Here are the answers to Advanced Assignment 2:

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

- The dollar sign (`$`) in is used to create an absolute reference in a formula. When you place `$` before the row or column (or both), it locks that reference, so it doesn’t change when you copy the formula to another cell.

- Example:

- `$A$1`: Both row and column are locked (absolute reference).

- `$A1`: Column is locked but row is relative (mixed reference).

- `A$1`: Row is locked but column is relative (mixed reference).

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

- You can change a reference from relative to absolute or mixed by using the F4 key while editing the cell reference in a formula. Pressing F4 repeatedly toggles between:

- Absolute reference (`$A$1`)

- Mixed reference (`A$1` or `$A1`)

- Relative reference (`A1`)

3. Explain the order of operations in ?

- The order of operations in follows PEMDAS (or BODMAS) rule:

1. Parentheses: Operations inside parentheses are evaluated first.

2. Exponents: Next, any exponential calculations (like `^` for power) are evaluated.

3. Multiplication and Division: Performed from left to right.

4. Addition and Subtraction: Also from left to right.

- Example: `=3 + 2 \* (4 - 1) ^ 2` would evaluate the parentheses first, then exponents, then multiplication, and finally addition.

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

- Top 5 functions:

1. SUM(): Adds a range of numbers.

2. IF(): Performs a logical test and returns different values based on whether the condition is TRUE or FALSE.

3. VLOOKUP(): Looks up a value in a table.

4. INDEX() & MATCH(): Retrieves a value from a table based on row and column.

5. COUNTIF(): Counts the number of cells that meet a condition.

- Syntax for SUM():

```

=SUM(number1, [number2], ...)

```

- Syntax for IF():

```

=IF(logical\_test, value\_if\_true, value\_if\_false)

```

5. When would you use the SUBTOTAL function?

- You would use the SUBTOTAL function when you need to perform a summary operation (like SUM, AVERAGE, COUNT, etc.) on a filtered dataset. Unlike regular functions like SUM, the SUBTOTAL function only includes visible rows in its calculations when a filter is applied.

- Example: When calculating the total value of sales after filtering out specific items.

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

- Syntax of VLOOKUP:

```

=VLOOKUP(lookup\_value, table\_array, col\_index\_num, [range\_lookup])

```

- lookup\_value: The value you want to search for in the first column of the table.

- table\_array: The range of cells that contains the data (the table).

- col\_index\_num: The column number in the table from which you want to return a value.

- range\_lookup: Optional argument; `TRUE` for an approximate match or `FALSE` for an exact match.