General Assembly

STUDY GUIDE

ORGANIZING DATA WITH FUNCTIONS

Functions are a calculation or action you want Excel to perform. When using functions, the syntax, or word order of a function, is critical.

- **Lookup_value**: The value with which you're searching.
- **Table_array**: The range you'd like to search, often referred to as the lookup table.
- **Col_ index_num**: The column that contains the result for which you're looking.
- **Range_lookup**: Asks whether the lookup_value has to be an exact match (0/FALSE) or an approximate match (1/TRUE).

VLOOKUP

- Often used to combine two data sets that share a common column.
- Syntax: =VLOOKUP(lookup_value, table_array, col_index_num, [range_lookup])
- Dragging the formula to the next few cells changes the lookup_value to the relative cell.
- VLOOKUP does not take column headings into account and can only be used in a list or table that's organized by vertical columns.

HLOOKUP

- HLOOKUP syntax: =HLOOKUP(lookup_value, table_array, row_index_num, [range_lookup])
- Scans horizontally through the first row in the lookup table.

INDEX MATCH

- INDEX MATCH is a combination of two separate functions: INDEX and MATCH.
- INDEX returns the value at a specified position within a designated array.
    - Syntax: =INDEX(array, row_num, column_num)
- MATCH returns the position of a matched value within your lookup_array.
    - MATCH syntax: =MATCH(lookup_value, lookup_array, match_type)

Advantages of INDEX MATCH

- Dynamic column reference.
- Ability to insert columns in your table array without distorting lookup results.
- Right-to-left lookup.
- No need to count in order to identify from which column to pull.
- One formula.