

# Quick Table Calculations and Parameters.

**Sleeper Ch. 13, 14**

# Agenda

## Quick Table Calculations:

1. Running Total Numeric View
2. Month-Over-Month Difference in Sales DataViz

Tableau comes with several preset calculations that you can compute with the numbers on a view, including **running total, difference, percent difference, percent of total, moving average**, and more.

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# Start By Creating the Following Data View:

Monthly Sales by Category:

Pages

Columns

Category

Rows

MONTH(Order Date)

Filters

Marks

Automatic

Color

Size

Text

Detail

Tooltip

SUM(Sales)

	Furniture	Office Supplies	Technology
January	\$31,279	\$33,663	\$30,424
February	\$16,057	\$20,513	\$23,343
March	\$50,144	\$56,264	\$93,104
April	\$40,879	\$49,275	\$51,697
May	\$48,586	\$43,394	\$64,142
June	\$49,850	\$49,800	\$47,433
July	\$51,577	\$43,217	\$54,787
August	\$45,488	\$62,307	\$51,795
September	\$106,426	\$102,774	\$100,570

# Add the Running Total Quick Table Calculation

## Update from Sum(Sales) to Sales Running Total

- Right-click the **Sum(Sales)** pill from the **Text Marks Card** > **Quick Table Calculation** > **Running Total**

## Change from left to right table calculations to top-down:

- Right-click the **Sum(Sales)** pill from the **Text Marks Card** > **Compute Using** > **Table Down**

# DataViz: Month-Over-Month Difference in Sales

Create a line chart:

- Columns: **Month(Order Date)**
- Rows: **Sum(Sales)**

Add a second row to your Viz:

- Drag a second **Sum(Sales)** dimension to the **Rows** shelf
- Right-click the pill > **Quick Table Calculation** > **Difference**

# DataViz: Month-Over-Month Difference in Sales (Cont.)

Find a set of Marks Cards for the 2nd Row.

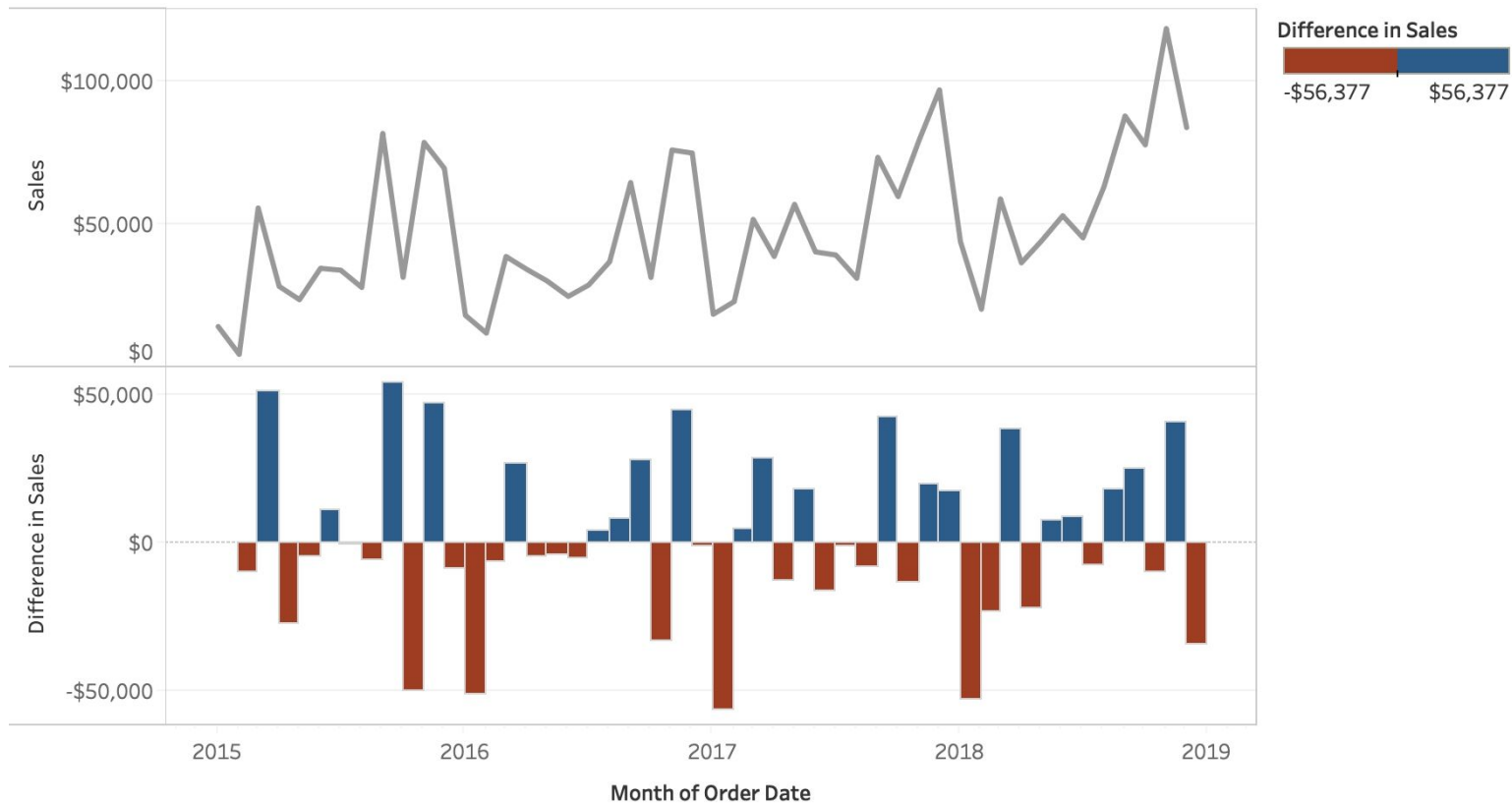
**Switch from a line to a bar chart:**

- Marks Card Type: Bar

**Utilize two solid colors for the bar chart:**

- Color Marks Card: **Sum(Sales)**; Right-click the pill > **Quick Table Calculation** > **Difference**
- Click on the **Color** Marks Card > **Edit Colors...** > Check **Stepped Color 2 Steps**

## Month-Over-Month Difference in Sales



The trends of sum of Sales and Difference in Sales for Order Date Month. For pane Difference in Sales: Color shows Difference in Sales.



**Parameters** are user-generated values that are not attached to a dataset.

We are going to create a simple equation for 2 multiplied by X, where X is the parameter, and **the end user gets to choose the value of X.**


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## 2 \* X Overview:

1. Create a Parameter: an integer from *1* to *20*
2. Create a Calculated Field:  $\min(2) * \langle \text{Parameter value} \rangle$
3. Display the Calculated Field on the view
4. Allow the end user to enter the Parameter value

# 1. Create a Parameter

To create a new parameter in Tableau:

- (a) click on the down arrow  in the top-right corner of the Dimensions area of the Data pane > **Create Parameter...**
- (b) right-click blank space on the Data pane Shelf > **Create Parameter...**

Create Parameter ✕

Name:  Comment >>

Properties

Data type:

Current value:

Display format:

Allowable values: ☐ All ☐ List ☒ Range

Range of values

☒ Minimum:  Set from Parameter ▶

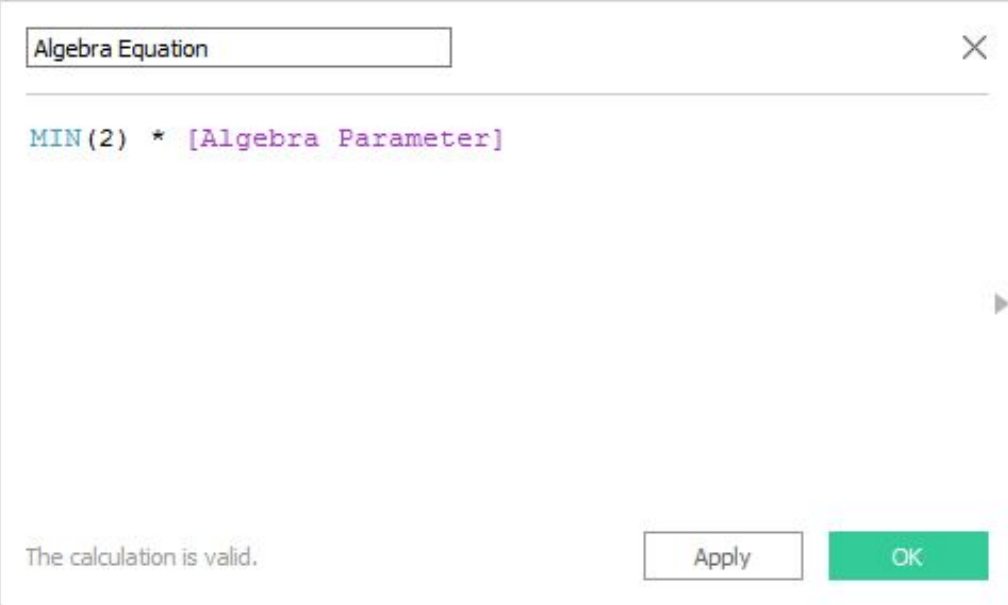
☒ Maximum:  Set from Field ▶

☒ Step size:

OK Cancel

## 2. Create a Calculated Field

$2 * [\textit{Algebra Parameter}]$  calculation would get an answer of 19,988, which is 2 multiplied by 1, multiplied by the number of records in the dataset (9,994).



The screenshot shows a dialog box titled "Algebra Equation" with a close button (X) in the top right corner. The main text area contains the formula `MIN(2) * [Algebra Parameter]`. At the bottom left, a status message reads "The calculation is valid." At the bottom right, there are two buttons: "Apply" and "OK".

### 3. Display the Calculated Field:

- Text Cards Mark: **AGG(Algebra Equation)**

Calculated Field

40

### 4. Allow the end user to enter the value:

- Right-click the **Algebra Parameter** > **Show Parameter Control**

Algebra Parameter

20

Pages

Filters

Marks

T Automatic

Color

Size

T Text

Detail

Tooltip

T AGG(Algebra Equation)

Algebra Parameter

7

Columns

Rows

14

<https://learning.oreilly.com/library/view/practical-tableau/9781491977309/ch14.html>