Formulas

Formulas are three types.

Text Formulae:

Uses text and may contain the text operator ampersand(&), that concatenates two numbers.

Eg: Typing =123&456 in a cell, displays 123456 in that cell.

Numeric Formulae:

Contains arithmetic operators like +,-,*,/,^ and % .

Eg: (A1+A2+A3+A4) or A1:A4.

Logical Formulae:

Contains comparison operators like >,<,<=,>= and <>.

- A formula can be up to 255 characters long. A formula must always begin with an '+','+'or a '-'sign.
- Formulas do not accept spaces, except between sets of letters, numbers or symbols enclosed in quotation marks.

Order of Evaluation of Operators:

Operator	Description	Precedence
:	Range of cells	1
Space	Intersection of cells	2
,	Union of cells	3
-	Negation	4
%	Percentage	5
^	Exponentiation	6
*	Multiplication	7
/	Division	7
+	Addition	8
-	Subtraction	8
&	Concatenation	9
=	Equal to	10
<	Lesser than	10
>	Greater than	10
<=	Lesser than equal to	10
>=	Greater than equal to	10
<>	Not Equal to	10

Entering a Formula:

Two Ways:

1.Typing the formula:

- Select the cell in which the formula calculation has to appear.
- Type the equal sign '=', or click the Edit Formula button =in the formula bar.
- Type the formula and press Enter.

2.Selecting cell references:

- Select the cell in which the formula's result has to be displayed.
- Type the equal sign '='or click the Edit Formula button in the Formula bar.
- Click the cell whose address has to appear first in the formula. We can also click a cell in a different worksheet or workbook. The cell address appears in the formula bar.
- Type the mathematical operator after the value to indicate the next operation to be performed. The operator appears in the Formula bar.
- Continue to click the cells and type the operators till the formula is complete and press Enter.

Referencing methods:

Relative Referencing:

A formula can be moved from one worksheet location to another. When a formula is moved, the cell address are automatically changed relative to the location to which they are moved. This is known as Relative referencing.

Absolute referencing:

To refer to the same specific cell on the worksheet in every copy of the formula. The absolute referencing method is used in such cases.

Absolute references are denoted by dollor signs before the column and row addresses
Eg: A2.

Mixed referencing:

Some part of the address needs to be fixed , mixed referencing is used. Mixed references contains both absolute and relative cell addresses, like $A2 or C$4. To quickly cycle through the reference types, click the formula bar and press F4. This will change the reference to A1,A$1,$A1 and A1 with each press.

Note:

An Excel worksheet contains 256 columns and 65536 rows

Functions:

Functions are special pre-written formulae that take values and perform operations and then returns a value to the cell in which thy are entered.Functions simplify and shorten formulae in the worksheet.

Eg:instead of using the formula =a1+a2+a3+a4+a5 we can use the function =SUM(a1:a5).

Specifying arguments:

Arguments are values that are passed to the functions to perform operations. The number of arguments in a function varies between 0 and 14 and the length is restricted to 255 characters including quotation marks,if any. Arguments can be constants, cells or ranges,Range names or Functions.

Common Functions:

Function	Purpose
SUM	Add the values in the selected range
MIN	Find the minimum value in the selected
MAX	Find the maximum value in the selected
AVERAGE	Average the values in a selected range
COUNTIF	Count all value
SUMIF	Add together all values that meet specific
VLOOKUP AND HLOOKUP	Find a valued in a table.
IF	Display a value that depends on the set
PMT	Calculate the payment for specific loan term
NOW	Return current date and time

Formatting:

Rotate cell Entries:

- Select the cells that have to be rotated.
- Click Formatàcells.
- On the Alignment tab, under orientation, click in
- The half-circle to set a rotation angle .
- Click ok.