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New functions in Excel 2013

 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](http://office.microsoft.com/en-us/excel-help/redir/HA103462984.aspx?CTT=5&origin=HA103980604).

Click any function name in the following list to see detailed help about that function.

|  |  |
| --- | --- |
| **Function name** | **Type and description** |
| [ACOT function](http://office.microsoft.com/en-us/excel-help/redir/HA102753256.aspx?CTT=5&origin=HA103980604) | **Math and trigonometry:**    Returns the arccotangent of a number |
| [ACOTH function](http://office.microsoft.com/en-us/excel-help/redir/HA102753257.aspx?CTT=5&origin=HA103980604) | **Math and trigonometry:**    Returns the hyperbolic arccotangent of a number |
| [ARABIC function](http://office.microsoft.com/en-us/excel-help/redir/HA102753258.aspx?CTT=5&origin=HA103980604) | **Math and trigonometry:**    Converts a Roman number to Arabic, as a number |
| [BASE function](http://office.microsoft.com/en-us/excel-help/redir/HA102753259.aspx?CTT=5&origin=HA103980604) | **Math and trigonometry:**    Converts a number into a text representation with the given radix (base) |
| [BINOM.DIST.RANGE function](http://office.microsoft.com/en-us/excel-help/redir/HA102753250.aspx?CTT=5&origin=HA103980604) | **Statistical:**    Returns the probability of a trial result using a binomial distribution |
| [BITAND function](http://office.microsoft.com/en-us/excel-help/redir/HA102753251.aspx?CTT=5&origin=HA103980604) | **Engineering:**    Returns a 'Bitwise And' of two numbers |
| [BITLSHIFT function](http://office.microsoft.com/en-us/excel-help/redir/HA102753252.aspx?CTT=5&origin=HA103980604) | **Engineering:**    Returns a value number shifted left by shift\_amount bits |
| [BITOR function](http://office.microsoft.com/en-us/excel-help/redir/HA102753253.aspx?CTT=5&origin=HA103980604) | **Engineering:**    Returns a bitwise OR of 2 numbers |
| [BITRSHIFT function](http://office.microsoft.com/en-us/excel-help/redir/HA102753254.aspx?CTT=5&origin=HA103980604) | **Engineering:**    Returns a value number shifted right by shift\_amount bits |
| [BITXOR function](http://office.microsoft.com/en-us/excel-help/redir/HA102753255.aspx?CTT=5&origin=HA103980604) | **Engineering:**    Returns a bitwise 'Exclusive Or' of two numbers |
| [CEILING.MATH function](http://office.microsoft.com/en-us/excel-help/redir/HA102753249.aspx?CTT=5&origin=HA103980604) | **Math and trigonometry:**    Rounds a number up, to the nearest integer or to the nearest multiple of significance |
| [COMBINA function](http://office.microsoft.com/en-us/excel-help/redir/HA102753248.aspx?CTT=5&origin=HA103980604) | **Math and trigonometry:**    Returns the number of combinations with repetitions for a given number of items |
| [COT function](http://office.microsoft.com/en-us/excel-help/redir/HA102753260.aspx?CTT=5&origin=HA103980604) | **Math and trigonometry:**    Returns the hyperbolic cosine of a number |
| [COTH function](http://office.microsoft.com/en-us/excel-help/redir/HA102753261.aspx?CTT=5&origin=HA103980604) | **Math and trigonometry:**    Returns the cotangent of an angle |
| [CSC function](http://office.microsoft.com/en-us/excel-help/redir/HA102753262.aspx?CTT=5&origin=HA103980604) | **Math and trigonometry:**    Returns the cosecant of an angle |
| [CSCH function](http://office.microsoft.com/en-us/excel-help/redir/HA102753263.aspx?CTT=5&origin=HA103980604) | **Math and trigonometry:**    Returns the hyperbolic cosecant of an angle |
| [DAYS function](http://office.microsoft.com/en-us/excel-help/redir/HA102753275.aspx?CTT=5&origin=HA103980604) | **Date and time:**    Returns the number of days between two dates |
| [DECIMAL function](http://office.microsoft.com/en-us/excel-help/redir/HA102753276.aspx?CTT=5&origin=HA103980604) | **Math and trigonometry:**    Converts a text representation of a number in a given base into a decimal number |
| [ENCODEURL function](http://office.microsoft.com/en-us/excel-help/redir/HA102780999.aspx?CTT=5&origin=HA103980604) | **Web:**    Returns a URL-encoded string |
| [FILTERXML function](http://office.microsoft.com/en-us/excel-help/redir/HA102781000.aspx?CTT=5&origin=HA103980604) | **Web:**    Returns specific data from the XML content by using the specified XPath |
| [FLOOR.MATH function](http://office.microsoft.com/en-us/excel-help/redir/HA102753279.aspx?CTT=5&origin=HA103980604) | **Math and trigonometry:**    Rounds a number down, to the nearest integer or to the nearest multiple of significance |
| [FORMULATEXT function](http://office.microsoft.com/en-us/excel-help/redir/HA102753280.aspx?CTT=5&origin=HA103980604) | **Lookup and reference:**    Returns the formula at the given reference as text |
| [GAMMA function](http://office.microsoft.com/en-us/excel-help/redir/HA102753277.aspx?CTT=5&origin=HA103980604) | **Statistical:**    Returns the Gamma function value |
| [GAUSS function](http://office.microsoft.com/en-us/excel-help/redir/HA102753278.aspx?CTT=5&origin=HA103980604) | **Statistical:**    Returns 0.5 less than the standard normal cumulative distribution |
| [IFNA function](http://office.microsoft.com/en-us/excel-help/redir/HA102753281.aspx?CTT=5&origin=HA103980604) | **Logical:**    Returns the value you specify if the expression resolves to #N/A, otherwise returns the result of the expression |
| [IMCOSH function](http://office.microsoft.com/en-us/excel-help/redir/HA102753282.aspx?CTT=5&origin=HA103980604) | **Engineering:**    Returns the hyperbolic cosine of a complex number |
| [IMCOT function](http://office.microsoft.com/en-us/excel-help/redir/HA102753283.aspx?CTT=5&origin=HA103980604) | **Engineering:**    Returns the cotangent of a complex number |
| [IMCSC function](http://office.microsoft.com/en-us/excel-help/redir/HA102753284.aspx?CTT=5&origin=HA103980604) | **Engineering:**    Returns the cosecant of a complex number |
| [IMCSCH function](http://office.microsoft.com/en-us/excel-help/redir/HA102753285.aspx?CTT=5&origin=HA103980604) | **Engineering:**    Returns the hyperbolic cosecant of a complex number |
| [IMSEC function](http://office.microsoft.com/en-us/excel-help/redir/HA102753287.aspx?CTT=5&origin=HA103980604) | **Engineering:**    Returns the secant of a complex number |
| [IMSECH function](http://office.microsoft.com/en-us/excel-help/redir/HA102753288.aspx?CTT=5&origin=HA103980604) | **Engineering:**    Returns the hyperbolic secant of a complex number |
| [IMSINH function](http://office.microsoft.com/en-us/excel-help/redir/HA102753289.aspx?CTT=5&origin=HA103980604) | **Engineering:**    Returns the hyperbolic sine of a complex number |
| [IMTAN function](http://office.microsoft.com/en-us/excel-help/redir/HA102753286.aspx?CTT=5&origin=HA103980604) | **Engineering:**    Returns the tangent of a complex number |
| [ISFORMULA function](http://office.microsoft.com/en-us/excel-help/redir/HA102753291.aspx?CTT=5&origin=HA103980604) | **Information:**    Returns TRUE if there is a reference to a cell that contains a formula |
| [ISOWEEKNUM function](http://office.microsoft.com/en-us/excel-help/redir/HA102753290.aspx?CTT=5&origin=HA103980604) | **Date and time:**    Returns the number of the ISO week number of the year for a given date |
| [MUNIT function](http://office.microsoft.com/en-us/excel-help/redir/HA102753292.aspx?CTT=5&origin=HA103980604) | **Math and trigonometry:**    Returns the unit matrix or the specified dimension |
| [NUMBERVALUE function](http://office.microsoft.com/en-us/excel-help/redir/HA102753294.aspx?CTT=5&origin=HA103980604) | **Text:**    Converts text to number in a locale-independent manner |
| [PDURATION function](http://office.microsoft.com/en-us/excel-help/redir/HA102753293.aspx?CTT=5&origin=HA103980604) | **Financial:**    Returns the number of periods required by an investment to reach a specified value |
| [PERMUTATIONA function](http://office.microsoft.com/en-us/excel-help/redir/HA102753264.aspx?CTT=5&origin=HA103980604) | **Statistical:**    Returns the number of permutations for a given number of objects (with repetitions) that can be selected from the total objects |
| [PHI function](http://office.microsoft.com/en-us/excel-help/redir/HA102753265.aspx?CTT=5&origin=HA103980604) | **Statistical:**    Returns the value of the density function for a standard normal distribution |
| [RRI function](http://office.microsoft.com/en-us/excel-help/redir/HA102753267.aspx?CTT=5&origin=HA103980604) | **Financial:**    Returns an equivalent interest rate for the growth of an investment |
| [SEC function](http://office.microsoft.com/en-us/excel-help/redir/HA102753268.aspx?CTT=5&origin=HA103980604) | **Math and trigonometry:**    Returns the secant of an angle |
| [SECH function](http://office.microsoft.com/en-us/excel-help/redir/HA102753269.aspx?CTT=5&origin=HA103980604) | **Math and trigonometry:**    Returns the hyperbolic secant of an angle |
| [SHEET function](http://office.microsoft.com/en-us/excel-help/redir/HA102753270.aspx?CTT=5&origin=HA103980604) | **Information:**    Returns the sheet number of the referenced sheet |
| [SHEETS function](http://office.microsoft.com/en-us/excel-help/redir/HA102753271.aspx?CTT=5&origin=HA103980604) | **Information:**    Returns the number of sheets in a reference |
| [SKEW.P function](http://office.microsoft.com/en-us/excel-help/redir/HA102753266.aspx?CTT=5&origin=HA103980604) | **Statistical:**    Returns the skewness of a distribution based on a population: a characterization of the degree of asymmetry of a distribution around its mean |
| [UNICHAR function](http://office.microsoft.com/en-us/excel-help/redir/HA102753273.aspx?CTT=5&origin=HA103980604) | **Text:**    Returns the Unicode character that is references by the given numeric value |
| [UNICODE function](http://office.microsoft.com/en-us/excel-help/redir/HA102753274.aspx?CTT=5&origin=HA103980604) | **Text:**    Returns the number (code point) that corresponds to the first character of the text |
| [WEBSERVICE function](http://office.microsoft.com/en-us/excel-help/redir/HA102780998.aspx?CTT=5&origin=HA103980604) | **Web:**    Returns data from a web service. |
| [XOR function](http://office.microsoft.com/en-us/excel-help/redir/HA102753272.aspx?CTT=5&origin=HA103980604) | **Logical:**    Returns a logical exclusive OR of all arguments |