Functions :

Mathematical and statistical functions:

1. SUM( ) – Adds all the numbers of specified range.
   Example : If the cells A1:A5 contain values 10, 20, 30, 40 and 50 then
   =SUM(A1:A5) returns 150
   =SUM(A1:A4) returns 100

2. AVERAGE( ) - Returns the average (arithmetic mean) of specified range.
   Example : If the cells A1:A5 contain values 10, 20, 30, 40 and 50 then
   =AVERAGE(A1:A5) returns 30
   =AVERAGE(A1:A4) returns 25

3. MAX( ) – Returns the largest value from specified range.
   Example : If the cells A1:A5 contain values 10, 20, 30, 40 and 50 then
   =MAX(A1:A5) returns 50
   =MAX(A1:A4) returns 40

4. MIN( ) – Returns the smallest value from specified range.
   Example : If the cells A1:A5 contain values 10, 20, 30, 40 and 50 then
   =MIN(A1:A5) returns 10
   =MIN(A2:A5) returns 20

5. COUNT( ) – Returns the number of values from specified range.
   Example : If the cells A1:A5 contain values 10, 20, 30, 40 and 50 then
   =COUNT(A1:A5) returns 5
   =COUNT(A1:A4) returns 4

6. SQRT( ) – Returns the positive square root from specified value.
   Example :
   =SQRT(81) returns 9
   =SQRT(144) returns 12

7. INT( ) – Returns a number down to the nearest integer.
   Example :
   =INT(1.2) returns 1
   =INT(-1.2) returns -2

8. MOD( ) - Returns the remainder after number is divided by divisor.
   Example :
   =MOD(13,5) returns 3
   =MOD(28,10) returns 8

9. ABS( ) - Returns the absolute value of a number. If number is negative it multiplies by -1 otherwise it returns as it is.
   Examples
   =ABS(12) returns 12
   =ABS(-12) returns 12

10. CEILING( ) – Returns number rounded up, away from zero, to the nearest multiple of significance.
    Example :
    =CEILING(12,5) returns 15
    =CEILING(28,10) returns 30

11. FLOOR( ) – Returns number down, towards zero, to the nearest multiple of significance.
    Example :

=FLOOR(12,5) returns 10
=FLOOR(28,10) returns 20

12. ROUND( ) – Rounds a number to a specified number of digits.
    Example :
    =ROUND(34.8493,2) returns 34.85
    =ROUND(34.4343,2) returns 34.43

13. ROUNDDOWN( ) – Rounds a number down towards zero.
    Example :
    =ROUNDDOWN(34.8493,2) returns 34.84
    =ROUNDDOWN(34.4343,2) returns 34.43

14. ROUNDUP( ) – Rounds a number up, away from zero.
    Example :
    =ROUNDUP(34.8493,2) returns 34.85
    =ROUNDUP(34.4343,2) returns 34.44

Financial Functions

1. PMT( ) - Calculates the payment for a loan, based on constant payments and a constant interest rate.
   Example
   From a bank we have taken a loan of Rs. 10,00,000 with interest rate at 8% p.a. and we are going to repay it in 10 years with monthly installments. Calculate payment (monthly installment)
   =PMT(rate,nper,pv)
   =PMT(8%/12,120,1000000)

2. PPMT( ) - Calculates the principal payment of given installment for a loan, based on constant payments and a constant interest.
   Example
   From a bank we have taken a loan of Rs. 10,00,000 with interest rate at 8% p.a. and we are going to repay it in 10 years with monthly installments. Calculate principal payment of 1st installment.
   =PPMT(rate,per,nper,pv)
   =PPMT(8%/12,1,120,1000000)

3. IPMT( ) - Calculates the interest payment of given installment for a loan, based on constant payments and a constant interest.
   Example
   From a bank we have taken a loan of Rs. 10,00,000 with interest rate at 8% p.a. and we are going to repay it in 10 years with monthly installments. Calculate interest payment of 3rd installment.
   =IPMT(rate,per,nper,pv)
   =IPMT(8%/12,3,120,1000000)

4. RATE( ) - Calculates the Interest rate for a loan, based on constant payments,
   Example
   From a bank we have taken a loan of Rs. 10,00,000 and we are going to repay it in 10 years with monthly installments (Rs. xxxxx). Calculate interest rate.
   =RATE(nper,-pmt,pv)
   =RATE(120,-xxxxx,1000000)

5. NPER( ) - Calculate the number of period for loan, based on constant payment and constant interest rate.
   Example
   From a bank we have taken a loan of Rs. 10,00,000 with interest rate at 8% p.a. and monthly installment is Rs. xxxxxx. Calculate number of period of installments.
   =NPER(rate,-pmt,pv)

=NPER(8%/12,-xxxxxx,1000000)

6. PV( ) - Calculate the present value (loan amount), based on constant payment and constant interest rate and constant no of period.
   Example
   From a bank we have taken a loan with interest rate at 8% p.a. and we are going to repay it in 10 years with monthly installments (Rs. xxxxx). Calculate present value (loan amount).
   =PV(rate, nper , -pmt)
   =PV(8%/12,120,-xxxxx)

7. FV( ) - Calculate the future value of an investment.
   Example
   If we are going to save Rs. 3,000 every month for next 5 years and interest rate is 8% p.a. then to find out what will be amount we will receive after 5 years.
   =FV(rate, nper, -pmt)
   =FV(8%/12, 60, -3000)

-x-x-==========-x-x-