Advance Excel Assignment 2

1. What does the dollar($) sign do?

- The dollar sign fixes the reference to a given cell, so that it **remains unchanged** no matter where the formula moves.
- In other words, using $ in cell references allows you to copy the formula in Excel without changing references.

2. How to Change the Reference from Relative to Absolute (or Mixed)?

- By default, a cell reference is a relative reference, which means that the reference is relative to the location of the cell.
- The table below summarizes how a reference type updates if a formula containing the reference is copied two cells down and two cells to the right.

For a formula being copied:	If the reference is:	It changes to:
	A1 (absolute column and absolute row)	A1 (the reference is absolute)
	A$1 (relative column and absolute row)	C$1 (the reference is mixed)
	$A1 (absolute column and relative row)	$A3 (the reference is mixed)
	A1 (relative column and relative row)	C3 (the reference is relative)

3. Explain the order of operations in excel?

Excel evaluates the operators from left to right.

Order	Symbols	Operation	Example
1	()	Parentheses	=(5-2)*4 = 12
2	: ,	Reference operators	=SUM(A1:A5)
3	-	Negation	=-3^2 = 9
4	%	Percent	=5%*100 = 5
5	^	Exponentiation	=5^2*2 = 50
6	* /	Multiplication and Division	=7-6/2 = 4
7	+ -	Addition and Subtraction	=6/2+1 = 4
8	&	Concatenation	="score: "&5+1 = score: 6
9	> < = <>	Logical comparisons	=3^2>5+3 = TRUE

4. What, according to you, are the top 5 functions in excel and write a basic syntax for any of two?

1. **SUM**= is the basic arithmetic operation of addition. number, reference to a cell or a range of cells

Syntax: =SUM(*number1*, [number2], …)

2. **Average**= Finds an average, or arithmetic mean, of numbers.
   Syntax: `=AVERAGE(number1, [number2], …)`

3. **COUNT** = The COUNT function counts the number of cells that contain numbers and counts numbers within the list of arguments. Use the COUNT function to get the number of entries in a number field that is in a range or array of numbers.
   Syntax: `=COUNT(value1, [value2], …)`

   While the COUNT function deals only with those cells that contain numbers, the COUNTA function counts all cells that are not blank.
   Syntax: `=COUNTA (value1, [value2], …)`

4. **MAX & MIN =** The MAX and MIN formulas in Excel get the largest and smallest value in a set of numbers, respectively. For our sample data set, the formulas will be as simple as:
   Syntax: `=MAX(number,,[number2],..)` & `=MAX(number,,[number2],..)`

5. **IF =** The IF function is one of the most popular functions in Excel, and it allows you to make logical comparisons between a value and what you expect.the function to use.
   So an IF statement can have two results. The first result is if your comparison is True, the second if your comparison is False.
   Syntax: `=IF(logical_test, [value_if_true], [value_if_false])`

5. When would you use the subtotal function?

The SUBTOTAL function is designed for columns of data vertical ranges. It is not designed for rows of data or horizontal ranges.

6. What is the syntax of the Vlookup function? Explain the terms in it?

Syntax:
`=VLOOKUP(lookup_value, table_array, col_index_num,[range_lookup])`