### Logic Functions
- **IF**
  - Return different values based on TRUE or FALSE
- **AND**
  - Multiple conditions have to be TRUE
- **OR**
  - Any condition has to be TRUE
- **NOT**
  - Converts TRUE to FALSE and FALSE to TRUE
- **IFERROR**
  - Control what is output if input is an error
- **ISNA**
  - Test if input is #N/A, return TRUE or FALSE
- **ISBLANK**
  - Test if input is blank, return TRUE or FALSE
- **ROUND**
  - Round to the nearest X digits
- **ROUNDUP**
  - Round up to the nearest X digits
- **ROUNDDOWN**
  - Round down to the nearest X digits
- **ABS**
  - Absolute value
- **ABS**
  - Absolute value
- **TRUNC**
  - Truncate by removing decimals
- **EXP**
  - Exponential (e^X)
- **LN**
  - Natural log
- **LOG**
  - Log base X
- **INDEX**
  - Return the Nth value in a row or column
- **MATCH**
  - Find a value within a row or column
- **LEFT**
  - Left-most X characters from text
- **RIGHT**
  - Right-most X characters from text
- **MID**
  - X characters starting with Y-th character
- **LEN**
  - Length of text
- **REPLACE**
  - Remove X characters; replace with new text
- **SUBSTITUTE**
  - Remove old text; replace with new text
- **CONCATENATE**
  - Paste together strings
- **VALUE**
  - Convert text to numeric value
- **TEXT**
  - Convert numeric value to formatted text

### Text Functions
- **TRIM**
  - Removes excess spaces from text
- **CLEAN**
  - Removes unprintable characters
- **UPPER**
  - Convert to all UPPER CASE
- **LOWER**
  - Convert to all lower case
- **PROPER**
  - Convert to all Proper Case
- **FIND**
  - Find position of text within text (CS)*
- **SEARCH**
  - Find position of text within text (NCS)**
- **LEFT**
  - Left-most X characters from text
- **RIGHT**
  - Right-most X characters from text
- **MID**
  - X characters starting with Y-th character
- **LEN**
  - Length of text

### Aggregate and Data Functions
- **SUM**
  - Sum of values
- **SUMIF**
  - Sum of values that meet a condition
- **SUMIFS**
  - Sum of values that meet multiple conditions
- **SUMPRODUCT**
  - Multiply values in 2 ranges then add the results
- **COUNT**
  - Count cells in range that contains numbers
- **COUNTIF**
  - Count cells in range that meet a condition
- **COUNTIFS**
  - Count cells that meet multiple conditions
- **COUNTA**
  - Count cells in range that are not blank
- **AVERAGE**
  - Average of values
- **AVERAGEIF**
  - Average of values that meet a condition
- **MAX**
  - Maximum of values
- **MIN**
  - Minimum of values
- **MEDIAN**
  - Median (middle value) of values
- **PERCENTILE**
  - Nth percentile within values
- **MODE**
  - Mode (most frequent value) among values
- **STDEV / STDEVP**
  - Standard deviation of values
- **VAR / VARP**
  - Variance of values
- **CORREL**
  - Correlation between two sets of values
- **COVAR**
  - Covariance between two sets of values
- **RANK**
  - Where a value ranks in a range of values
- **LARGE**
  - Returns Nth largest value in a range
- **SMALL**
  - Returns Nth smallest value in a range

### Math Functions
- **ROUND**
  - Round to the nearest X digits
- **ROUNDUP**
  - Round up to the nearest X digits
- **ROUNDDOWN**
  - Round down to the nearest X digits
- **ABS**
  - Absolute value
- **TRUNC**
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  - Length of text
- **REPLACE**
  - Remove X characters; replace with new text
- **SUBSTITUTE**
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- **TEXT**
  - Convert numeric value to formatted text

### Lookup and Offset Functions
- **VLOOKUP**
  - Look for a value vertically in a table
- **HLOOKUP**
  - Look for a value horizontally in a table
- **INDEX**
  - Return the Nth value in a row or column
- **MATCH**
  - Find a value within a row or column
- **OFFSET**
  - Move or resize a cell reference
- **ADDRESS**
  - Convert Row# and Col# into cell reference
- **ROW**
  - Row number of cell reference
- **COLUMN**
  - Column number of cell reference

### Financial Functions
- **XIRR**
  - Annual IRR from dates and cash flows
- **XNPV**
  - NPV from dates and cash flows
- **PMT**
  - Investment’s periodic Payment
- **RATE**
  - Investment’s periodic Interest Rate
- **NPER**
  - Investment’s Number of Periods
- **PV**
  - Investment’s Present Value (not NPV!)
- **FV**
  - Investment’s Future Value

### Date Functions
- **TODAY**
  - Today’s date (always updates)
- **NOW**
  - Current date and time (always updates)
- **DATE**
  - Convert Month/Day/Year values to date
- **YEAR**
  - Return year component of a date
- **MONTH**
  - Return month component of a date
- **DAY**
  - Return day component of a date
- **EDATE**
  - Move a date forward/backward X months
- **EOMONTH**
  - Last day of the month of a date
- **NETWORKDAYS**
  - Number of workdays between dates

### Function Tips and Shortcuts
- #REF! errors should always be corrected, ASAP
- #N/A error can be meaningful, best handled with IFERROR

- Named References make formulas easier to understand
- F2 and ESC: look inside cells to see their formulas
- F4: anchor cells within formulas
- F9: evaluate the selected part of a formula

* Case-sensitive
** Not case-sensitive

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