10 DAX Functions in Power BI

Every Analyst Should Master

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1. CALCULATE()

What it does: Changes or overrides filters to calculate a new result.

Example:

```
Sales_2024 = CALCULATE
(
    SUM(Sales[Amount]),
    YEAR(Sales[Date]) = 2024
)
```

2. FILTER()

What it does: Returns a filtered version of a table.

Example:

```
High_Value_Sales =
FILTER
(Sales, Sales[Amount] > 1000)
```

3. SUMX()

What it does: Iterates row-by-row, then sums the result.

Example:

```
Total_Revenue =
SUMX(
    Sales,
    Sales[Quantity] *
Sales[Price]
)
```

4. RELATED()

What it does: Fetches a value from a related table (one-to-many direction).

Example:

```
Category =
RELATED(Products[Category])
```

5. CALENDAR()

What it does: Creates a date table between two dates.

Example:

```
DateTable =
CALENDAR(DATE(2020,1,1),
DATE(2025,12,31))
```

6. DISTINCT()

What it does: Returns a table with unique values.

Example:

```
Unique_Customers =
DISTINCT(Sales[CustomerID])
```

7. ALL()

What it does: Removes filters from a table or column.

Example:

```
Percent_of_Total =
DIVIDE(
    SUM(Sales[Amount]),
    CALCULATE(SUM(Sales[Amount]),
ALL(Sales))
)
```

8. VAR() / RETURN

What it does: Stores intermediate results to make DAX cleaner.

Example:

```
Profit_Margin =
VAR Revenue = SUM(Sales[Revenue])
VAR Cost = SUM(Sales[Cost])
RETURN
DIVIDE(Revenue - Cost, Revenue)
```

9. DIVIDE()

What it does: Safe division (avoids divide-by-zero errors).

Example:

```
Units_Per_Order =
DIVIDE(
    SUM(Sales[Units]),
    DISTINCTCOUNT(Sales[OrderID])
)
```

10. IF()

What it does: Basic conditional logic.

Example:

```
Order_Type =
IF(Sales[Amount] > 5000, "High
Value", "Low Value")
```

Follow for more content on

- Excel
- Power BI
- SQL
- Python

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