Calculated Fields in Tableau

- Used to create new data from existing data.
- Acts like a **new column** in your data source.
- Created via: Analysis → Create Calculated Field.
- Written using formulas in the Calculated Field box.

3 Types of Calculations

1. Basic Calculations

- o Row-level or aggregate-level.
- o Examples: SUM, IF, YEAR, etc.

2. Level of Detail (LOD) Expressions

- o Controls granularity.
- Types:
 - FIXED: Ignores view's dimensions.
 - INCLUDE: Adds dimensions.
 - EXCLUDE: Omits dimensions.

3. Table Calculations

- o Performed on visualization-level data (post-filtered).
- Examples: RANK, RUNNING_SUM, PERCENT_DIFF.

Functions in Calculated Fields

Aggregate Functions

SUM, AVG, MIN, MAX, COUNT, COUNTD

Logical Functions

• IF, ELSEIF, AND, OR, CASE, ISNULL

Table Calculation Functions

• RANK, INDEX, LOOKUP(0/-1/1), WINDOW_SUM, RUNNING_SUM, TOTAL

String Functions

• CONTAINS, FIND, TRIM, LEFT, RIGHT, REPLACE

Date Functions

 DATE, DATEADD, DATEDIFF, NOW, TODAY, YEAR, MONTH, QUARTER, DATEPARSE, DATETRUNC, DATEPART, DATENAME

III Number Functions

• ZN, ROUND, ABS

★ LOD Expressions Explained

Type Description Example

FIXED Ignores view's dimensions {FIXED [Customer Name]: MAX([Order Date])}

INCLUDE Adds dimension to existing AVG({INCLUDE [Region]: SUM(Sales)})

EXCLUDE Omits dimension from view {EXCLUDE [Segment]: SUM(Sales)}

Table Calculations Overview

Used for:

- Running totals
- Moving averages
- Percent of total
- Difference & % Difference
- Ranking

Common Types

Type Formula

Difference From X-Y

% Difference From (X - Y) / Y

% From X/Y

% of Total X / Total(X)

Running Total Cumulative sum

Moving Average Rolling/window avg

+ Compute Using

- Across = Horizontal (row-wise)
- **Down** = Vertical (column-wise)
- Relative To

Used to compare to:

- Previous
- Next
- First
- Last
- (More options under Specific Dimensions)

∮ Quick Tip

• Right-click on a measure (e.g. SUM(Sales)) → **Quick Table Calculation** → Select desired operation (e.g., Running Total, Percent of Total).