Excel Formulas Cheat Sheet

Database Functions

- **DAVERAGE** This function will return the average of selected database entries
- **DCOUNT** This function will count the cells that contain numbers in a database
- **DCOUNTA** This function will count the nonblank cells in a database
- **DGET** This function will extract from a database, a single record that matches the specified criteria
- **DMAX** This function will return the maximum value from selected database entries
- **DMIN** This function will return the minimum value from selected database entries
- **DSTDEV** This function will estimate the standard deviation based on a sample of selected database entries
- **DPRODUCT** This function will multiply the values in a particular field of records that match the criteria in a database
- **DSTDEVP** This function will calculate the standard deviation based on the entire population of selected database entries
- **DSUM** This function will add the numbers in the field column of records in the database that match the criteria
- **DVAR** This function will estimate the variance based on a sample from selected database entries
- **DVARP** This function will calculate the variance based on the entire population of selected database entries

Date and Time Functions

- **DATE** This function will return the serial number of a particular date
- **DATEVALUE** This function will convert a date in the form of text to a serial number
- **DAY** This function will convert a serial number to a day of the month
- **DAYS360** This function will calculate the number of days between two dates based on a 360-day year
- **EDATE** This function will return the serial number of the date that is the indicated number of months before or after the start date
- **EOMONTH** This function will return the serial number of the last day of the month before or after a specified number of months
- **HOUR** This function will convert a serial number to an hour
- **MINUTE** This function will convert a serial number to a minute
- **MONTH** This function will convert a serial number to a month
- **NETWORKDAYS** This function will return the number of whole workdays between two dates
- **NOW** This function will return the serial number of the current date and time
- **SECOND** This function will convert a serial number to a second
- **TIME** This function will return the serial number of a particular time
- **TIMEVALUE** This function will convert a time in the form of text to a serial number
- **TODAY** This function will return the serial number of today's date
- **WEEKDAY** This function will Convert a serial number to a day of the week

- **WEEKNUM** This function will convert a serial number to a number representing where the week falls numerically with a year
- **WORKDAY** This function will return the serial number of the date before or after a specified number of workdays
- **YEAR** This function will convert a serial number to a year
- **YEARFRAC** This function will return the year fraction representing the number of whole days between start_date and end_date

Engineering Functions

- **BESSELI** This function will return the modified Bessel function In(x)
- **BESSELJ** This function will return the Bessel function Jn(x)
- **BESSELK** This function will return the modified Bessel function Kn(x)
- **BESSELY** This function will return the Bessel function Yn(x)
- **BIN2DEC** This function will convert a binary number to decimal
- **BIN2HEX** This function will converts a binary number to hexadecimal
- **BIN2OCT** This function will convert a binary number to octal
- **COMPLEX** This function will convert real and imaginary coefficients into a complex number
- **CONVERT** This function will convert a number from one measurement system to another
- **DEC2BIN** This function will convert a decimal number to binary
- **DEC2HEX** This function will convert a decimal number to hexadecimal
- **DEC2OCT** This function will convert a decimal number to octal
- **DELTA** This function will Test whether two values are equal
- **ERF** This function will return the error function
- **ERFC** This function will return the complementary error function
- **GESTEP** This function will test whether a number is greater than a threshold value
- **HEX2BIN** This function will convert a hexadecimal number to binary
- **HEX2DEC** This function will convert a hexadecimal number to decimal
- **HEX2OCT** This function will convert a hexadecimal number to octal
- **IMABS** This function will return the absolute value (modulus) of a complex number
- **IMAGINARY** This function will return the imaginary coefficient of a complex number
- **IMARGUMENT** This function will return the argument theta, an angle expressed in radians
- **IMCONJUGATE** This function will return the complex conjugate of a complex number
- **IMCOS** This function will return the cosine of a complex number
- **IMDIV** This function will return the quotient of two complex numbers
- **IMEXP** This function will return the exponential of a complex number
- **IMLN** This function will return the natural logarithm of a complex number

- **IMLOG10** This function will return the base-10 logarithm of a complex number
- **IMLOG2** This function will return the base-2 logarithm of a complex number
- **IMPOWER** This function will return a complex number raised to an integer power
- **IMPRODUCT** This function will return the product of from 2 to 29 complex numbers
- **IMREAL** This function will return the real coefficient of a complex number
- **IMSIN** This function will return the sine of a complex number
- **IMSQRT** This function will return the square root of a complex number
- **IMSUB** This function will return the difference between two complex numbers
- **MSUM** This function will return the sum of complex numbers
- **OCT2BIN** This function will convert an octal number to binary
- **OCT2DEC** This function will convert an octal number to decimal
- **OCT2HEX** This function will convert an octal number to hexadecimal

Financial Functions

- **ACCRINT** This function will return the accrued interest for a security that pays periodic interest
- **ACCRINTM** This function will return the accrued interest for a security that pays interest at maturity
- **AMORDEGRC** This function will return the depreciation for each accounting period by using a depreciation coefficient
- **AMORLINC** This function will return the depreciation for each accounting period
- **COUPDAYBS** This function will return the number of days from the beginning of the coupon period to the settlement date
- **COUPDAYS** This function will return the number of days in the coupon period that contains the settlement date
- **COUPDAYSNC** This function will return the number of days from the settlement date to the next coupon date
- **COUPNCD** This function will return the next coupon date after the settlement date
- **COUPNUM** This function will return the number of coupons payable between the settlement date and maturity date
- **COUPPCD** This function will return the previous coupon date before the settlement date
- **CUMIPMT** This function will return the cumulative interest paid between two periods
- **CUMPRINC** This function will return the cumulative principal paid on a loan between two periods
- **DB** This function will return the depreciation of an asset for a specified period by using the fixed-declining balance method
- **DDB** This function will return the depreciation of an asset for a specified period by using the double-declining

balance method or some other method that you specify

- **DISC** This function will return the discount rate for a security
- **DOLLARDE** This function will convert a dollar price, expressed as a fraction, into a dollar price, expressed as a decimal number
- **DOLLARFR** This function will convert a dollar price, expressed as a decimal number, into a dollar price, expressed as a fraction
- **DURATION** This function will return the annual duration of a security with periodic interest payments
- **EFFECT** This function will return the effective annual interest rate
- **FV** This function will return the future value of an investment
- **FVSCHEDULE** This function will return the future value of an initial principal after applying a series of compound interest rates
- **INTRATE** This function will return the interest rate for a fully invested security
- **IPMT** This function will return the interest payment for an investment for a given period
- **IRR** This function will return the internal rate of return for a series of cash flows
- **ISPMT** This function will calculate the interest paid during a specific period of an investment
- **MDURATION** This function will return the Macauley modified duration for a security with an assumed par value of $100
- **MIRR** This function will return the internal rate of return where positive and negative cash flows are financed at different rates
- **NOMINAL** This function will return the annual nominal interest rate
- **NPER** This function will return the number of periods for an investment
- **NPV** This function will return the net present value of an investment based on a series of periodic cash flows and a discount rate
- **ODDFPRICE** This function will return the price per $100 face value of a security with an odd first period
- **ODDFYIELD** This function will return the yield of a security with an odd first period
- **ODDLPRICE** This function will return the price per $100 face value of a security with an odd last period
- **ODDLYIELD** This function will return the yield of a security with an odd last period
- **PMT** This function will return the periodic payment for an annuity
- **PPMT** This function will return the payment on the principal for an investment for a given period
- **PRICE** This function will return the price per $100 face value of a security that pays periodic interest
- **PRICEDISC** This function will return the price per $100 face value of a discounted security
- **PRICEMAT** This function will return the price per $100 face value of a security that pays interest at maturity
- **PV** This function will return the present value of an investment

- **RATE** This function will return the interest rate per period of an annuity
- **RECEIVED** This function will return the amount received at maturity for a fully invested security
- **SLN** This function will return the straight-line depreciation of an asset for one period
- **SYD** This function will return the sum-of-years' digits depreciation of an asset for a specified period
- **TBILLEQ** This function will return the bond-equivalent yield for a Treasury bill
- **TBILLPRICE** This function will return the price per $100 face value for a Treasury bill
- **TBILLYIELD** This function will return the yield for a Treasury bill
- **VDB** This function will return the depreciation of an asset for a specified or partial period by using a declining balance method
- **XIRR** This function will return the internal rate of return for a schedule of cash flows that is not necessarily periodic
- **XNPV** This function will return the net present value for a schedule of cash flows that is not necessarily periodic
- **YIELD** This function will Return the yield on a security that pays periodic interest
- **YIELDDISC** This function will return the annual yield for a discounted security; for example, a Treasury bill
- **YIELDMAT** This function will return the annual yield of a security that pays interest at maturity

Information Functions

- **CELL** This function will return information about the formatting, location, or contents of a cell
- **ERROR.TYPE** This function will return a number corresponding to an error type
- **INFO** This function will return information about the current operating environment
- **ISBLANK** This function will return TRUE if the value is blank
- **ISERR** This function will return TRUE if the value is any error value except #N/A
- **ISERROR** This function will return TRUE if the value is any error value
- **ISEVEN** This function will return TRUE if the number is even
- **ISLOGICAL** This function will return TRUE if the value is a logical value
- **ISNA** This function will return TRUE if the value is the #N/A error value
- **ISNON T** This function will return TRUE if the value is not text
- **ISNUMBER** This function will return TRUE if the value is a number
- **ISODD** This function will return TRUE if the number is odd
- **ISREF** This function will return TRUE if the value is a reference
- **ISTEXT** This function will return TRUE if the value is text
- **N** This function will return a value converted to a number
- **NA** This function will return the error value #N/A

- **TYPE** This function will return a number indicating the data type of a value

Logical Functions

- **AND** This function will return TRUE if all of its arguments are TRUE
- **FALSE** This function will return the logical value FALSE
- **IF** This function will specify a logical test to perform
- **NOT** This function will reverse the logic of its argument
- **OR** This function will return TRUE if any argument is TRUE
- **TRUE** This function will return the logical value TRUE

Lookup and Reference Functions

- **ADDRESS** This function will return a reference as text to a single cell in a worksheet
- **AREAS** This function will return the number of areas in a reference
- **CHOOSE** This function will choose a value from a list of values
- **COLUMN** This function will return the column number of a reference
- **COLUMNS** This function will return the number of columns in a reference
- **GETPIVOTDATA** This function will return data stored in a PivotTable
- **HLOOKUP** This function will look in the top row of an array and returns the value of the indicated cell
- **HYPERLINK** This function will create a shortcut or jump that opens a document stored on a network server, an intranet, or the Internet
- **INDEX** This function will use an index to choose a value from a reference or array
- **INDIRECT** This function will return a reference indicated by a text value
- **LOOKUP** This function will look up values in a vector or array
- **MATCH** This function will look up values in a reference or array
- **OFFSET** This function will return a reference offset from a given reference
- **ROW** This function will return the row number of a reference
- **ROWS** This function will return the number of rows in a reference
- **RTD** This function will retrieve real-time data from a program that supports COM automation
- **TRANSPOSE** This function will return the transpose of an array
- **VLOOKUP** This function will look in the first column of an array and moves across the row to return the value of a cell

Math and Trigonometry Functions

- **ABS** This function will return the absolute value of a number

- **ACOS** This function will return the arccosine of a number
- **ACOSH** This function will return the inverse hyperbolic cosine of a number
- **ASIN** This function will return the arcsine of a number
- **ASINH** This function will return the inverse hyperbolic sine of a number
- **ATAN** This function will return the arctangent of a number
- **ATAN2** This function will return the arctangent from x- and y-coordinates
- **ATANH** This function will return the inverse hyperbolic tangent of a number
- **CEILING** This function will round a number to the nearest integer or to the nearest multiple of significance
- **COMBIN** This function will return the number of combinations for a given number of objects
- **COS** This function will return the cosine of a number
- **COSH** This function will return the hyperbolic cosine of a number
- **DEGREES** This function will convert radians to degrees
- **EVEN** This function will round a number up to the nearest even integer
- **EXP** This function will return e raised to the power of a given number
- **FACT** This function will return the factorial of a number
- **FACTDOUBLE** This function will return the double factorial of a number
- **FLOOR** This function will round a number down, toward zero
- **GCD** This function will return the greatest common divisor
- **INT** This function will round a number down to the nearest integer
- **LCM** This function will return the least common multiple
- **LN** This function will return the natural logarithm of a number
- **LOG** This function will return the logarithm of a number to a specified base
- **LOG10** This function will return the base-10 logarithm of a number
- **MDETERM** This function will return the matrix determinant of an array
- **MINVERSE** This function will return the matrix inverse of an array
- **MMULT** This function will return the matrix product of two arrays
- **MOD** This function will return the remainder from division
- **MROUND** This function will return a number rounded to the desired multiple
- **MULTINOMIAL** This function will return the multinomial of a set of numbers
- **ODD** This function will round a number up to the nearest odd integer
- **PI** This function will return the value of pi
- **POWER** This function will return the result of a number raised to a power
- **PRODUCT** This function will multiply its arguments
- **QUOTIENT** This function will return the integer portion of a division

- **RADIANS** This function will convert degrees to radians
- **RAND** This function will return a random number between 0 and 1
- **RANDBETWEEN** This function will return a random number between the numbers you specify
- **ROMAN** This function will convert an arabic numeral to roman, as text
- **ROUND** This function will round a number to a specified number of digits
- **ROUNDDOWN** This function will round a number down, toward zero
- **ROUNDUP** This function will round a number up, away from zero
- **SERIESSUM** This function will return the sum of a power series based on the formula
- **SIGN** This function will return the sign of a number
- **SIN** This function will return the sine of the given angle
- **SINH** This function will return the hyperbolic sine of a number
- **SQRT** This function will return a positive square root
- **SQRTPI** This function will return the square root of (number * pi)
- **SUBTOTAL** This function will return a subtotal in a list or database
- **SUM** This function will add its arguments
- **SUMIF** Adds the cells specified by a given criteria
- **SUMPRODUCT** This function will return the sum of the products of corresponding array components
- **SUMSQ** This function will return the sum of the squares of the arguments
- **SUMX2MY2** Returns the sum of the difference of squares of corresponding values in two arrays
- **SUMX2PY2** This function will return the sum of the sum of squares of corresponding values in two arrays
- **SUMXMY2** This function will return the sum of squares of differences of corresponding values in two arrays
- **TAN** This function will return the tangent of a number
- **TANH** This function will return the hyperbolic tangent of a number
- **TRUNC** This function will truncate a number to an integer

Statistical Functions

- **AVEDEV** This function will return the average of the absolute deviations of data points from their mean
- **AVERAGE** This function will return the average of its arguments
- **AVERAGEA** This function will return the average of its arguments, including numbers, text, and logical values
- **BETADIST** This function will return the beta cumulative distribution function
- **BETAINV** This function will return the inverse of the cumulative distribution function for a specified beta distribution

- **BINOMDIST** This function will return the individual term binomial distribution probability
- **CHIDIST** This function will return the one-tailed probability of the chi-squared distribution
- **CHIINV** This function will return the inverse of the one-tailed probability of the chi-squared distribution
- **CHITEST** This function will return the test for independence
- **CONFIDENCE** This function will return the confidence interval for a population mean
- **CORREL** This function will return the correlation coefficient between two data sets
- **COUNT** This function will count how many numbers are in the list of arguments
- **COUNTA** This function will count how many values are in the list of arguments
- **COUNTBLANK** This function will count the number of blank cells within a range
- **COUNTIF** This function will count the number of nonblank cells within a range that meet the given criteria
- **COVAR** This function will return covariance, the average of the products of paired deviations
- **CRITBINOM** This function will return the smallest value for which the cumulative binomial distribution is less than or equal to a criterion value
- **DEVSQ** This function will return the sum of squares of deviations
- **EXPONDIST** This function will return the exponential distribution
- **FDIST** This function will return the F probability distribution
- **FINV** This function will return the inverse of the F probability distribution
- **FISHER** This function will return the Fisher transformation
- **FISHERINV** This function will return the inverse of the Fisher transformation
- **FORECAST** This function will return a value along a linear trend
- **FREQUENCY** This function will return a frequency distribution as a vertical array
- **FTEST** This function will return the result of an F-test
- **GAMMADIST** This function will return the gamma distribution
- **GAMMAINV** This function will return the inverse of the gamma cumulative distribution
- **GAMMALN** This function will return the natural logarithm of the gamma function, $\Gamma(x)$
- **GEOMEAN** This function will return the geometric mean
- **GROWTH** This function will return values along an exponential trend
- **HARMEAN** This function will return the harmonic mean
- **HYPGEOMDIST** This function will return the hypergeometric distribution
- **INTERCEPT** This function will return the intercept of the linear regression line
- **KURT** This function will return the kurtosis of a data set
- **LARGE** This function will return the k-th largest value in a data set

- **LINEST** This function will return the parameters of a linear trend
- **LOGEST** This function will return the parameters of an exponential trend
- **LOGINV** This function will return the inverse of the lognormal distribution
- **LOGNORMDIST** This function will return the cumulative lognormal distribution
- **MAX** This function will return the maximum value in a list of arguments
- **MAXA** This function will return the maximum value in a list of arguments, including numbers, text, and logical values
- **MEDIAN** This function will return the median of the given numbers
- **MIN** This function will return the minimum value in a list of arguments
- **MINA** This function will return the smallest value in a list of arguments, including numbers, text, and logical values
- **MODE** This function will return the most common value in a data set
- **NEGBINOMDIST** return the negative binomial distribution
- **NORMDIST** This function will return the normal cumulative distribution
- **NORMINV** This function will return the inverse of the normal cumulative distribution
- **NORMSDIST** This function will return the standard normal cumulative distribution
- **NORMSINV** This function will return the inverse of the standard normal cumulative distribution
- **PEARSON** This function will return the Pearson product moment correlation coefficient
- **PERCENTILE** This function will return the k-th percentile of values in a range
- **PERCENTRANK** This function will return the percentage rank of a value in a data set
- **PERMUT** This function will return the number of permutations for a given number of objects
- **POISSON** This function will return the Poisson distribution
- **PROB** This function will return the probability that values in a range are between two limits
- **QUARTILE** This function will return the quartile of a data set
- **RANK** This function will return the rank of a number in a list of numbers
- **RSQ** This function will return the square of the Pearson product moment correlation coefficient
- **SKEW** This function will return the skewness of a distribution
- **SLOPE** This function will return the slope of the linear regression line
- **SMALL** This function will return the k-th smallest value in a data set
- **STANDARDIZE** This function will return a normalized value
- **STDEV** This function will estimate standard deviation based on a sample
- **STDEVA** This function will estimate standard deviation based on a sample, including numbers, text, and logical values

- **STDEVP** This function will calculate standard deviation based on the entire population
- **STDEVPA** This function will calculate standard deviation based on the entire population, including numbers, text, and logical values
- **STEYX** This function will return the standard error of the predicted y-value for each x in the regression
- **TDIST** This function will return the Student's t-distribution
- **TINV** This function will return the inverse of the Student's t-distribution
- **TREND** This function will return values along a linear trend
- **TRIMMEAN** This function will return the mean of the interior of a data set
- **TTEST** This function will return the probability associated with a Student's t-test
- **VAR** This function will estimate variance based on a sample
- **VARA** This function will estimate variance based on a sample, including numbers, text, and logical values
- **VARP** This function will calculate variance based on the entire population
- **VARPA** This function will calculate variance based on the entire population, including numbers, text, and logical values
- **WEIBULL** This function will return the Weibull distribution
- **ZTEST** This function will return the one-tailed probability-value of a z-test

Text Functions

- **ASC** This function will change full-width (double-byte) English letters or katakana within a character string to half-width (single-byte) characters
- **BAHTTEXT** This function will converts a number to text, using the ß (baht) currency format
- **CHAR** This function will return the character specified by the code number
- **CLEAN** This function will remove all nonprintable characters from text
- **CODE** This function will return a numeric code for the first character in a text string
- **CONCATENATE** This function will join several text items into one text item
- **DOLLAR** This function will convert a number to text, using the $ (dollar) currency format
- **EXACT** This function will check to see if two text values are identical
- **FIND, FINDB** This function will find one text value within another (case-sensitive)
- **FIXED** This function will format a number as text with a fixed number of decimals
- **JIS** This function will change half-width (single-byte) English letters or katakana within a character string to full-width (double-byte) characters
- **LEFT, LEFTB** This function will return the leftmost characters from a text value
- **LEN, LENB** This function will return the number of characters in a text string
- **LOWER** This function will convert text to lowercase

- **MID, MIDB** This function will return a specific number of characters from a text string starting at the position you specify
- **PHONETIC** This function will extract the phonetic (furigana) characters from a text string
- **PROPER** This function will capitalize the first letter in each word of a text value
- **REPLACE, REPLACEB** This function will replace characters within text
- **REPT** This function will repeat text a given number of times
- **RIGHT, RIGHTB** This function will return the rightmost characters from a text value
- **SEARCH, SEARCHB** This function will find one text value within another (not case-sensitive)
- **SUBSTITUTE** This function will substitute new text for old text in a text string
- **T** This function will convert its arguments to text
- **TEXT** This function will format a number and converts it to text
- **TRIM** This function will remove spaces from text
- **UPPER** This function will convert text to uppercase
- **VALUE** Converts a text argument to a number