

# Learning to Round Numbers to Two Decimal Places in Power BI

Authored by  
**Mohammed loot**

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## Introduction: The Importance of Precision and Presentation in Power BI

In the world of business intelligence (BI), data accuracy is paramount, but clarity of presentation runs a close second. When working with numerical data in tools like [Power BI](#), raw figures often contain numerous decimal places that are unnecessary for reporting and can clutter visual dashboards. Rounding these values to a manageable number--typically two decimal places--is essential for improving readability and ensuring reports are easily digestible by stakeholders. This guide explores the two principal methods available in Power BI for achieving this goal: utilizing the built-in formatting options via the Column tools, and employing the powerful

[DAX](#) (Data Analysis Expressions)

[ROUND function](#). Understanding the difference between these approaches--visual formatting versus explicit calculation--is key to maintaining data integrity and generating accurate aggregated results.

Before diving into the practical steps, it is vital to acknowledge that the choice of method depends entirely on the intended outcome. If the goal is purely aesthetic--that is, to display fewer decimals on a report while retaining the high precision of the underlying data for future calculations--the Column tools method is suitable. Conversely, if the rounded value needs to be treated as a definitive numerical input for subsequent mathematical operations, then creating a new

[calculated column](#)

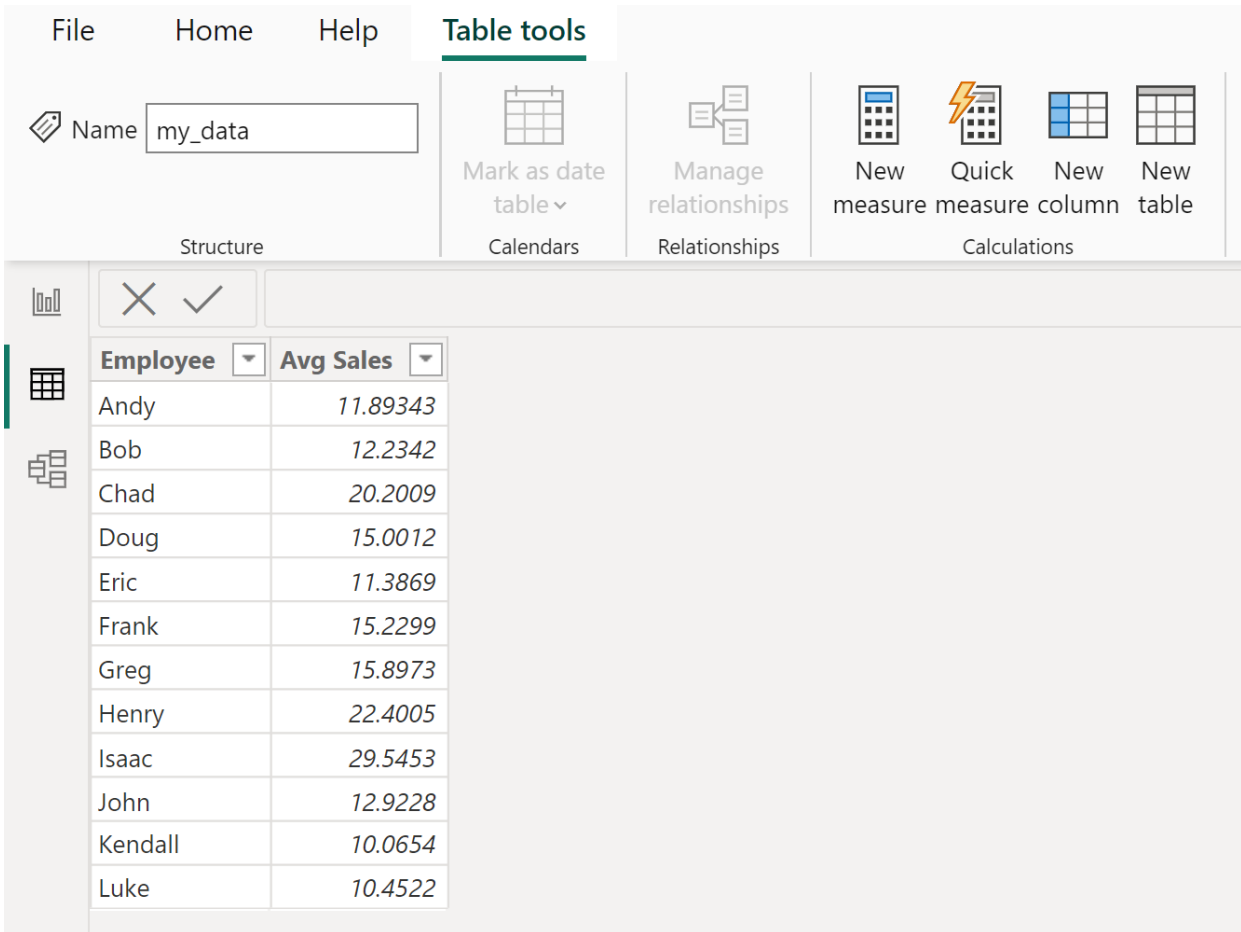
or measure using DAX is the required approach. We will illustrate both techniques using a standard dataset containing sales figures with varying degrees of precision.

The following methods provide solutions for rounding values to two decimal places in Power BI:

**Method 1: Use the Decimal Places Feature in Column Tools.** This method is primarily for visual presentation.

**Method 2: Use the [ROUND function](#) in DAX.** This method creates a new, mathematically adjusted column.

For demonstration purposes, consider the following sample table within the Power BI environment, which contains an "Avg Sales" column with figures that require normalization:



The screenshot shows the Power BI interface with the 'Table tools' ribbon selected. The 'Structure' section shows a table named 'my\_data' with two columns: 'Employee' and 'Avg Sales'. The 'Calculations' section is visible, showing options for 'New measure', 'Quick measure', 'New column', and 'New table'.

Employee	Avg Sales
Andy	11.89343
Bob	12.2342
Chad	20.2009
Doug	15.0012
Eric	11.3869
Frank	15.2299
Greg	15.8973
Henry	22.4005
Isaac	29.5453
John	12.9228
Kendall	10.0654
Luke	10.4522

## Method 1: Visual Formatting Using Column Tools

The simplest and fastest way to adjust the appearance of numbers in a report is by leveraging the settings found within the **Column tools** interface. This approach is non-destructive; it does not alter the actual value stored in the data model. Instead, it applies a formatting mask that dictates how the number is displayed across all visualizations utilizing that field. This is the preferred method when precision must be maintained for complex background calculations, but the end-user report requires a clean, truncated view.

When you apply formatting through the Column tools, Power BI handles the display rules automatically. You are essentially telling the visualization engine, "Show me this number using only two digits after the decimal point." It is crucial to remember that any measure performing calculations on this column will still utilize the full, unrounded, high-precision figure. This distinction is vital for avoiding subtle errors in aggregation where small rounding differences, when summed across thousands of rows, can lead to significant discrepancies.

This method is particularly useful for quickly cleaning up data fields that are imported with excessive precision, such as currency or standardized measurement units, where displaying more

than two decimal places offers no practical value to the business user analyzing the report.

## Step-by-Step Implementation: Column Tools Formatting

To visually round the values in a specific column, such as "Avg Sales," follow these straightforward steps within the Power BI desktop environment, typically performed in the Report View or Data View:

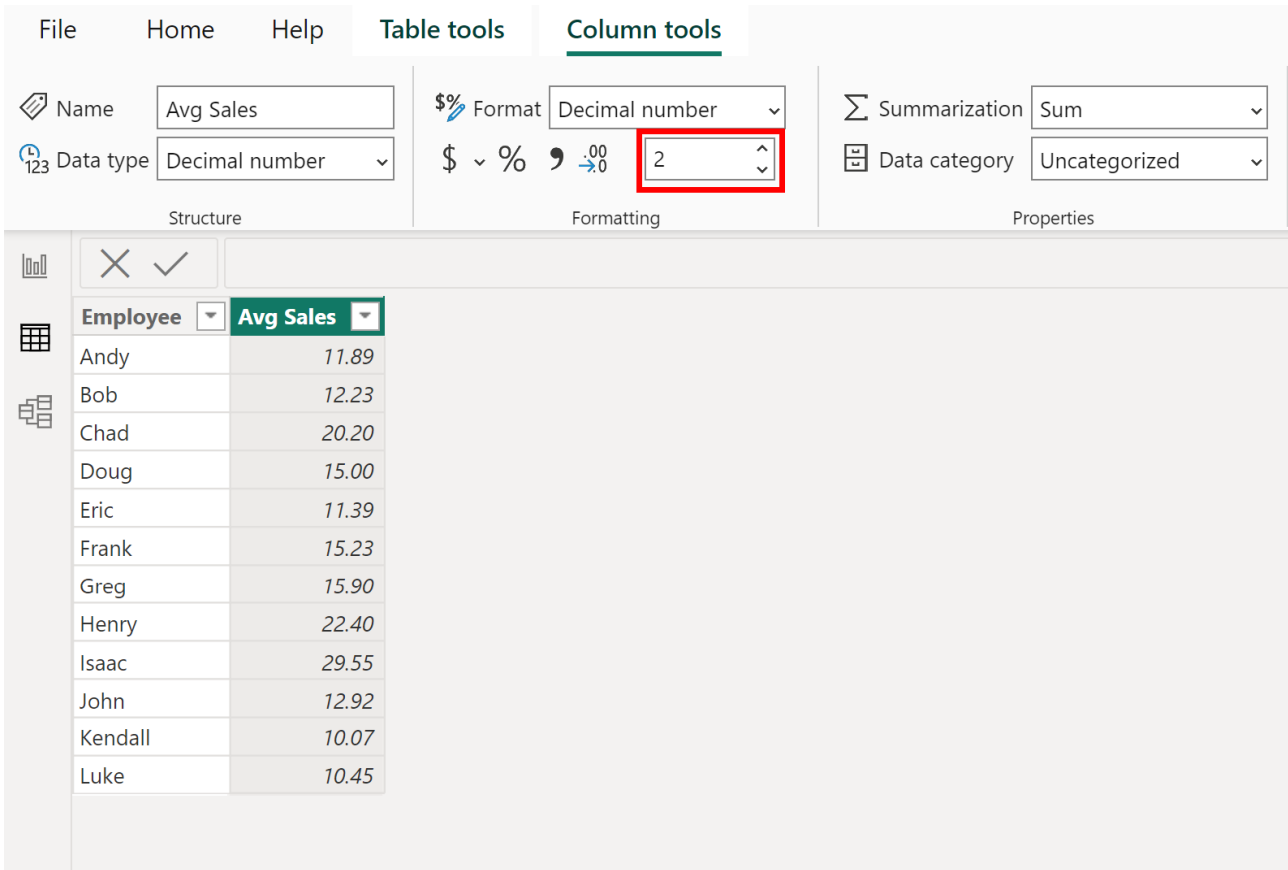
First, navigate to the **Fields pane** and click on the desired column name (e.g., "Avg Sales") to select it. This action activates the contextual tools relevant to that column.

Next, look towards the ribbon at the top of the interface and click the **Column tools** tab. This tab contains various options for defining the properties and formatting of the selected column.

Within the **Formatting** group of the Column tools, locate the **decimal places** box. This input field allows you to specify the exact number of digits that should appear after the decimal point for display purposes.

Finally, type the value **2** into the **decimal places** box. Pressing Enter or clicking elsewhere will instantly apply this formatting change across your entire report.

The visual impact of this action is immediately noticeable in the data table or any associated visuals, as illustrated below. The values in the "Avg Sales" column are now consistently displayed with two decimal places, significantly enhancing the professional appearance of the data presentation:



The screenshot shows the Power BI interface with the 'Column tools' ribbon selected. The 'Format' dropdown is set to 'Decimal number', and the 'Decimal places' spinner is set to '2'. Below the ribbon, a table shows the 'Avg Sales' column with values rounded to two decimal places.

Employee	Avg Sales
Andy	11.89
Bob	12.23
Chad	20.20
Doug	15.00
Eric	11.39
Frank	15.23
Greg	15.90
Henry	22.40
Isaac	29.55
John	12.92
Kendall	10.07
Luke	10.45

Observe that each value in the **Avg Sales** column is now visually rounded to 2 decimal places. For instance, data points that previously had greater precision are simplified for the user:

11.89343 has been rounded visually to **11.89**.

12.2342 has been rounded visually to **12.23**.

20.2009 has been rounded visually to **20.20**.

## Method 2: Creating Calculated Values Using DAX's ROUND Function

While visual formatting is powerful for presentation, there are many scenarios in data modeling where you require the calculated, rounded figure to be the source of truth for downstream analysis. For example, if you are calculating commissions based on sales and those commissions must be based on rounded dollar amounts, you must use a functional approach that mathematically alters the data. This is where the

[DAX](#)

[ROUND function](#)

becomes indispensable. The ROUND function creates a new column (a **calculated column**) or a **measure** where the output value is explicitly rounded, ensuring that subsequent calculations

operate on the adjusted number.

The syntax for the DAX ROUND function is simple yet effective:

`ROUND(<expression>, <num_digits>)`. The `<expression>` is the numeric value or column you wish to round, and `<num_digits>` specifies the number of decimal places to include in the result. By creating a new column, you are not overwriting the original raw data; instead, you are generating a derived field that lives alongside the original data, providing maximum flexibility for complex modeling.

Utilizing DAX for rounding is a fundamental practice in building robust and reliable data models. It guarantees that regardless of the visualization chosen or the default formatting applied by Power BI, the underlying mathematical operation is based on the specific rounding rules defined in the formula. This eliminates the ambiguity associated with visual rounding and is critical for ensuring auditability and consistency across sophisticated reports.

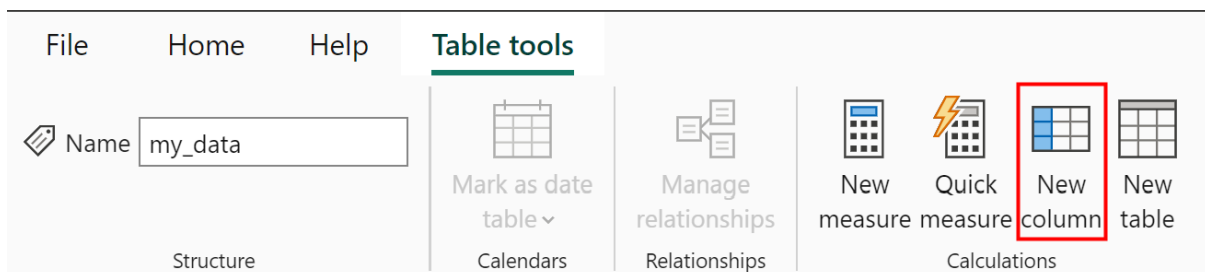
## Step-by-Step Implementation: Utilizing the DAX ROUND Function

To implement the DAX ROUND function, we will create a new calculated column in the existing table. This process requires navigating to the modeling tools and entering the appropriate formula:

First, ensure you are in the **Data View** or the **Report View** where your table is visible. Click the **Table tools** tab along the top of the Power BI ribbon.

Next, in the **Calculations** group, click the **New column** button. This action opens the formula bar, prompting you to define the calculation for the new field.

Then, type the following formula into the formula bar. This expression names the new column "Avg Sales Rounded" and applies the ROUND function to the values in the original 'my\_data' column, specifying 2 decimal places:



The exact formula to input is:

**Avg Sales Rounded = ROUND('my\_data', 2)**

Executing this formula generates a new column named **Avg Sales Rounded** that contains the mathematically rounded value for each row. This column is now ready for use in any aggregation or visualization, guaranteeing that all subsequent calculations use the rounded figures.

This resulting table clearly shows the new column containing the explicitly calculated and rounded values:

The screenshot shows the Power BI interface with the 'Table tools' and 'Column tools' tabs active. The formula bar contains the DAX formula: `1 Avg Sales Rounded = ROUND('my_data'[Avg Sales], 2)`. Below the formula bar, a table is displayed with three columns: 'Employee', 'Avg Sales', and 'Avg Sales Rounded'. The 'Avg Sales Rounded' column shows the result of rounding the 'Avg Sales' values to two decimal places.

Employee	Avg Sales	Avg Sales Rounded
Andy	11.8934	11.89
Bob	12.2342	12.23
Chad	20.2009	20.2
Doug	15.0012	15
Eric	11.3869	11.39
Frank	15.2299	15.23
Greg	15.8973	15.9
Henry	22.4005	22.4
Isaac	29.5453	29.55
John	12.9228	12.92
Kendall	10.0654	10.07
Luke	10.4522	10.45

It is important to note a key characteristic of the DAX ROUND function and Power BI's default numerical formatting: If any of the rounded values end precisely in zero, the trailing zeros may not be automatically displayed unless specific format strings (like Currency or Percentage) are applied to the new column. For example, the original value **15.0012** is mathematically rounded to **15.00**, but Power BI may display this simply as **15**. If the display of the trailing zeros is mandatory for financial reports, ensure you manually adjust the format string of the new calculated column (using the Column tools mentioned in Method 1) to a format like "0.00."

## Understanding the Critical Difference: Formatting vs. Calculation

A core concept that differentiates these two methods is the context in which the rounding occurs. Method 1 (Column Tools) applies rounding at the presentation layer, affecting only how the data is

rendered to the user. The original, full-precision data remains intact in the data model. This approach is efficient and useful for quick visual cleanup, but it offers no mathematical change to the data set itself. For instance, if you were to sum the visually rounded column, the resulting total would still be based on the unrounded, precise numbers.

In contrast, Method 2 (DAX [ROUND function](#)) operates at the data model layer, creating a new, distinct numerical field. The values in this new column are permanently rounded. If you sum this new "Avg Sales Rounded" column, the total aggregation will be based on the sum of the rounded individual values, which will likely differ slightly from the sum of the original, unrounded column. Analysts must choose carefully, as using the wrong method can lead to reports that are visually appealing but mathematically inconsistent with underlying financial systems.

The decision matrix is simple: If you need the rounded value to be used in further complex calculations, use the DAX ROUND function. If you only need a cleaner look for dashboard reporting and the underlying calculations must maintain maximum precision, use the Column Tools formatting. Mastering this distinction elevates data reporting from merely displaying numbers to providing accurate, reliable business intelligence.

## Additional Resources for Data Modeling in Power BI

To further enhance your skills in data preparation and modeling within the Power BI ecosystem, exploring other common

[DAX](#)

functions and data transformation techniques is highly recommended. The following concepts are fundamental to professional Power BI development:

Understanding explicit versus implicit measures.

Mastering data type conversion (especially between text, numbers, and dates).

Utilizing other rounding functions, such as `ROUNDUP` and `ROUNDDOWN`, which offer specific control over the rounding direction.

These tutorials explain how to perform other common tasks in Power BI: