Q1. What does the dollar($) sign do in excel?

In Excel, the dollar sign ($), also known as the "absolute reference operator," is used to create an absolute cell reference. An absolute cell reference is a cell address that remains fixed, or "absolute," when the formula that contains the reference is copied and pasted to other cells.

Here are a few examples of how the dollar sign is used to create an absolute cell reference:

$A$1: This is an absolute reference to cell A1, which means that the reference to cell A1 will not change when the formula is copied and pasted to other cells.

A$1: This is a mixed reference to cell A1, which means that the column reference (A) is absolute, but the row reference (1) is relative. This means that when the formula is copied and pasted to other cells, the reference to column A will not change, but the reference to row 1 will change.

$A1: This is a mixed reference to cell A1, which means that the row reference (1) is absolute, but the column reference (A) is relative. This means that when the formula is copied and pasted to other cells, the reference to row 1 will not change, but the reference to column A will change.

You can use the dollar sign to create absolute references to cells, columns, or rows depending on your requirement. For example, If you are creating a formula that needs to reference a specific cell and you want that reference to stay the same even when you copy the formula to other cells, you should use an absolute cell reference with the dollar sign.

Q2. How to Change the Reference from Relative to Absolute (or Mixed)?

There are a few ways to change a cell reference from relative to absolute (or mixed) in Excel:

Manually editing the cell reference: You can manually add the dollar sign ($) to the cell reference in the formula to make it absolute. For example, if you want to make the reference to cell A1 absolute, you would change the reference from "A1" to "$A$1" in the formula.

Using the F4 key: You can use the F4 key to quickly change a cell reference from relative to absolute (or mixed). To use this method, simply select the cell reference in the formula and press the F4 key. Each time you press the F4 key, the cell reference will change between relative, absolute, and mixed references.

Using the Ribbon: You can use the Ribbon to change the cell reference to an absolute reference. Click on the "Formulas" tab in the Ribbon, then click on "Insert Function" button (fx) and select "More Functions" and then "Information" and then "ADDRESS" function. This function will give you the option to select the reference type as Absolute, Relative and R1C1.

It's worth noting that when you change the reference type, it will change only the selected cell reference. If you are copying and pasting the formula, the reference type will change as per the new location of the formula.

Q3. Explain the order of operations in excel?

The order of operations in Excel, also known as the order of precedence, determines the order in which Excel performs mathematical operations in a formula. Excel follows the standard order of operations, also known as the "PEMDAS" rule, which stands for Parentheses, Exponents, Multiplication and Division, and Addition and Subtraction.

Here's a brief explanation of the order of operations in Excel:

Parentheses: Excel performs any calculations inside parentheses first.

Exponents: Excel performs any exponentiation (raising a number to a power) next.

Multiplication and Division: Excel performs any multiplication and division operations from left to right. If a formula contains both multiplication and division, Excel performs the multiplication and division in the order in which they appear in the formula.

Addition and Subtraction: Excel performs any addition and subtraction operations from left to right. If a formula contains both addition and subtraction, Excel performs the addition and subtraction in the order in which they appear in the formula.

It's worth noting that, Excel also follows the order of operations when evaluating logical and comparison operators. For example, Excel will evaluate any logical operators (such as AND, OR) before evaluating comparison operators (such as =, >, <) in a formula.

It's also important to keep in mind that the order of operations in Excel can be overridden by using parentheses. You can use parentheses to specify the order of operations in a formula, and Excel will always perform the calculations inside the parentheses first.

Q4. What, according to you, are the top 5 functions in excel and write a basic syntax

for any of two?

The top 5 functions in Excel are subjective and can vary depending on the user's needs and level of expertise, but here are a few commonly used functions that are considered to be very useful:

SUM: This function adds all the numbers in a range of cells. The basic syntax for the SUM function is =SUM(range). For example, =SUM(A1:A10) would add all the numbers in cells A1 through A10.

IF: This function allows you to perform a logical test and return one value if the test is true and another value if the test is false. The basic syntax for the IF function is =IF(logical\_test, value\_if\_true, value\_if\_false). For example, =IF(A1>10,"Greater than 10","Less than or equal to 10") would check the value in cell A1 and return "Greater than 10" if the value is greater than 10 and "Less than or equal to 10" if the value is less than or equal to 10.

VLOOKUP: This function looks up a value in a table and returns a corresponding value from a specified column. The basic syntax for the VLOOKUP function is =VLOOKUP(lookup\_value, table\_array, col\_index\_num, [range\_lookup]). For example, =VLOOKUP(A1,B1:D5,3,FALSE) would look up the value in cell A1 in the table range B1:D5 and return the corresponding value from the 3rd column in the table, with an exact match.

COUNTIF: This function counts the number of cells within a range that meet a specified criteria. The basic syntax for the COUNTIF function is =COUNTIF(range, criteria). For example, =COUNTIF(A1:A10,">50") would count the number of cells in the range A1:A10 that contain a value greater than 50.

INDEX/MATCH: This function returns a value from a table based on the intersection of a row and column. The basic syntax for the INDEX function is =INDEX(array, row\_num, [col\_num]), and the basic syntax for the MATCH function is =MATCH(lookup\_value, lookup\_array, [match\_type]). These two functions are often used together in a formula like =INDEX(A1:C3,MATCH(B1,A1:A3,0),2) to look up a value in column A and return a corresponding value from column B.

Keep in mind that these are just a few examples of the many functions that Excel offers, and there are many more functions that can be useful depending on your specific needs.

Q5. When would you use the subtotal function?

The SUBTOTAL function in Excel is used to perform a specific type of calculation on a range of data that has been grouped or sorted. The function can perform a variety of calculations, such as sum, average, count, and others, depending on the argument passed to the function.

Here are a few examples of when you might use the SUBTOTAL function:

When working with large data sets that have been grouped or sorted: If you have a large data set that has been grouped or sorted into different sections, you can use the SUBTOTAL function to perform calculations on specific sections of the data without including the hidden rows or columns.

When you need to perform multiple calculations on the same data: You can use the SUBTOTAL function to perform different calculations on the same data set, such as summing one column and averaging another.

When you need to perform a calculation that excludes certain values: You can use the SUBTOTAL function to exclude certain rows or columns from the calculation, by passing an argument to the function that tells it to ignore hidden rows or columns.

When you need to perform a calculation based on a specific criteria: You can use the SUBTOTAL function to perform calculations based on a specific criteria, such as counting the number of cells that contain a specific value.

The basic syntax for the SUBTOTAL function is =SUBTOTAL(function\_num, range), where function\_num is a number that represents the type of calculation you want to perform (e.g. 1 for SUM, 2 for COUNT), and range is the range of cells on which you want to perform the calculation.

Q6. What is the syntax of the vlookup function? Explain the terms in it?

The VLOOKUP (Vertical Lookup) function in Excel is used to search for a specific value in a table and return a corresponding value from a different column in the same row. The basic syntax for the VLOOKUP function is:

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

Here are the terms in the VLOOKUP function:

lookup\_value: The value that you want to look up in the first column of the table.

table\_array: The table that contains the data that you want to search. This can be a reference to a range of cells or a named range.

col\_index\_num: The column number in the table that contains the value that you want to return. This should be a number greater than 1.

range\_lookup: (Optional) This argument is a logical value (TRUE or FALSE) that specifies whether the function should return an approximate or an exact match. If set to TRUE (or omitted), the function will return an approximate match. If set to FALSE, it will return an exact match.

It is important to note that the lookup\_value in the VLOOKUP function must be in the first column of the table\_array and the table\_array must be in ascending order by the first column, otherwise vlookup function can't give the correct result.

In summary, the VLOOKUP function is used to look up a specific value in a table and return a corresponding value from a different column in the same row. It requires the following inputs: a value to look up, a table to look in, the column number in the table that contains the value to return, and an optional argument to specify whether to return an approximate or an exact match.