

The Excel XLOOKUP function is a powerful tool designed to look up a value in one range and return a corresponding value in another range — it supports approximate and exact matching, wildcards, regular expressions (regex), reverse searches, and lookups in vertical or horizontal ranges. XLOOKUP is a modern and flexible replacement for older functions like VLOOKUP, HLOOKUP, and LOOKUP.

Purpose:

Look up values in range or array

Return value:

Matching value in return array

Syntax:

=XLOOKUP(lookup,lookup_array,return_array,[if_not_found],[match_mode],[search_mode])

- lookup - The lookup value.
- lookup_array - The array or range to search.
- return_array - The array or range to return.
- if_not_found - [optional] Value to return if no match found.
- match_mode - [optional] 0 = exact match (default), -1 = exact match or next smallest, 1 = exact match or next larger, 2 = wildcard match, 3 = regex match.
- search_mode - [optional] 1 = search from first (default), -1 = search from last, 2 = binary search ascending, -2 = binary search descending.

XLOOKUP benefits:

- XLOOKUP can look up data to the right [or to the left](#) of lookup values
- XLOOKUP defaults to an exact match
- XLOOKUP can work with vertical and horizontal data
- XLOOKUP can perform a reverse search (last to first)
- XLOOKUP can return entire [rows or columns](#), not just one value

XLOOKUP is Excel's modern all-in-one lookup function. It lets you search a row or column for a value and retrieve the corresponding value from another range, without the frustrating limitations that plagued older functions like VLOOKUP, HLOOKUP, and LOOKUP. It can even return more than one corresponding value at the same time. With a straightforward syntax, XLOOKUP can be configured to support wildcards, regex, approximate-match, reverse, and high-speed binary searches. Key features include:

- The ability to look up values in vertical or horizontal ranges.
- Support for a default value when a lookup operation fails.
- Exact matching plus "next larger" and "next smaller" approximate matching.
- Simple "contains" type matching with native Excel wildcards (* ? ~).
- Complex pattern matching with "regex", a powerful text-matching language.
- A reverse search option to find the last matching value in a range.
- A super-fast binary search option when working with large datasets.

Notes

1. XLOOKUP can work with both vertical and horizontal arrays.
2. XLOOKUP will return #N/A if the lookup value is not found.
3. Like the [INDEX function](#), XLOOKUP returns a [reference as a result](#).
4. The size of the *lookup_array* must be compatible with the *return_array*, or XLOOKUP will return #VALUE!
5. If XLOOKUP points to an [Excel Table](#) in an *external workbook*, the other workbook must be open or XLOOKUP will return a #REF! error.