

Excel functions (alphabetical)

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Click a letter to go to functions that start with it. Or press Ctrl+F to find a function by typing the first few letters or a descriptive word. To get detailed information about a function, click its name in the first column.

Important: The calculated results of formulas and some Excel worksheet functions may differ slightly between a Windows PC using x86 or x86-64 architecture and a Windows RT PC using ARM architecture. Learn more about the differences.

Function name	Type and description
ABS function	Math and trigonometry: Returns the absolute value of a number
ACCRINT function	Financial: Returns the accrued interest for a security that pays periodic interest
ACCRINTM function	Financial: Returns the accrued interest for a security that pays interest at maturity
ACOS function	Math and trigonometry: Returns the arccosine of a number
ACOSH function	Math and trigonometry: Returns the inverse hyperbolic cosine of a number
ACOT function	Math and trigonometry: Returns the arccotangent of a number
ACOTH function	Math and trigonometry: Returns the hyperbolic arccotangent of a number

Function name	Type and description
AGGREGATE function	Math and trigonometry: Returns an aggregate in a list or database
ADDRESS function	Lookup and reference: Returns a reference as text to a single cell in a worksheet
AMORDEGRC function	Financial: Returns the depreciation for each accounting period by using a depreciation coefficient
AMORLINC function	Financial: Returns the depreciation for each accounting period
AND function	Logical: Returns TRUE if all of its arguments are TRUE
ARABIC function 2013	Math and trigonometry: Converts a Roman number to Arabic, as a number
AREAS function	Lookup and reference: Returns the number of areas in a reference
ARRAYTOTEXT function Microsoft 365	Text: Returns an array of text values from any specified range
ASC function	Text: Changes full-width (double-byte) English letters or katakana within a character string to half-width (single-byte) characters
ASIN function	Math and trigonometry: Returns the arcsine of a number

Function name	Type and description
ASINH function	Math and trigonometry: Returns the inverse hyperbolic sine of a number
ATAN function	Math and trigonometry: Returns the arctangent of a number
ATAN2 function	Math and trigonometry: Returns the arctangent from x- and y-coordinates
ATANH function	Math and trigonometry: Returns the inverse hyperbolic tangent of a number
AVEDEV function	Statistical: Returns the average of the absolute deviations of data points from their mean
AVERAGE function	Statistical: Returns the average of its arguments
AVERAGEA function	Statistical: Returns the average of its arguments, including numbers, text, and logical values
AVERAGEIF function	Statistical: Returns the average (arithmetic mean) of all the cells in a range that meet a given criteria
AVERAGEIFS function	Statistical: Returns the average (arithmetic mean) of all cells that meet multiple criteria.
BAHTTEXT function	Text: Converts a number to text, using the ₧ (baht) currency format
BASE function	Math and trigonometry: Converts a number into a text representation with the given radix (base)

Function name	Type and description
BESSELI function	Engineering: Returns the modified Bessel function $I_n(x)$
BESSELJ function	Engineering: Returns the Bessel function $J_n(x)$
BESSELK function	Engineering: Returns the modified Bessel function $K_n(x)$
BESSELY function	Engineering: Returns the Bessel function $Y_n(x)$
BETADIST function	Compatibility: Returns the beta cumulative distribution function In Excel 2007, this is a Statistical function.
BETA.DIST function 2010	Statistical: Returns the beta cumulative distribution function
BETAINV function	Compatibility: Returns the inverse of the cumulative distribution function for a specified beta distribution In Excel 2007, this is a Statistical function.
BETA.INV function 2010	Statistical: Returns the inverse of the cumulative distribution function for a specified beta distribution
BIN2DEC function	Engineering: Converts a binary number to decimal
BIN2HEX function	Engineering: Converts a binary number to hexadecimal
BIN2OCT function	Engineering: Converts a binary number to octal

Function name	Type and description
BINOMDIST function	Compatibility: Returns the individual term binomial distribution probability In Excel 2007, this is a Statistical function.
BINOM.DIST function 2010	Statistical: Returns the individual term binomial distribution probability
BINOM.DIST.RANGE function 2013	Statistical: Returns the probability of a trial result using a binomial distribution
BINOM.INV function 2010	Statistical: Returns the smallest value for which the cumulative binomial distribution is less than or equal to a criterion value
BITAND function 2013	Engineering: Returns a 'Bitwise And' of two numbers
BITLSHIFT function 2013	Engineering: Returns a value number shifted left by shift_amount bits
BITOR function 2013	Engineering: Returns a bitwise OR of 2 numbers
BITRSHIFT function 2013	Engineering: Returns a value number shifted right by shift_amount bits
BITXOR function 2013	Engineering: Returns a bitwise 'Exclusive Or' of two numbers
BYCOL	Logical: Applies a LAMBDA to each column and returns an array of the results

Function name	Type and description
BYROW	Logical: Applies a LAMBDA to each row and returns an array of the results
Microsoft 365	
CALL function	Add-in and Automation: Calls a procedure in a dynamic link library or code resource
CEILING function	Compatibility: Rounds a number to the nearest integer or to the nearest multiple of significance
CEILING.MATH function	Math and trigonometry: Rounds a number up, to the nearest integer or to the nearest multiple of significance
2013	
CEILING.PRECISE function	Math and trigonometry: Rounds a number the nearest integer or to the nearest multiple of significance. Regardless of the sign of the number, the number is rounded up.
CELL function	Information: Returns information about the formatting, location, or contents of a cell
This function is not available in Excel for the web.	
CHAR function	Text: Returns the character specified by the code number
CHIDIST function	Compatibility: Returns the one-tailed probability of the chi-squared distribution
Note: In Excel 2007, this is a Statistical function.	

Function name	Type and description
CHIINV function	Compatibility: Returns the inverse of the one-tailed probability of the chi-squared distribution
	Note: In Excel 2007, this is a Statistical function.
CHITEST function	Compatibility: Returns the test for independence
	Note: In Excel 2007, this is a Statistical function.
CHISQ.DIST function 2010	Statistical: Returns the cumulative beta probability density function
CHISQ.DIST.RT function 2010	Statistical: Returns the one-tailed probability of the chi-squared distribution
CHISQ.INV function 2010	Statistical: Returns the cumulative beta probability density function
CHISQ.INV.RT function 2010	Statistical: Returns the inverse of the one-tailed probability of the chi-squared distribution
CHISQ.TEST function 2010	Statistical: Returns the test for independence
CHOOSE function	Lookup and reference: Chooses a value from a list of values
CHOOSECOLS Microsoft 365	Lookup and reference: Returns the specified columns from an array

Function name	Type and description
CHOSEROWS	Lookup and reference: Returns the specified rows from an array
Microsoft 365	
CLEAN function	Text: Removes all nonprintable characters from text
CODE function	Text: Returns a numeric code for the first character in a text string
COLUMN function	Lookup and reference: Returns the column number of a reference
COLUMNS function	Lookup and reference: Returns the number of columns in a reference
COMBIN function	Math and trigonometry: Returns the number of combinations for a given number of objects
COMBINA function	Math and trigonometry: Returns the number of combinations with repetitions for a given number of items
2013	
COMPLEX function	Engineering: Converts real and imaginary coefficients into a complex number
CONCAT function	Text: Combines the text from multiple ranges and/or strings, but it doesn't provide the delimiter or IgnoreEmpty arguments.
2019	
CONCATENATE function	Text: Joins several text items into one text item

Function name	Type and description
CONFIDENCE function	Compatibility: Returns the confidence interval for a population mean
	In Excel 2007, this is a Statistical function.
CONFIDENCE.NORM function 2010	Statistical: Returns the confidence interval for a population mean
CONFIDENCE.T function 2010	Statistical: Returns the confidence interval for a population mean, using a Student's t distribution
CONVERT function	Engineering: Converts a number from one measurement system to another
CORREL function	Statistical: Returns the correlation coefficient between two data sets
COS function	Math and trigonometry: Returns the cosine of a number
COSH function	Math and trigonometry: Returns the hyperbolic cosine of a number
COT function 2013	Math and trigonometry: Returns the hyperbolic cosine of a number
COTH function 2013	Math and trigonometry: Returns the cotangent of an angle
COUNT function	Statistical: Counts how many numbers are in the list of arguments

Function name	Type and description
COUNTA function	Statistical: Counts how many values are in the list of arguments
COUNTBLANK function	Statistical: Counts the number of blank cells within a range
COUNTIF function	Statistical: Counts the number of cells within a range that meet the given criteria
COUNTIFS function	Statistical: Counts the number of cells within a range that meet multiple criteria
COUPDAYBS function	Financial: Returns the number of days from the beginning of the coupon period to the settlement date
COUPDAYS function	Financial: Returns the number of days in the coupon period that contains the settlement date
COUPDAYSNC function	Financial: Returns the number of days from the settlement date to the next coupon date
COUPNCD function	Financial: Returns the next coupon date after the settlement date
COUPNUM function	Financial: Returns the number of coupons payable between the settlement date and maturity date
COUPPCD function	Financial: Returns the previous coupon date before the settlement date

Function name	Type and description
COVAR function	<p>Compatibility: Returns covariance, the average of the products of paired deviations</p> <p>In Excel 2007, this is a Statistical function.</p>
COVARIANCE.P function 2010	<p>Statistical: Returns covariance, the average of the products of paired deviations</p>
COVARIANCE.S function 2010	<p>Statistical: Returns the sample covariance, the average of the products deviations for each data point pair in two data sets</p>
CRITBINOM function	<p>Compatibility: Returns the smallest value for which the cumulative binomial distribution is less than or equal to a criterion value</p> <p>In Excel 2007, this is a Statistical function.</p>
CSC function 2013	<p>Math and trigonometry: Returns the cosecant of an angle</p>
CSCH function 2013	<p>Math and trigonometry: Returns the hyperbolic cosecant of an angle</p>
CUBEKPIMEMBER function	<p>Cube: Returns a key performance indicator (KPI) name, property, and measure, and displays the name and property in the cell. A KPI is a quantifiable measurement, such as monthly gross profit or quarterly employee turnover, used to monitor an organization's performance.</p>
CUBEMEMBER function	<p>Cube: Returns a member or tuple in a cube hierarchy. Use to validate that the member or tuple exists in the cube.</p>

Function name	Type and description
CUBEMEMBERPROPERTY function	Cube: Returns the value of a member property in the cube. Use to validate that a member name exists within the cube and to return the specified property for this member.
CUBERANKEDMEMBER function	Cube: Returns the nth, or ranked, member in a set. Use to return one or more elements in a set, such as the top sales performer or top 10 students.
CUBESET function	Cube: Defines a calculated set of members or tuples by sending a set expression to the cube on the server, which creates the set, and then returns that set to Microsoft Office Excel.
CUBESETCOUNT function	Cube: Returns the number of items in a set.
CUBEVALUE function	Cube: Returns an aggregated value from a cube.
CUMIPMT function	Financial: Returns the cumulative interest paid between two periods
CUMPRINC function	Financial: Returns the cumulative principal paid on a loan between two periods
DATE function	Date and time: Returns the serial number of a particular date
DATEDIF function	Date and time: Calculates the number of days, months, or years between two dates. This function is useful in formulas where you need to calculate an age.

Function name	Type and description
DATEVALUE function	Date and time: Converts a date in the form of text to a serial number
DAVERAGE function	Database: Returns the average of selected database entries
DAY function	Date and time: Converts a serial number to a day of the month
DAYS function 2013	Date and time: Returns the number of days between two dates
DAYS360 function	Date and time: Calculates the number of days between two dates based on a 360-day year
DB function	Financial: Returns the depreciation of an asset for a specified period by using the fixed-declining balance method
DBCS function 2013	Text: Changes half-width (single-byte) English letters or katakana within a character string to full-width (double-byte) characters
DCOUNT function	Database: Counts the cells that contain numbers in a database
DCOUNTA function	Database: Counts nonblank cells in a database
DDB function	Financial: Returns the depreciation of an asset for a specified period by using the double-declining balance method or some other method that you specify

Function name	Type and description
DEC2BIN function	Engineering: Converts a decimal number to binary
DEC2HEX function	Engineering: Converts a decimal number to hexadecimal
DEC2OCT function	Engineering: Converts a decimal number to octal
DECIMAL function 2013	Math and trigonometry: Converts a text representation of a number in a given base into a decimal number
DEGREES function	Math and trigonometry: Converts radians to degrees
DELTA function	Engineering: Tests whether two values are equal
DEVSQ function	Statistical: Returns the sum of squares of deviations
DGET function	Database: Extracts from a database a single record that matches the specified criteria
DISC function	Financial: Returns the discount rate for a security
DMAX function	Database: Returns the maximum value from selected database entries
DMIN function	Database: Returns the minimum value from selected database entries
DOLLAR function	Text: Converts a number to text, using the \$ (dollar) currency format

Function name	Type and description
DOLLARDE function	Financial: Converts a dollar price, expressed as a fraction, into a dollar price, expressed as a decimal number
DOLLARFR function	Financial: Converts a dollar price, expressed as a decimal number, into a dollar price, expressed as a fraction
DPRODUCT function	Database: Multiplies the values in a particular field of records that match the criteria in a database
DROP	Lookup and reference: Excludes a specified number of rows or columns from the start or end of an array
DSTDEV function	Database: Estimates the standard deviation based on a sample of selected database entries
DSTDEVP function	Database: Calculates the standard deviation based on the entire population of selected database entries
DSUM function	Database: Adds the numbers in the field column of records in the database that match the criteria
DURATION function	Financial: Returns the annual duration of a security with periodic interest payments
DVAR function	Database: Estimates variance based on a sample from selected database entries
DVARP function	Database: Calculates variance based on the entire population of selected database entries

Function name	Type and description
EDATE function	Date and time: Returns the serial number of the date that is the indicated number of months before or after the start date
EFFECT function	Financial: Returns the effective annual interest rate
ENCODEURL function <div style="border: 1px solid black; padding: 2px;">2013</div>	Web: Returns a URL-encoded string
	This function is not available in Excel for the web.
EOMONTH function	Date and time: Returns the serial number of the last day of the month before or after a specified number of months
ERF function	Engineering: Returns the error function
ERF.PRECISE function <div style="border: 1px solid black; padding: 2px;">2010</div>	Engineering: Returns the error function
ERFC function	Engineering: Returns the complementary error function
ERFC.PRECISE function <div style="border: 1px solid black; padding: 2px;">2010</div>	Engineering: Returns the complementary ERF function integrated between x and infinity
ERROR.TYPE function	Information: Returns a number corresponding to an error type
EUROCONVERT function	Add-in and Automation: Converts a number to euros, converts a number from euros to a euro member currency, or converts a number from one euro member currency to another by using the euro as an intermediary (triangulation).

Function name	Type and description
EVEN function	Math and trigonometry: Rounds a number up to the nearest even integer
EXACT function	Text: Checks to see if two text values are identical
EXP function	Math and trigonometry: Returns e raised to the power of a given number
EXPAND	Lookup and reference: Expands or pads an array to specified row and column dimensions
Microsoft 365	
EXPON.DIST function	Statistical: Returns the exponential distribution
2010	
EXPONDIST function	Compatibility: Returns the exponential distribution In Excel 2007, this is a Statistical function.
FACT function	Math and trigonometry: Returns the factorial of a number
FACTDOUBLE function	Math and trigonometry: Returns the double factorial of a number
FALSE function	Logical: Returns the logical value FALSE
F.DIST function	Statistical: Returns the F probability distribution
2010	
FDIST function	Compatibility: Returns the F probability distribution In Excel 2007, this is a Statistical function.

Function name	Type and description
F.DIST.RT function 2010	Statistical: Returns the F probability distribution
FILTER function Microsoft 365	Lookup and reference: Filters a range of data based on criteria you define
FILTERXML function 2013	Web: Returns specific data from the XML content by using the specified XPath This function is not available in Excel for the web.
FIND, FINDB functions	Text: Finds one text value within another (case-sensitive)
F.INV function 2010	Statistical: Returns the inverse of the F probability distribution
F.INV.RT function 2010	Statistical: Returns the inverse of the F probability distribution
FINV function	Compatibility: Returns the inverse of the F probability distribution In Excel 2007 this is a Statistical function.
FISHER function	Statistical: Returns the Fisher transformation
FISHERINV function	Statistical: Returns the inverse of the Fisher transformation
FIXED function	Text: Formats a number as text with a fixed number of decimals

Function name	Type and description
FLOOR function	<p>Compatibility: Rounds a number down, toward zero</p> <p>In Excel 2007 and Excel 2010, this is a Math and trigonometry function.</p>
FLOOR.MATH function 2013	<p>Math and trigonometry: Rounds a number down, to the nearest integer or to the nearest multiple of significance</p>
FLOOR.PRECISE function	<p>Math and trigonometry: Rounds a number the nearest integer or to the nearest multiple of significance. Regardless of the sign of the number, the number is rounded up.</p>
FORECAST function	<p>Statistical: Returns a value along a linear trend</p> <p>In Excel 2016, this function is replaced with FORECAST.LINEAR as part of the new Forecasting functions, but it's still available for compatibility with earlier versions.</p>
FORECAST.ETS function 2016	<p>Statistical: Returns a future value based on existing (historical) values by using the AAA version of the Exponential Smoothing (ETS) algorithm</p>
FORECAST.ETS.CONFINT function 2016	<p>Statistical: Returns a confidence interval for the forecast value at the specified target date</p>
FORECAST.ETS.SEASONALITY function 2016	<p>Statistical: Returns the length of the repetitive pattern Excel detects for the specified time series</p>

Function name	Type and description
FORECAST.ETS.STAT function 2016	Statistical: Returns a statistical value as a result of time series forecasting
FORECAST.LINEAR function 2016	Statistical: Returns a future value based on existing values
FORMULATEXT function 2013	Lookup and reference: Returns the formula at the given reference as text
FREQUENCY function	Statistical: Returns a frequency distribution as a vertical array
F.TEST function 2010	Statistical: Returns the result of an F-test
FTEST function	Compatibility: Returns the result of an F-test In Excel 2007, this is a Statistical function.
FV function	Financial: Returns the future value of an investment
FVSCHEDULE function	Financial: Returns the future value of an initial principal after applying a series of compound interest rates
GAMMA function 2013	Statistical: Returns the Gamma function value
GAMMA.DIST function 2010	Statistical: Returns the gamma distribution

Function name	Type and description
GAMMADIST function	Compatibility: Returns the gamma distribution In Excel 2007, this is a Statistical function.
GAMMA.INV function 2010	Statistical: Returns the inverse of the gamma cumulative distribution
GAMMAINV function	Compatibility: Returns the inverse of the gamma cumulative distribution In Excel 2007, this is a Statistical function.
GAMMALN function	Statistical: Returns the natural logarithm of the gamma function, $\Gamma(x)$
GAMMALN.PRECISE function 2010	Statistical: Returns the natural logarithm of the gamma function, $\Gamma(x)$
GAUSS function 2013	Statistical: Returns 0.5 less than the standard normal cumulative distribution
GCD function	Math and trigonometry: Returns the greatest common divisor
GEOMEAN function	Statistical: Returns the geometric mean
GESTEP function	Engineering: Tests whether a number is greater than a threshold value
GETPIVOTDATA function	Lookup and reference: Returns data stored in a PivotTable report

Function name	Type and description
GROWTH function	Statistical: Returns values along an exponential trend
HARMEAN function	Statistical: Returns the harmonic mean
HEX2BIN function	Engineering: Converts a hexadecimal number to binary
HEX2DEC function	Engineering: Converts a hexadecimal number to decimal
HEX2OCT function	Engineering: Converts a hexadecimal number to octal
HLOOKUP function	Lookup and reference: Looks in the top row of an array and returns the value of the indicated cell
HOUR function	Date and time: Converts a serial number to an hour
HSTACK	Lookup and reference: Appends arrays horizontally and in sequence to return a larger array
HYPERLINK function	Lookup and reference: Creates a shortcut or jump that opens a document stored on a network server, an intranet, or the Internet
HYPGEOM.DIST function	Statistical: Returns the hypergeometric distribution

Microsoft 365

Function name	Type and description
HYPGEOMDIST function	Compatibility: Returns the hypergeometric distribution
	In Excel 2007, this is a Statistical function.
IF function	Logical: Specifies a logical test to perform
IFERROR function	Logical: Returns a value you specify if a formula evaluates to an error; otherwise, returns the result of the formula
IFNA function 2013	Logical: Returns the value you specify if the expression resolves to #N/A, otherwise returns the result of the expression
IFS function 2019	Logical: Checks whether one or more conditions are met and returns a value that corresponds to the first TRUE condition.
IMABS function	Engineering: Returns the absolute value (modulus) of a complex number
IMAGE function	Lookup and reference: Returns an image from a given source
IMAGINARY function	Engineering: Returns the imaginary coefficient of a complex number
IMARGUMENT function	Engineering: Returns the argument theta, an angle expressed in radians
IMCONJUGATE function	Engineering: Returns the complex conjugate of a complex number

Function name	Type and description
IMCOS function	Engineering: Returns the cosine of a complex number
IMCOSH function 2013	Engineering: Returns the hyperbolic cosine of a complex number
IMCOT function 2013	Engineering: Returns the cotangent of a complex number
IMCSC function 2013	Engineering: Returns the cosecant of a complex number
IMCSCH function 2013	Engineering: Returns the hyperbolic cosecant of a complex number
IMDIV function	Engineering: Returns the quotient of two complex numbers
IMEXP function	Engineering: Returns the exponential of a complex number
IMLN function	Engineering: Returns the natural logarithm of a complex number
IMLOG10 function	Engineering: Returns the base-10 logarithm of a complex number
IMLOG2 function	Engineering: Returns the base-2 logarithm of a complex number
IMPOWER function	Engineering: Returns a complex number raised to an integer power

Function name	Type and description
IMPRODUCT function	Engineering: Returns the product of complex numbers
IMREAL function	Engineering: Returns the real coefficient of a complex number
IMSEC function 2013	Engineering: Returns the secant of a complex number
IMSECH function 2013	Engineering: Returns the hyperbolic secant of a complex number
IMSIN function	Engineering: Returns the sine of a complex number
IMSINH function 2013	Engineering: Returns the hyperbolic sine of a complex number
IMSQRT function	Engineering: Returns the square root of a complex number
IMSUB function	Engineering: Returns the difference between two complex numbers
IMSUM function	Engineering: Returns the sum of complex numbers
IMTAN function 2013	Engineering: Returns the tangent of a complex number
INDEX function	Lookup and reference: Uses an index to choose a value from a reference or array

Function name	Type and description
INDIRECT function	Lookup and reference: Returns a reference indicated by a text value
INFO function	Information: Returns information about the current operating environment This function is not available in Excel for the web.
INT function	Math and trigonometry: Rounds a number down to the nearest integer
INTERCEPT function	Statistical: Returns the intercept of the linear regression line
INTRATE function	Financial: Returns the interest rate for a fully invested security
IPMT function	Financial: Returns the interest payment for an investment for a given period
IRR function	Financial: Returns the internal rate of return for a series of cash flows
ISBLANK function	Information: Returns TRUE if the value is blank
ISERR function	Information: Returns TRUE if the value is any error value except #N/A
ISERROR function	Information: Returns TRUE if the value is any error value
ISEVEN function	Information: Returns TRUE if the number is even

Function name	Type and description
ISFORMULA function <small>2013</small>	Information: Returns TRUE if there is a reference to a cell that contains a formula
ISLOGICAL function	Information: Returns TRUE if the value is a logical value
ISNA function	Information: Returns TRUE if the value is the #N/A error value
ISNONTEXT function	Information: Returns TRUE if the value is not text
ISNUMBER function	Information: Returns TRUE if the value is a number
ISODD function	Information: Returns TRUE if the number is odd
ISOMITTED <small>Microsoft 365</small>	Information: Checks whether the value in a LAMBDA is missing and returns TRUE or FALSE
ISREF function	Information: Returns TRUE if the value is a reference
ISTEXT function	Information: Returns TRUE if the value is text
ISO.CEILING function <small>2013</small>	Math and trigonometry: Returns a number that is rounded up to the nearest integer or to the nearest multiple of significance
ISOWEEKNUM function <small>2013</small>	Date and time: Returns the number of the ISO week number of the year for a given date

Function name	Type and description
ISPMT function	Financial: Calculates the interest paid during a specific period of an investment
JIS function	Text: Changes half-width (single-byte) characters within a string to full-width (double-byte) characters
KURT function	Statistical: Returns the kurtosis of a data set
LAMBDA	Logical: Create custom, reusable functions and call them by a friendly name
LARGE function	Statistical: Returns the k-th largest value in a data set
LCM function	Math and trigonometry: Returns the least common multiple
LEFT, LEFTB functions	Text: Returns the leftmost characters from a text value
LEN, LENB functions	Text: Returns the number of characters in a text string
LET	Logical: Assigns names to calculation results
Microsoft 365	
LINEST function	Statistical: Returns the parameters of a linear trend
LN function	Math and trigonometry: Returns the natural logarithm of a number

Function name	Type and description
LOG function	Math and trigonometry: Returns the logarithm of a number to a specified base
LOG10 function	Math and trigonometry: Returns the base-10 logarithm of a number
LOGEST function	Statistical: Returns the parameters of an exponential trend
LOGINV function	Compatibility: Returns the inverse of the lognormal cumulative distribution
LOGNORM.DIST function 2010	Statistical: Returns the cumulative lognormal distribution
LOGNORMDIST function	Compatibility: Returns the cumulative lognormal distribution
LOGNORM.INV function 2010	Statistical: Returns the inverse of the lognormal cumulative distribution
LOOKUP function	Lookup and reference: Looks up values in a vector or array
LOWER function	Text: Converts text to lowercase
MAKEARRAY Microsoft 365	Logical: Returns a calculated array of a specified row and column size, by applying a LAMBDA

Function name	Type and description
MAP	Logical: Returns an array formed by mapping each value in the array(s) to a new value by applying a LAMBDA to create a new value
MATCH function	Lookup and reference: Looks up values in a reference or array
MAX function	Statistical: Returns the maximum value in a list of arguments
MAXA function	Statistical: Returns the maximum value in a list of arguments, including numbers, text, and logical values
MAXIFS function	Statistical: Returns the maximum value among cells specified by a given set of conditions or criteria
MDETERM function	Math and trigonometry: Returns the matrix determinant of an array
MDURATION function	Financial: Returns the Macauley modified duration for a security with an assumed par value of \$100
MEDIAN function	Statistical: Returns the median of the given numbers
MID, MIDB functions	Text: Returns a specific number of characters from a text string starting at the position you specify
MIN function	Statistical: Returns the minimum value in a list of arguments

Function name	Type and description
MINIFS function 2019	Statistical: Returns the minimum value among cells specified by a given set of conditions or criteria.
MINA function	Statistical: Returns the smallest value in a list of arguments, including numbers, text, and logical values
MINUTE function	Date and time: Converts a serial number to a minute
MINVERSE function	Math and trigonometry: Returns the matrix inverse of an array
MIRR function	Financial: Returns the internal rate of return where positive and negative cash flows are financed at different rates
MMULT function	Math and trigonometry: Returns the matrix product of two arrays
MOD function	Math and trigonometry: Returns the remainder from division
MODE function	Compatibility: Returns the most common value in a data set In Excel 2007, this is a Statistical function.
MODE.MULT function 2010	Statistical: Returns a vertical array of the most frequently occurring, or repetitive values in an array or range of data

Function name	Type and description
MODE.SNGL function 2010	Statistical: Returns the most common value in a data set
MONTH function	Date and time: Converts a serial number to a month
MROUND function	Math and trigonometry: Returns a number rounded to the desired multiple
MULTINOMIAL function	Math and trigonometry: Returns the multinomial of a set of numbers
MUNIT function 2013	Math and trigonometry: Returns the unit matrix or the specified dimension
N function	Information: Returns a value converted to a number
NA function	Information: Returns the error value #N/A
NEGBINOM.DIST function 2010	Statistical: Returns the negative binomial distribution
NEGBINOMDIST function	Compatibility: Returns the negative binomial distribution In Excel 2007, this is a Statistical function.
NETWORKDAYS function	Date and time: Returns the number of whole workdays between two dates

Function name	Type and description
NETWORKDAYS.INTL function 2010	Date and time: Returns the number of whole workdays between two dates using parameters to indicate which and how many days are weekend days
NOMINAL function	Financial: Returns the annual nominal interest rate
NORM.DIST function 2010	Statistical: Returns the normal cumulative distribution
NORMDIST function	Compatibility: Returns the normal cumulative distribution In Excel 2007, this is a Statistical function.
NORMINV function	Statistical: Returns the inverse of the normal cumulative distribution
NORM.INV function 2010	Compatibility: Returns the inverse of the normal cumulative distribution Note: In Excel 2007, this is a Statistical function.
NORM.S.DIST function 2010	Statistical: Returns the standard normal cumulative distribution
NORMSDIST function	Compatibility: Returns the standard normal cumulative distribution In Excel 2007, this is a Statistical function.
NORM.S.INV function 2010	Statistical: Returns the inverse of the standard normal cumulative distribution

Function name	Type and description
NORMSINV function	Compatibility: Returns the inverse of the standard normal cumulative distribution In Excel 2007, this is a Statistical function.
NOT function	Logical: Reverses the logic of its argument
NOW function	Date and time: Returns the serial number of the current date and time
NPER function	Financial: Returns the number of periods for an investment
NPV function	Financial: Returns the net present value of an investment based on a series of periodic cash flows and a discount rate
NUMBERVALUE function 2013	Text: Converts text to number in a locale-independent manner
OCT2BIN function	Engineering: Converts an octal number to binary
OCT2DEC function	Engineering: Converts an octal number to decimal
OCT2HEX function	Engineering: Converts an octal number to hexadecimal
ODD function	Math and trigonometry: Rounds a number up to the nearest odd integer
ODDFPRICE function	Financial: Returns the price per \$100 face value of a security with an odd first period

Function name	Type and description
ODDFYIELD function	Financial: Returns the yield of a security with an odd first period
ODDLPRICE function	Financial: Returns the price per \$100 face value of a security with an odd last period
ODDLYIELD function	Financial: Returns the yield of a security with an odd last period
OFFSET function	Lookup and reference: Returns a reference offset from a given reference
OR function	Logical: Returns TRUE if any argument is TRUE
PDURATION function 2013	Financial: Returns the number of periods required by an investment to reach a specified value
PEARSON function	Statistical: Returns the Pearson product moment correlation coefficient
PERCENTILE.EXC function 2010	Statistical: Returns the k-th percentile of values in a range, where k is in the range 0..1, exclusive
PERCENTILE.INC function 2010	Statistical: Returns the k-th percentile of values in a range
PERCENTILE function	Compatibility: Returns the k-th percentile of values in a range In Excel 2007, this is a Statistical function.

Function name	Type and description
PERCENTRANK.EXC function 2010	Statistical: Returns the rank of a value in a data set as a percentage (0..1, exclusive) of the data set
PERCENTRANK.INC function 2010	Statistical: Returns the percentage rank of a value in a data set
PERCENTRANK function	Compatibility: Returns the percentage rank of a value in a data set In Excel 2007, this is a Statistical function.
PERMUT function	Statistical: Returns the number of permutations for a given number of objects
PERMUTATIONA function 2013	Statistical: Returns the number of permutations for a given number of objects (with repetitions) that can be selected from the total objects
PHI function 2013	Statistical: Returns the value of the density function for a standard normal distribution
PHONETIC function	Text: Extracts the phonetic (furigana) characters from a text string
PI function	Math and trigonometry: Returns the value of pi
PMT function	Financial: Returns the periodic payment for an annuity
POISSON.DIST function 2010	Statistical: Returns the Poisson distribution

Function name	Type and description
POISSON function	Compatibility: Returns the Poisson distribution In Excel 2007, this is a Statistical function.
POWER function	Math and trigonometry: Returns the result of a number raised to a power
PPMT function	Financial: Returns the payment on the principal for an investment for a given period
PRICE function	Financial: Returns the price per \$100 face value of a security that pays periodic interest
PRICEDISC function	Financial: Returns the price per \$100 face value of a discounted security
PRICEMAT function	Financial: Returns the price per \$100 face value of a security that pays interest at maturity
PROB function	Statistical: Returns the probability that values in a range are between two limits
PRODUCT function	Math and trigonometry: Multiplies its arguments
PROPER function	Text: Capitalizes the first letter in each word of a text value
PV function	Financial: Returns the present value of an investment
QUARTILE function	Compatibility: Returns the quartile of a data set In Excel 2007, this is a Statistical function.

Function name	Type and description
QUARTILE.EXC function	Statistical: Returns the quartile of the data set, based on percentile values from 0..1, exclusive
QUARTILE.INC function	Statistical: Returns the quartile of a data set
QUOTIENT function	Math and trigonometry: Returns the integer portion of a division
RADIANS function	Math and trigonometry: Converts degrees to radians
RAND function	Math and trigonometry: Returns a random number between 0 and 1
RANDARRAY function	Math and trigonometry: Returns an array of random numbers between 0 and 1. However, you can specify the number of rows and columns to fill, minimum and maximum values, and whether to return whole numbers or decimal values.
RANDBETWEEN function	Math and trigonometry: Returns a random number between the numbers you specify
RANK.AVG function	Statistical: Returns the rank of a number in a list of numbers
RANK.EQ function	Statistical: Returns the rank of a number in a list of numbers

Function name	Type and description
RANK function	Compatibility: Returns the rank of a number in a list of numbers
	In Excel 2007, this is a Statistical function.
RATE function	Financial: Returns the interest rate per period of an annuity
RECEIVED function	Financial: Returns the amount received at maturity for a fully invested security
REDUCE	Logical: Reduces an array to an accumulated value by applying a LAMBDA to each value and returning the total value in the accumulator
REGISTER.ID function	Add-in and Automation: Returns the register ID of the specified dynamic link library (DLL) or code resource that has been previously registered
REPLACE, REPLACEB functions	Text: Replaces characters within text
REPT function	Text: Repeats text a given number of times
RIGHT, RIGHTB functions	Text: Returns the rightmost characters from a text value
ROMAN function	Math and trigonometry: Converts an arabic numeral to roman, as text
ROUND function	Math and trigonometry: Rounds a number to a specified number of digits

Function name	Type and description
ROUNDDOWN function	Math and trigonometry: Rounds a number down, toward zero
ROUNDUP function	Math and trigonometry: Rounds a number up, away from zero
ROW function	Lookup and reference: Returns the row number of a reference
ROWS function	Lookup and reference: Returns the number of rows in a reference
RRI function <small>2013</small>	Financial: Returns an equivalent interest rate for the growth of an investment
RSQ function	Statistical: Returns the square of the Pearson product moment correlation coefficient
RTD function	Lookup and reference: Retrieves real-time data from a program that supports COM automation
SCAN <small>Microsoft 365</small>	Logical: Scans an array by applying a LAMBDA to each value and returns an array that has each intermediate value
SEARCH, SEARCHB functions	Text: Finds one text value within another (not case-sensitive)
SEC function <small>2013</small>	Math and trigonometry: Returns the secant of an angle

Function name	Type and description
SECH function <small>2013</small>	Math and trigonometry: Returns the hyperbolic secant of an angle
SECOND function	Date and time: Converts a serial number to a second
SEQUENCE function <small>Microsoft 365</small>	Math and trigonometry: Generates a list of sequential numbers in an array, such as 1, 2, 3, 4
SERIESSUM function	Math and trigonometry: Returns the sum of a power series based on the formula
SHEET function <small>2013</small>	Information: Returns the sheet number of the referenced sheet
SHEETS function <small>2013</small>	Information: Returns the number of sheets in a reference
SIGN function	Math and trigonometry: Returns the sign of a number
SIN function	Math and trigonometry: Returns the sine of the given angle
SINH function	Math and trigonometry: Returns the hyperbolic sine of a number
SKEW function	Statistical: Returns the skewness of a distribution

Function name	Type and description
SKEW.P function	Statistical: Returns the skewness of a distribution based on a population: a characterization of the degree of asymmetry of a distribution around its mean
SLN function	Financial: Returns the straight-line depreciation of an asset for one period
SLOPE function	Statistical: Returns the slope of the linear regression line
SMALL function	Statistical: Returns the k-th smallest value in a data set
SORT function	Lookup and reference: Sorts the contents of a range or array
SORTBY function	Lookup and reference: Sorts the contents of a range or array based on the values in a corresponding range or array
SQRT function	Math and trigonometry: Returns a positive square root
SQRTPI function	Math and trigonometry: Returns the square root of (number * pi)
STANDARDIZE function	Statistical: Returns a normalized value
STOCKHISTORY function	Financial: Retrieves historical data about a financial instrument

Function name	Type and description
STDEV function	Compatibility: Estimates standard deviation based on a sample
STDEV.P function 2010	Statistical: Calculates standard deviation based on the entire population
STDEV.S function 2010	Statistical: Estimates standard deviation based on a sample
STDEVA function	Statistical: Estimates standard deviation based on a sample, including numbers, text, and logical values
STDEVP function	Compatibility: Calculates standard deviation based on the entire population
	In Excel 2007, this is a Statistical function.
STDEVPA function	Statistical: Calculates standard deviation based on the entire population, including numbers, text, and logical values
STEYX function	Statistical: Returns the standard error of the predicted y-value for each x in the regression
SUBSTITUTE function	Text: Substitutes new text for old text in a text string
SUBTOTAL function	Math and trigonometry: Returns a subtotal in a list or database
SUM function	Math and trigonometry: Adds its arguments

Function name	Type and description
SUMIF function	Math and trigonometry: Adds the cells specified by a given criteria
SUMIFS function	Math and trigonometry: Adds the cells in a range that meet multiple criteria
SUMPRODUCT function	Math and trigonometry: Returns the sum of the products of corresponding array components
SUMSQ function	Math and trigonometry: Returns the sum of the squares of the arguments
SUMX2MY2 function	Math and trigonometry: Returns the sum of the difference of squares of corresponding values in two arrays
SUMX2PY2 function	Math and trigonometry: Returns the sum of the sum of squares of corresponding values in two arrays
SUMXMY2 function	Math and trigonometry: Returns the sum of squares of differences of corresponding values in two arrays
SWITCH function	Logical: Evaluates an expression against a list of values and returns the result corresponding to the first matching value. If there is no match, an optional default value may be returned.
SYD function	Financial: Returns the sum-of-years' digits depreciation of an asset for a specified period

Microsoft 365

2019

Function name	Type and description
T function	Text: Converts its arguments to text
TAN function	Math and trigonometry: Returns the tangent of a number
TANH function	Math and trigonometry: Returns the hyperbolic tangent of a number
TAKE	Lookup and reference: Returns a specified number of contiguous rows or columns from the start or end of an array
Microsoft 365	
TBILLEQ function	Financial: Returns the bond-equivalent yield for a Treasury bill
TBILLPRICE function	Financial: Returns the price per \$100 face value for a Treasury bill
TBILLYIELD function	Financial: Returns the yield for a Treasury bill
T.DIST function	Statistical: Returns the Percentage Points (probability) for the Student t-distribution
2010	
T.DIST.2T function	Statistical: Returns the Percentage Points (probability) for the Student t-distribution
2010	
T.DIST.RT function	Statistical: Returns the Student's t-distribution
2010	
TDIST function	Compatibility: Returns the Student's t-distribution
TEXT function	Text: Formats a number and converts it to text

Function name	Type and description
TEXTAFTER	Text: Returns text that occurs after given character or string
Microsoft 365	
TEXTBEFORE	Text: Returns text that occurs before a given character or string
Microsoft 365	
TEXTJOIN	Text: Combines the text from multiple ranges and/or strings
Microsoft 365	
TEXTSPLIT	Text: Splits text strings by using column and row delimiters
Microsoft 365	
TIME function	Date and time: Returns the serial number of a particular time
TIMEVALUE function	Date and time: Converts a time in the form of text to a serial number
T.INV function	Statistical: Returns the t-value of the Student's t-distribution as a function of the probability and the degrees of freedom
2010	
T.INV.2T function	Statistical: Returns the inverse of the Student's t-distribution
2010	
TINV function	Compatibility: Returns the inverse of the Student's t-distribution

Function name	Type and description
TOCOL	Lookup and reference: Returns the array in a single column
Microsoft 365	
TOROW	Lookup and reference: Returns the array in a single row
Microsoft 365	
TODAY function	Date and time: Returns the serial number of today's date
TRANSPOSE function	Lookup and reference: Returns the transpose of an array
TREND function	Statistical: Returns values along a linear trend
TRIM function	Text: Removes spaces from text
TRIMMEAN function	Statistical: Returns the mean of the interior of a data set
TRUE function	Logical: Returns the logical value TRUE
TRUNC function	Math and trigonometry: Truncates a number to an integer
T.TEST function	Statistical: Returns the probability associated with a Student's t-test
2010	

Function name	Type and description
TTEST function	Compatibility: Returns the probability associated with a Student's t-test In Excel 2007, this is a Statistical function.
TYPE function	Information: Returns a number indicating the data type of a value
UNICHAR function 2013	Text: Returns the Unicode character that is referenced by the given numeric value
UNICODE function 2013	Text: Returns the number (code point) that corresponds to the first character of the text
UNIQUE function Microsoft 365	Lookup and reference: Returns a list of unique values in a list or range
UPPER function	Text: Converts text to uppercase
VALUE function	Text: Converts a text argument to a number
VALUETOTEXT Microsoft 365	Text: Returns text from any specified value
VAR function	Compatibility: Estimates variance based on a sample In Excel 2007, this is a Statistical function.
VAR.P function 2010	Statistical: Calculates variance based on the entire population

Function name	Type and description
VAR.S function	Statistical: Estimates variance based on a sample
2010	
VARA function	Statistical: Estimates variance based on a sample, including numbers, text, and logical values
VARP function	Compatibility: Calculates variance based on the entire population
	In Excel 2007, this is a Statistical function.
VARPA function	Statistical: Calculates variance based on the entire population, including numbers, text, and logical values
VDB function	Financial: Returns the depreciation of an asset for a specified or partial period by using a declining balance method
VLOOKUP function	Lookup and reference: Looks in the first column of an array and moves across the row to return the value of a cell
VSTACK	Look and reference: Appends arrays vertically and in sequence to return a larger array
Microsoft 365	
WEBSERVICE function	Web: Returns data from a web service.
2013	This function is not available in Excel for the web.
WEEKDAY function	Date and time: Converts a serial number to a day of the week

Function name	Type and description
WEEKNUM function	Date and time: Converts a serial number to a number representing where the week falls numerically with a year
WEIBULL function	Compatibility: Calculates variance based on the entire population, including numbers, text, and logical values
	In Excel 2007, this is a Statistical function.
WEIBULL.DIST function	Statistical: Returns the Weibull distribution
2010	
WORKDAY function	Date and time: Returns the serial number of the date before or after a specified number of workdays
WORKDAY.INTL function	Date and time: Returns the serial number of the date before or after a specified number of workdays using parameters to indicate which and how many days are weekend days
2010	
WRAPCOLS	Look and reference: Wraps the provided row or column of values by columns after a specified number of elements
Microsoft 365	
WRAPROWS	Look and reference: Wraps the provided row or column of values by rows after a specified number of elements
Microsoft 365	
XIRR function	Financial: Returns the internal rate of return for a schedule of cash flows that is not necessarily periodic

Function name	Type and description
XLOOKUP function	Lookup and reference: Searches a range or an array, and returns an item corresponding to the first match it finds. If a match doesn't exist, then XLOOKUP can return the closest (approximate) match.
XMATCH function	Lookup and reference: Returns the relative position of an item in an array or range of cells.
XNPV function	Financial: Returns the net present value for a schedule of cash flows that is not necessarily periodic
XOR function	Logical: Returns a logical exclusive OR of all arguments
YEAR function	Date and time: Converts a serial number to a year
YEARFRAC function	Date and time: Returns the year fraction representing the number of whole days between start_date and end_date
YIELD function	Financial: Returns the yield on a security that pays periodic interest
YIELDDISC function	Financial: Returns the annual yield for a discounted security; for example, a Treasury bill
YIELDMAT function	Financial: Returns the annual yield of a security that pays interest at maturity
Z.TEST function	Statistical: Returns the one-tailed probability-value of a z-test

Function name	Type and description
ZTEST function	<p>Compatibility: Returns the one-tailed probability-value of a z-test</p> <p>In Excel 2007, this is a Statistical function.</p>