough to display the number. Place your cursor between the two column headings, and when the arrow changes to ↔ ,click and drag to make the column wider.

|   | A | ↔B |
|---|---|---|
| 1 | ######### |   |

Charts can display numerical information in an easy to understand fashion.

Note Pie chart depict parts of a whole, while bar and column charts show side by side comparisons.

|   | A | B |
|---|---|---|
| 1 | As | 15 |
| 2 | Bs | 20 |
| 3 | Cs | 15 |
| 4 |   |   |

Select the cells, then choose the Insert tab, then choose the chart type, and select one.
This is parts of a whole so, choose Pie Chart, then next.
Go on to the next option box, and choose labels, and select values, etc. Click Finish.

PS This chart can be copied from Excel, and put into Word.
If you want changes in Excel to always reflect in the Chart in Word
    1.  Copy the chart in Excel
    2.  Switch to Word
    3.  Choose the ⌄ at the bottom of the [Paste ⌄] button, then choose Paste Special
    4.  Choose Paste link and select the chart object.