PrioRity ConSult

The 200 Most Common Excel Functions Explained

Contact: 0533366793 | Location: Dambai

Introduction

This comprehensive guide, prepared by **PrioRity ConSult**, serves as a definitive reference for the 200 most frequently used Excel functions. Mastering these tools will significantly enhance your productivity in data analysis, financial modeling, and reporting.

1. Mathematical & Trigonometric

1. **SUM**: Adds all numbers in a range of cells.
2. **AVERAGE**: Returns the arithmetic mean of its arguments.
3. **MIN**: Returns the smallest value in a set of values.
4. **MAX**: Returns the largest value in a set of values.
5. **COUNT**: Counts how many cells contain numbers.
6. **COUNTA**: Counts how many cells are not empty.
7. **COUNTBLANK**: Counts the number of empty cells in a range.
8. **PRODUCT**: Multiplies all the numbers given as arguments.
9. **ABS**: Returns the absolute value of a number.
10. **ROUND**: Rounds a number to a specified number of digits.
11. **ROUNDUP**: Rounds a number up, away from zero.
12. **ROUNDDOWN**: Rounds a number down, toward zero.
13. **MROUND**: Returns a number rounded to the desired multiple.
14. **CEILING.MATH**: Rounds a number up to the nearest integer or multiple of significance.
15. **FLOOR.MATH**: Rounds a number down to the nearest integer or multiple of significance.
16. **INT**: Rounds a number down to the nearest integer.
17. **TRUNC**: Truncates a number to an integer by removing the fractional part.
18. **MOD**: Returns the remainder after division.
19. **POWER**: Returns the result of a number raised to a power.
20. **SQRT**: Returns a positive square root.
21. **EXP**: Returns e raised to the power of a given number.

22. **LN**: Returns the natural logarithm of a number.
23. **LOG10**: Returns the base-10 logarithm of a number.
24. **PI**: Returns the value of pi.
25. **RAND**: Returns a random number between 0 and 1.
26. **RANDBETWEEN**: Returns a random number between specified numbers.
27. **SUMPRODUCT**: Multiplies corresponding components in arrays and sums the products.
28. **AGGREGATE**: Returns an aggregate in a list or database with options to ignore errors.
29. **SUBTOTAL**: Returns a subtotal in a list or database.
30. **ROMAN**: Converts an Arabic numeral to Roman, as text.
31. **ARABIC**: Converts a Roman numeral to Arabic.
32. **QUOTIENT**: Returns the integer portion of a division.
33. **RADIANS**: Converts degrees to radians.
34. **DEGREES**: Converts radians to degrees.
35. **COMBIN**: Returns the number of combinations for a given number of items.

2. Logical Functions

36. **IF**: Specifies a logical test to perform.
37. **IFS**: Checks whether one or more conditions are met.
38. **AND**: Returns TRUE if all its arguments are TRUE.
39. **OR**: Returns TRUE if any argument is TRUE.
40. **NOT**: Reverses the logic of its argument.
41. **XOR**: Returns a logical exclusive OR of all arguments.
42. **IFERROR**: Returns a value you specify if a formula evaluates to an error.
43. **IFNA**: Returns the value you specify if the expression resolves to #N/A.
44. **SWITCH**: Evaluates an expression against a list of values and returns the first match.
45. **TRUE**: Returns the logical value TRUE.
46. **FALSE**: Returns the logical value FALSE.

3. Lookup & Reference

47. **VLOOKUP**: Looks for a value in the leftmost column of a table.
48. **HLOOKUP**: Looks for a value in the top row of a table.
49. **XLOOKUP**: Searches a range or an array, and returns an item from a second range.
50. **INDEX**: Uses an index to choose a value from a reference or array.
51. **MATCH**: Looks up values in a reference or array.
52. **XMATCH**: Returns the relative position of an item in an array (modern version).
53. **CHOOSE**: Chooses a value from a list of values.
54. **OFFSET**: Returns a reference offset from a given reference.
55. **INDIRECT**: Returns a reference specified by a text value.
56. **TRANSPOSE**: Returns the transpose of an array.
57. **UNIQUE**: Returns a list of unique values in a list or range.
58. **FILTER**: Filters a range of data based on criteria.
59. **SORT**: Sorts a range or array.
60. **SORTBY**: Sorts a range or array based on the values in a corresponding range.
61. **COLUMN**: Returns the column number of a reference.
62. **ROW**: Returns the row number of a reference.
63. **COLUMNS**: Returns the number of columns in a reference.
64. **ROWS**: Returns the number of rows in a reference.
65. **HYPERLINK**: Creates a shortcut or jump to a document.
66. **FORMULATEXT**: Returns the formula at the given reference as text.
67. **GETPIVOTDATA**: Returns data stored in a PivotTable.
68. **ADDRESS**: Creates a cell address as text, given row and column numbers.
69. **AREAS**: Returns the number of areas in a reference.

4. Text Functions

70. **CONCAT**: Combines the text from multiple ranges/strings.
71. **TEXTJOIN**: Combines text from multiple ranges using a delimiter.
72. **LEFT**: Returns the leftmost characters from a text value.
73. **RIGHT**: Returns the rightmost characters from a text value.
74. **MID**: Returns a specific number of characters from a text string starting at a position.
75. **LEN**: Returns the number of characters in a text string.

76. **TRIM**: Removes spaces from text.
77. **CLEAN**: Removes all nonprintable characters from text.
78. **SUBSTITUTE**: Substitutes new text for old text in a string.
79. **REPLACE**: Replaces characters within text.
80. **UPPER**: Converts text to uppercase.
81. **LOWER**: Converts text to lowercase.
82. **PROPER**: Capitalizes the first letter in each word of a text value.
83. **TEXT**: Formats a number and converts it to text.
84. **VALUE**: Converts a text argument to a number.
85. **EXACT**: Checks to see if two text values are identical.
86. **FIND**: Finds one text value within another (case-sensitive).
87. **SEARCH**: Finds one text value within another (not case-sensitive).
88. **REPT**: Repeats text a given number of times.
89. **TEXTBEFORE**: Returns text that occurs before a given character.
90. **TEXTAFTER**: Returns text that occurs after a given character.
91. **TEXTSPLIT**: Splits text strings by using column and row delimiters.
92. **VALUETOTEXT**: Returns text from any specified value.
93. **CHAR**: Returns the character specified by the code number.
94. **CODE**: Returns a numeric code for the first character in a text string.
95. **DOLLAR**: Converts a number to text, using the currency format.
96. **FIXED**: Formats a number as text with a fixed number of decimals.
97. **T**: Converts its arguments to text.
98. **UNICHAR**: Returns the Unicode character that is referenced by the given numeric value.
99. **UNICODE**: Returns the number (code point) that corresponds to the first character of the text.

5. Date & Time

100. **TODAY**: Returns the serial number of today's date.
101. **NOW**: Returns the serial number of the current date and time.
102. **DATE**: Returns the serial number of a particular date.
103. **TIME**: Returns the serial number of a particular time.
104. **DAY**: Converts a serial number to a day of the month.

105. **MONTH**: Converts a serial number to a month.
106. **YEAR**: Converts a serial number to a year.
107. **HOUR**: Converts a serial number to an hour.
108. **MINUTE**: Converts a serial number to a minute.
109. **SECOND**: Converts a serial number to a second.
110. **WEEKDAY**: Converts a serial number to a day of the week.
111. **WEEKNUM**: Converts a serial number to a number representing the week in the year.
112. **EDATE**: Returns the serial number of the date that is a number of months before or after the start date.
113. **EOMONTH**: Returns the serial number of the last day of the month.
114. **NETWORKDAYS**: Returns the number of whole workdays between two dates.
115. **NETWORKDAYS.INTL**: Returns workdays between two dates with custom weekend parameters.
116. **WORKDAY**: Returns the serial number of the date before or after a specified number of workdays.
117. **WORKDAY.INTL**: Returns the serial number of the date before or after workdays with custom weekends.
118. **DATEDIF**: Calculates the number of days, months, or years between two dates.
119. **YEARFRAC**: Returns the year fraction representing the number of whole days between dates.
120. **ISOWEEKNUM**: Returns the number of the ISO week number of the year for a given date.
121. **DAYS**: Returns the number of days between two dates.
122. **DAYS360**: Calculates the number of days between two dates based on a 360-day year.

6. Statistical Functions

123. **COUNTIF**: Counts the number of cells within a range that meet the given criteria.
124. **COUNTIFS**: Counts the number of cells within a range that meet multiple criteria.
125. **SUMIF**: Adds the cells specified by a given criteria.
126. **SUMIFS**: Adds the cells in a range that meet multiple criteria.
127. **AVERAGEIF**: Returns the average of all the cells in a range that meet a given criteria.
128. **AVERAGEIFS**: Returns the average of all cells that meet multiple criteria.
129. **MAXIFS**: Returns the maximum value among cells specified by conditions.
130. **MINIFS**: Returns the minimum value among cells specified by conditions.
131. **MEDIAN**: Returns the median of the given numbers.

132. **MODE.SNGL**: Returns the most common value in a data set.
133. **STDEV.S**: Estimates standard deviation based on a sample.
134. **STDEV.P**: Calculates standard deviation based on the entire population.
135. **VAR.S**: Estimates variance based on a sample.
136. **VAR.P**: Calculates variance based on the entire population.
137. **LARGE**: Returns the k-th largest value in a data set.
138. **SMALL**: Returns the k-th smallest value in a data set.
139. **RANK.EQ**: Returns the rank of a number in a list of numbers.
140. **PERCENTILE.INC**: Returns the k-th percentile of values in a range.
141. **QUARTILE.INC**: Returns the quartile of a data set.
142. **CORREL**: Returns the correlation coefficient between two data sets.
143. **FORECAST.LINEAR**: Predicts a future value by using existing values.
144. **FREQUENCY**: Returns a frequency distribution as a vertical array.
145. **NORM.DIST**: Returns the normal cumulative distribution.
146. **NORM.INV**: Returns the inverse of the normal cumulative distribution.
147. **T.DIST**: Returns the Student's t-distribution.
148. **T.TEST**: Returns the probability associated with a Student's t-test.
149. **CONFIDENCE.NORM**: Returns the confidence interval for a population mean.
150. **CHISQ.DIST**: Returns the chi-squared distribution.
151. **BINOM.DIST**: Returns the individual term binomial distribution probability.
152. **POISSON.DIST**: Returns the Poisson distribution.

7. Financial Functions

153. **PMT**: Calculates the periodic payment for an annuity.
154. **FV**: Returns the future value of an investment.
155. **PV**: Returns the present value of an investment.
156. **NPV**: Returns the net present value of an investment.
157. **IRR**: Returns the internal rate of return for a series of cash flows.
158. **XNPV**: Returns the net present value for cash flows that are not necessarily periodic.
159. **XIRR**: Returns the internal rate of return for cash flows that are not necessarily periodic.
160. **RATE**: Returns the interest rate per period of an annuity.
161. **NPER**: Returns the number of periods for an investment.

162. **IPMT**: Returns the interest payment for an investment for a given period.
163. **PPMT**: Returns the payment on the principal for an investment for a given period.
164. **SLN**: Returns the straight-line depreciation of an asset for one period.
165. **SYD**: Returns the sum-of-years' digits depreciation of an asset for a specified period.
166. **DDB**: Returns the depreciation of an asset using the double-declining balance method.
167. **AMORLINC**: Returns the depreciation for each accounting period.
168. **ACCRINT**: Returns the accrued interest for a security that pays periodic interest.
169. **PRICE**: Returns the price per $100 face value of a security that pays periodic interest.
170. **YIELD**: Returns the yield on a security that pays periodic interest.
171. **NOMINAL**: Returns the annual nominal interest rate.
172. **EFFECT**: Returns the effective annual interest rate.

8. Information & Logical Checks

173. **ISNUMBER**: Returns TRUE if the value is a number.
174. **ISTEXT**: Returns TRUE if the value is text.
175. **ISNONTEXT**: Returns TRUE if the value is not text.
176. **ISBLANK**: Returns TRUE if the cell is empty.
177. **ISERROR**: Returns TRUE if the value is any error value.
178. **ISERR**: Returns TRUE if the value is any error value except #N/A.
179. **ISNA**: Returns TRUE if the value is the #N/A error value.
180. **ISEVEN**: Returns TRUE if the number is even.
181. **ISODD**: Returns TRUE if the number is odd.
182. **ISFORMULA**: Returns TRUE if there is a reference to a cell that contains a formula.
183. **ISREF**: Returns TRUE if the value is a reference.
184. **TYPE**: Returns a number indicating the data type of a value.
185. **SHEET**: Returns the sheet number of the referenced sheet.
186. **SHEETS**: Returns the number of sheets in a reference.
187. **ERROR.TYPE**: Returns a number corresponding to an error type.

9. Engineering & Compatibility

188. **CONVERT**: Converts a number from one measurement system to another.
189. **BIN2DEC**: Converts a binary number to decimal.
190. **DEC2BIN**: Converts a decimal number to binary.
191. **DEC2HEX**: Converts a decimal number to hexadecimal.
192. **HEX2DEC**: Converts a hexadecimal number to decimal.
193. **DELTA**: Tests whether two values are equal.
194. **GESTEP**: Tests whether a number is greater than a threshold value.
195. **BITAND**: Returns a 'Bitwise And' of two numbers.
196. **BITOR**: Returns a 'Bitwise Or' of two numbers.
197. **BITXOR**: Returns a 'Bitwise Xor' of two numbers.

10. Database Functions

198. **DSUM**: Adds the numbers in the field column of records that match the criteria.
199. **DAVERAGE**: Returns the average of selected database entries.
200. **DCOUNT**: Counts the cells that contain numbers in a database.
201. **DCOUNTA**: Counts non-empty cells in a database.
202. **DMAX**: Returns the maximum value from selected database entries.
203. **DMIN**: Returns the minimum value from selected database entries.
204. **DPRODUCT**: Multiplies the values in a particular field of records.
205. **DGET**: Extracts a single record that matches specified criteria.

11. Modern Array & Lambda Functions

206. **SEQUENCE**: Generates a list of sequential numbers in an array.
207. **LET**: Assigns names to calculation results.
208. **LAMBDA**: Create custom, reusable functions.
209. **MAP**: Maps each value in an array to a new value.
210. **REDUCE**: Reduces an array to an accumulated value.
211. **SCAN**: Scans an array by applying a lambda to each value.
212. **TAKE**: Returns a specified number of rows or columns.
213. **DROP**: Excludes a specified number of rows or columns.
214. **CHOOSEROWS**: Returns the specified rows from an array.

215. **CHOOSECOLS**: Returns the specified columns from an array.
216. **VSTACK**: Appends arrays vertically.
217. **HSTACK**: Appends arrays horizontally.
218. **TOCOL**: Returns the array as a single column.
219. **TOROW**: Returns the array as a single row.
220. **WRAPROWS**: Wraps a row or column of values by rows.
221. **WRAPCOLS**: Wraps a row or column of values by columns.
222. **BYROW**: Applies a lambda to each row.
223. **BYCOL**: Applies a lambda to each column.
224. **EXPAND**: Expands an array to specified dimensions.
225. **MAKEARRAY**: Returns a calculated array of a specified size.

This document provides a robust foundation for anyone using Excel at an intermediate to advanced level. For professional consulting, data cleaning, or Excel training, reach out to the experts at PrioRity ConSult.