## ADD THE FOLLOWING AS MEASURES

## TOPN – Top N Customers by Sales

Why use TOPN?

* Filters the top N rows based on a measure.
* Can be used in visuals to show top performers.
* Useful in competitive ranking and dashboard KPIs.

### Measure:

Top 3 Customers Sales =

CALCULATE(

    [Net Sales],

    KEEPFILTERS(

        TOPN(

            3,

            ADDCOLUMNS(

                VALUES(SalesData[Customer]),

                "CustomerSales", [Net Sales]

            ),

            [CustomerSales],

            DESC

        )

    )

)

Use a Table Visual with a Top N Filter

1. Add a **Table Visual**.
2. Add:  
   * Customer (SalesData[Customer])
   * [Net Sales] measure
3. In the **Filters pane** for the visual:  
   * Drag Customer into the filter area.
   * Choose **Top N** filter.
   * Set to **Top 3** by [Net Sales].
   * Apply the filter.

### Explanation:

* TOPN(3, VALUES(SalesData[Customer]), [Net Sales], DESC) returns the top 3 customers by sales.
* CALCULATE evaluates [Net Sales] *only for* those top 3 customers.

Use a **bar chart** and drag Customer to Axis, Top 3 Customers Sales as Values.

Point out how other customers show blank or zero, only top 5 appear.

### Bonus Exercise: Top N Dynamic Measure

Let user control N using a slicer:

Top N Customers (Dynamic) =

CALCULATE(

[Net Sales],

TOPN(

SELECTEDVALUE(TopN[Value], 5),

VALUES(SalesData[Customer]),

[Net Sales],

DESC

)

)

Create a new table TopN with values 3, 5, 10, etc., and connect it to a slicer.

## RANKX – Customer Rank by Sales

### Formula:

Customer Rank =

RANKX(

ALL(SalesData[Customer]),

[Net Sales],

,

DESC

)

### Explanation:

* Ranks each customer based on [Net Sales].
* ALL removes filters so it ranks across the entire dataset.

Use a table with Customer, Net Sales, and Customer Rank.

Discuss ties, how blank values are treated.

### Bonus Exercise: Rank within Region

Customer Rank in Region =

RANKX(

FILTER(

ALL(SalesData),

SalesData[Region] = MAX(SalesData[Region])

),

[Net Sales],

,

DESC

)

This shows customer rank within their region (useful for region-wise performance dashboards).

## 3. CALCULATETABLE – Filter & Create Virtual Table

Use this when you want to create a table instead of a scalar value.

High Discount Orders Table (Discount > 20%)

Why use CALCULATETABLE?

* - Use this to return a filtered \*table\* instead of a number.
* - Often used inside COUNTROWS, SUMX, etc.
* - Helpful for analyzing a subsegment of your data.

Go to:

**Modeling tab → New Table**, and paste:

### Formula:

HighDiscountOrders = CALCULATETABLE(

SalesData,

SalesData[Discount] > 0.2

)

### Explanation:

* Returns a filtered **table** (not a number).
* Can be used inside COUNTROWS, SUMX, etc.

**Difference: CALCULATE gives a scalar, CALCULATETABLE gives a table.**

--this table can be used in cards or KPIs.

### Bonus Exercise: Total Revenue from High Discount Orders

High Discount Revenue =

SUMX(

CALCULATETABLE(

SalesData,

SalesData[Discount] > 0.2

),

SalesData[Net Sales]

)

## 4. SELECTEDVALUE – Get Single Value from Slicer

Used to get the current selection from a slicer or single-value context.

Selected Region

Why use SELECTEDVALUE?

* - Used with slicers to get the selected value.
* - Returns a default if multiple or no selection is made.
* - Ideal for dynamic titles and cards.

Returns the selected region name from a slicer. If nothing or multiple are selected, it returns "Not Selected".

### Formula:

Selected Region =

SELECTEDVALUE(SalesData[Region], "Not Selected")

### Explanation:

* Returns single selected Region, otherwise fallback value.
* Perfect for dynamic titles or cards.

Create a title using:

"Sales Report for " & [Selected Region]

### Bonus Exercise: Show Products Sold in Selected Region

Sales in Selected Region =

CALCULATE(

[Net Sales],

FILTER(

SalesData,

SalesData[Region] = SELECTEDVALUE(SalesData[Region])

)

)