EXCEL CHEAT SHEET

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CELLS AND RANGES

SPECIFYING CELL LOCATION
=A1

SPECIFYING ABSOLUTE CELL REFERENCES WITH $

=A1	Column and row references are both absolute
=$A1	Column refence is absolute and row reference is relative
=A$1	Column reference is relative and row reference is absolute

START:END FORMAT
Reference to up (left) and bottom (right) cell of range of cells

OPERATORS

ARITHMETIC OPERATORS

=A1 + A2	Adds the values in cells A1 and A2.
=A1 - A2	Subtracts the value in cell A2 from cell A1.
=A1 * A2	Multiplies the values in cells A1 and A2.
=A1 / A2	Divides the value in cell A1 by the value in A2.
=A1%	Converts the value in A1 to a percentage.
=A1^A2	Raises the value in A1 to the power of the value in A2.

NUMERIC OPERATORS

=A1 = B1	Checks if the value in A1 is equal to the value in B1.
=A1 > B1	Checks if the value in A1 is greater than the value in B1.
=A1 < B1	Checks if the value in A1 is less than the value in B1.
=A1 >= B1	Checks if the value in A1 is greater than or equal to the value in B1.
=A1 <= B1	Checks if the value in A1 is less than or equal to the value in B1.
=A1 <> B1	Checks if the value in A1 is not equal to the value in B1.

FUNCTIONS

MATHEMATICAL FUNCTIONS

Name	Example	Description	Syntax
SUM	=SUM(A1:A20)	The SUM function adds values in cells A1:20	SUM(number1,[number2],...)
AVERAGE	=AVERAGE(A1:A10)	Returns the average value from the specified range of cells.	AVERAGE(number1, number2, …)
MAX	=MAX(A1:A10)	Returns the highest value from the specified range of cells.	MAX(number1, number2, …)
MIN	=MIN(A1:A10)	Returns the lowest value from the specified range of cells.	MIN(number1, number2, …)
COUNT	=COUNT(A1:A10)	Counts the number of numeric values in the specified range of cells.	COUNT(value1, value2, …)
MEDIAN	=MEDIAN(A1:A10)	Returns the median (middle number) of the specified range.	MEDIAN(number1, number2, …)
PERCENTILE	=PERCENTILE(A1:A10, 0.5)	Returns the kth percentile of values in a range (e.g., 0.5 for the 50th percentile).	PERCENTILE(array, k)

LOGICAL FUNCTIONS

Name	Example	Description	Syntax
IF	=IF(A1>10, "Yes", "No")	Returns one value if a condition is TRUE and another if FALSE.	IF(logical_test, value_if_true, value_if_false)
IFS	=IFS(A1=1, "One", A1=2, "Two", TRUE, "Other")	Checks if one or more conditions and returns the first TRUE result.	IFS(condition1, value1, condition2, value2, …)
IFNA	=IFNA(A1, "Not available")	Returns a specified value if the result is #N/A; otherwise, returns the original value.	IFNA(value, value_if_na)
COUNTIF	=COUNTIF(A1:A10, ">5")	Counts the number of cells that meet a single condition.	COUNTIF(range, criteria)
COUNTIFS	=COUNTIFS(A1:A10, ">5", B1:B10, "<10")	Counts the number of cells that meet multiple conditions.	COUNTIFS(range1, criteria1, range2, criteria2, …)
COUNT unique values	=SUM(1/COUNTIF(A1:A10, A1:A10))	Counts unique values in a range.	SUM(1/COUNTIF(range, range)) (array formula)
SUMIF	=SUMIF(A1:A10, ">5")	Sums the values in a range that meet a single condition.	SUMIF(range, criteria, [sum_range])
SUMIFS	=SUMIFS(A1:A10, B1:B10, ">5", C1:C10, "<10")	Sums the values in a range that meet multiple conditions.	SUMIFS(sum_range, criteria_range1, criteria1, …)
AVERAGEIF	=AVERAGEIF(A1:A10, ">5")	Returns the average of values in a range that meet a single condition.	AVERAGEIF(range, criteria, [average_range])
AVERAGEIFS	=AVERAGEIFS(A1:A10, B1:B10, ">5", C1:C10, "<10")	Returns the average of values in a range that meet multiple conditions.	AVERAGEIFS(average_range, criteria_range1, criteria1, …)
AND	=AND(A1>5, B1<10)	Returns TRUE if all conditions are TRUE.	AND(logical1, logical2, …)
NOT	=NOT(A1>5)	Reverses the logical value of its argument.	NOT(logical)
OR	=OR(A1>5, B1<10)	Returns TRUE if at least one condition is TRUE.	OR(logical1, logical2, …)
TRUE	=TRUE()	Returns the logical value TRUE.	TRUE()
FALSE	=FALSE()	Returns the logical value FALSE.	FALSE()

REFERENCE FUNCTIONS

Name	Example	Description	Syntax
VLOOKUP	=VLOOKUP(10, A2:B10, 2, FALSE)	Searches for a value in a column of a range and returns a value in the same row from another column.	VLOOKUP(lookup_value, table_array, col_index_num, [range_lookup])
HLOOKUP	=HLOOKUP(10, A1:J2, 2, FALSE)	Searches for a value in a row of a range and returns a value in the same column from another row.	HLOOKUP(lookup_value, table_array, row_index_num, [range_lookup])
CHOOSE	=CHOOSE(2, "Apple", "Banana", "Cherry")	Returns a value from a list based on an index number.	CHOOSE(index_num, value1, value2, …)
MATCH	=MATCH(50, A1:A10, 0)	Returns the position of a value in a range.	MATCH(lookup_value, lookup_array, [match_type])
INDEX	=INDEX(A1:C3, 2, 1)	Returns the value of a cell at a specified row and column within a range.	INDEX(array, row_num, [column_num])
INDIRECT	=INDIRECT("A1")	Returns the reference specified by a text string.	INDIRECT(ref_text, [a1])
TRANSPOSE	=TRANSPOSE(A1:B3)	Converts a vertical range of cells to a horizontal range, or vice versa.	TRANSPOSE(array)

TEXT FUNCTIONS

Name	Example	Description	Syntax
LEN	=LEN(A1)	Returns the number of characters in a text string, including spaces.	LEN(text)
MID	=MID(A1, 2, 3)	Extracts a substring from a text string.	MID(text, start_num, num_chars)
UPPER	=UPPER(A1)	Converts a text string to uppercase letters.	UPPER(text)
LOWER	=LOWER(A1)	Converts a text string to lowercase letters.	LOWER(text)
PROPER	=PROPER(A1)	Capitalizes the first letter of each word in a text string.	PROPER(text)
REPT	=REPT("A", 5)'	Repeats a text string a specified number of times.	REPT(text, number_times)
TEXTSPLIT	=TEXTSPLIT(A1, ",")'	Splits a text string into an array of substrings based on a delimiter.	TEXTSPLIT(text, delimiter)
CONCAT	=CONCAT(A1, " ", B1)'	Joins two or more text strings into one string.	CONCAT(text1, text2, …)
Combining by using &	="Hello" & A1 & "!"	Combines text using &.	"text" & cell