

How can I use the XLOOKUP function in Google Sheets?

Authored by
stats writer

June 29, 2024

RECOMMENDED CITATION

stats writer (2024). *How can I use the XLOOKUP function in Google Sheets?*.
PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=160307>

The XLOOKUP function in Google Sheets is a powerful tool that allows users to easily search for and retrieve data from a specific range in a spreadsheet. This function can be used in a variety of ways, such as finding the value of a specific cell, searching for data in multiple columns, and even performing approximate matches. By following the proper syntax and using the appropriate parameters, users can effectively utilize the XLOOKUP function to quickly and accurately extract data from their Google Sheets. This function is especially useful for organizing and analyzing large sets of data, making it an essential tool for efficient and effective spreadsheet management.

XLOOKUP function

The `XLOOKUP` function returns the values in the result range based on the position where a match was found in the lookup range. If no match is found, it returns the closest match.

XLOOKUP for BigQuery

Cross lookup. Returns the values in the data column at the position where a match was found in the search column.

Sample Usage

```
=XLOOKUP("Apple", table_name!fruit, table_name!price)
```

Syntax

```
XLOOKUP(search_key, lookup_range, result_range, missing_value, match_mode)
```

`search_key`: The value to search for. For example, 42, "Cats", or B24.
`search_column`: The column to consider for the search.
`result_column`: The column to consider for the result.
`missing_value`: The value to return if no match is found.
`match_mode`: The manner in which to find a match for the `search_key`.

0: For an exact match.
1: For an exact match or the next value that is greater than the `search_key`.
-1: For an exact match or the next value that is lesser than the `search_key`.
2: For a wildcard match.

Tip: `search_mode` isn't supported in XLOOKUP for BigQuery.

Sample Usage

```
XLOOKUP("Apple", A2:A, E2:E) to replace VLOOKUP("Apple", A2:E, 5, FALSE)  
XLOOKUP("Price", A1:E1, A6:E6) to replace HLOOKUP("Price", A1:E6, 6, FALSE)  
XLOOKUP where match column is to the right of the output column  
XLOOKUP("Apple",
```

E2:E7, A2:A7). The VLOOKUP equivalent is `VLOOKUP("Apple", {E2:E7, A2:A7}, 2, FALSE)`

Syntax

`XLOOKUP(search_key, lookup_range, result_range, missing_value, match_mode, search_mode)`
search_key: The value to search for. For example, 42, "Cats", or B24.
lookup_range: The range to consider for the search. This range must be a singular row or column.
result_range: The range to consider for the result. This range's row or column size should be the same as the `lookup_range`, depending on how the lookup is done.
missing_value: The value to return if no match is found.
match_mode: The manner in which to find a match for the `search_key`.

0 is for an exact match. 1 is for an exact match or the next value that is greater than the `search_key`. -1 is for an exact match or the next value that is lesser than the `search_key`. 2 is for a wildcard match.
search_mode: The manner in which to search through the `lookup_range`.

1 is to search from the first entry to the last. -1 is to search from the last entry to the first. 2 is to search through the range with binary search. The range needs to be sorted in ascending order first. -2 is to search through the range with binary search. The range needs to be sorted in descending order first.

Notes

If `result_range` is more than one row or column, then the output will be the entire row/column at the index a match was found in the `lookup_range`.

Examples

Lookup table for all examples.

	A	B	C	D	E
1	Item	Price	Amount sold	Total amount	Sales rep
2	Apple	\$0.35	36	\$12.60	Jim
3	Banana	\$0.25	22	\$5.50	Jim
4	Apple	\$0.45	26	\$11.70	Carolina
5	Orange	\$0.85	96	\$81.60	Chris
6	Banana	\$0.45	96	\$43.20	Sarah
7	Orange	\$0.80	37	\$29.60	Sarah

XLOOKUP for Total amount sold with `match_mode` and `search_mode` omitted and missing argument specified.

	A	B
1	Formula	Output
2	=XLOOKUP("Carolina", E1:E7, D1:D7)	\$11.70
3	=XLOOKUP("Jimmy", E1:E7, D1:D7, "Missing")	Missing

XLOOKUP for Total amount sold with `match_mode = 0` and `search_mode = 1` and `-1`.

	A	B
1	Formula	Output
2	=XLOOKUP("Sarah", E1:E7, D1:D7, "Missing",0,1)	\$43.20
3	=XLOOKUP("Sarah", E1:E7, D1:D7, "Missing",0,-1)	\$29.60

XLOOKUP for Total amount sold with `match_mode = 1` and `-1` and `search_mode` omitted.

	A	B
1	Formula	Output
2	=XLOOKUP("CBC", E1:E7, D1:D7, "Missing",1)	\$81.60
3	=XLOOKUP("CBC", E1:E7, D1:D7, "Missing",-1)	\$11.70

XLOOKUP using horizontal matching and returning an entire column.

	A	B
1	Formula	Output
2	=XLOOKUP("Price", A1:E1, A2:E7, "Missing")	\$0.35
3		\$0.25
4		\$0.45
5		\$0.85
6		\$0.45
7		\$0.80

Related functions

XMATCHVLOOKUPHLOOKUP