Excel & Business Math
Video/Class Project #02
Copying Formulas with Relative & Absolute Cell References

Relative & Absolute Cell References in Formulas

1. Relative Cell Reference:
   1) Cell references that will move throughout the copy action.
   2) "Relative" means that from the formulas point of view, where is the formula going to look? How many cells up or down or left or right from the cell that contains the formula, should the formula look?

2. Absolute Cell References are Cell References that "Do Not Move" as you copy a formula.
   1) Cell references that is always locked throughout the copy action.
   2) "Absolute" means that as you copy the formula, the Cell Reference will is "locked" and will always look at the original cell as the formula is copied. For example, in this formula: =B14+$E$14, no matter where you copy the formula, the formula will always look at Cell E14.
   3) When your cursor is touching a cell reference, if you hit the F4 key, the F4 key will put one dollar sign in from of the letter (column reference) and one dollar sign in front of the number (row reference).
   4) The dollar signs lock the column and row references so that they cannot move during the copy action.

3. F4 Key:
   1) Note: On a Laptop Computer you may have to use the Fn key to get the F4 key to work.
   2) As seen here from page 2 in syllabus:

3. Laptop computers have many different configurations. But if you have a laptop, you may have to access the F Keys using the Fn button (Function key). Here is a picture of a Surface Laptop Keyboard:

Fn Key must be used to access F Keys

4.

4. Example 2 from Video:

	A	B	C	D	E	F	G
8	**Example 2:**						
9	We Are Copying Formula, So We Must Think About What Type Of Cell References Goes Into Formula						
10			Formula:				
11			Total Pay = Net Pay + Holiday Bonus (Locked or Absolute)				
12							
13	**Employee**	**Net Pay**	**Total Pay**		**Holiday Bonus**		
14	Tyrone Giron	1159.74	=B14+$E$14		100		
15	Carman Brandon	983.69	1083.69				
		691.13	791.13		**Relative Cell Reference** = Moves Throughout Copy Action		
	wyer	787.69	887.69		**Absolute Cell Reference** = Locked Throughout Copy Active		
		622.29	722.29		**F4 Key** = Adds Dollar Signs to lock Cell Reference		
	ery	671.53	771.53				
	o	615.59	715.59				
	r	576.79	676.79				
		1072.5	1172.5				
	Ng	1060.35	1160.35				

When the formula is copied, B14 is a Relative Cell Reference that will always look "One Cell To Left" of cell with formula.

When the formula is copied, $E$14 is an Absolute Cell Reference (Locked Cell Reference) that will always look at cell E14.

New Keyboard Shortcut & Mouse Tricks:

1) **F4 Key** Locks Cell Reference (makes it an Absolute Cell Reference)
   When your cursor is touching a cell reference, if you hit the F4 key, the F4 key will put one dollar sign in from of the letter (column reference) and one dollar sign in front of the number (row reference).

   i. **Note:** On a Laptop Computer you may have to use the Fn key to get the F4 key to work.