

## Tab: Table calculation and analytics & Operations on Dataset|Lecture

### Agenda

- Table Calculations
  - Compute Using
  - Table Calculation types
  - Quick Table Calculation
- Tableau Functions
- Tooltip
- Reference Line
- Trend Line
- Join
  - Geographic data type
  - Cross-database join
- Relationship
- Union
- Blend



## Table Calculation

↳ are a special type of calculated field within tables that apply transformation on values.

↳ Scope: boundaries within which a given table calculation can reference other values.

↳ Direction: how the table calculation moves within a scope.

Find percentage of total sales done across different categories for each quarter of the given year.

$$\Rightarrow 2017 \rightarrow Q1 \rightarrow \text{Furniture} = \underline{19.26\%}$$

### Business problem:

Find the sub-categories with above-average sales for each category and year.

$$M = \text{Sales} \rightarrow \text{above avg}$$
$$D = \text{sc} \mid c \mid y$$

**Business problem:**

Determine the year wise trend in sales.

**Business problem:**

Find the CO2 (kt) and CO2 per capita for each country and filter top 10 countries by CO2 (kt).

**Business problem:**

Identify the sub-categories that made the highest and lowest sales.

Relationship	Join
<ul style="list-style-type: none"> <li>→ Defined b/w logical tables</li> <li>→ Don't require to define a join type. (left)</li> <li>→ Rows are not duplicated</li> <li>→ Act like container for tables that are joined or union.</li> </ul>	<ul style="list-style-type: none"> <li>→ Defined between physical tables.</li> <li>→ Require join planning and join type</li> <li>→ Merged table can result in duplication</li> <li>→ Are merged into logical table.</li> </ul>

