



What we have covered so far?

Unit 1: JavaScript – gave us the idea of the computational model

Unit 2: Excel – Spreadsheets

Unit 3: Visualization

MP5 Comments

Major question: Why do multiple movies have the same rank?

This is correct data. You need to answer your questions without editing the excel spreadsheet data.

Match Types

`=MATCH(lookup_value, lookup_array, [match_type])`

0: Exact match (linear search)

1: "Less than" match

- Finds the largest value less than or equal to `lookup_value`.
- `lookup_array` must be in **ascending** order.
- Uses binary search.

-1: "Greater than" match

- Finds the smallest value greater than or equal to `lookup_value`.
- `lookup_array` must be in **descending** order.
- Uses binary search.
- *Note:* VLOOKUP cannot do a greater-than match

Possible issues using `[match_type]`

0: Exact match will perform a linear search to find the quantity.

1: "Less than" match will require the data to be arranged in ascending order, which is why the largest number less than 90 will be 70, and hence return the row number as 7.



- Sample 2 fails when you use the `[match_type] = 1`
- Sample 3: Again data is not in ascending order; in fact, it is not sorted at all. Thus a `[match_type] = 1` will fail to produce the correct result.

The **IF** function

`=IF(logical_test, [value_if_true], [value_if_false])`