Advance Excel Assignment 2

1. What does the dollar ($) sign do?
2. The dollar sign ($) is used as an absolute reference marker in cell references within formulas. When you use a dollar sign in a cell reference, it locks either the row, the column, or both, depending on where you place the dollar sign. This is useful when you want to keep a specific row or column constant while copying the formula to other cells.
3. How to Change the Reference from Relative to Absolute (or Mixed)?

A. Cell references can be changed from relative to absolute or mixed by adding or removing the dollar sign ($) in the reference.

**a**. **To change a relative reference to an absolute reference**:

* Click on the cell containing the formula you want to edit.
* Select the part of the reference (either the column letter or the row number) that you want to make absolute.
* To make it an absolute reference, add a dollar sign ($) in front of both the column letter and the row number. For example, changing **A1** to **$A$1** will make it an absolute reference.

**b. To change a relative reference to a mixed reference**:

* Click on the cell containing the formula you want to edit.
* Select the part of the reference (either the column letter or the row number) that you want to lock.
* To create a mixed reference, add a dollar sign ($) in front of the part you want to lock. For example, changing **A1** to **$A1** will lock the column and allow the row to change when you copy the formula.

1. Explain the order of operations in excel?
2. When evaluating a formula, Excel follows a standard math protocol called “order of operations". In general, Excel's order of operation follows the acronym PEMDAS (Parentheses, Exponents, Multiplication, Division, Addition, Subtraction) but with some customization to handle the formula syntax in a spreadsheet.

In summary, Excel solves formulas in the following order:

1. Parentheses
2. Reference operators
3. Exponents
4. Negation
5. Percent
6. Multiplication and Division
7. Addition and Subtraction
8. Concatenation
9. Logical operators

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

A. Top 5 functions that are useful for data analysis.

* 1. SUMIFS
  2. COUNTIFS
  3. CONCATENATE
  4. VLOOKUP
  5. LEFT/RIGHT

CONCATENATE: -

The CONCATENATE function **combines the values from multiple cells** into one.

Syntax: =CONCATENATE (text1, text2, text3, …)

VLOOKUP: -

VLOOKUP will **look for a value in a table and return information** from another column related to that value.

Syntax: =VLOOKUP (lookup value, table array, column index number, range lookup)

5. When would you use the subtotal function?

A. You would use the SUBTOTAL function in Excel when you need to perform calculations on a filtered or sorted dataset. SUBTOTAL is particularly useful in situations where you want to exclude hidden (filtered out) rows from your calculations. It allows you to apply various functions, like SUM, AVERAGE, COUNT, etc., to a visible subset of your data, making it handy for creating summary reports or performing analysis on specific subsets of your dataset.

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

A. The VLOOKUP function is one of the most commonly used and recognizable functions in Excel.

It will **look for a value in a table and return information** from another column related to that value.

It is great for combining data from different lists into one or comparing two lists for matching or missing items. It is an important tool in Excel data analysis.

It prompts for four pieces of information:

* The value you want to look for
* Which table to look at?
* Which column has the information you want to return
* What type of lookup would you like to perform?

= VLOOKUP (lookup value, table array, column index number, range lookup)