

DAX functions

dataset: Sales

TransactionID	Date	Product	Category	Amount	Year
1	2024-01-10	Laptop	Electronics	1200	2024
2	2024-01-15	Mouse	Accessories	25	2024
3	2024-02-01	Phone	Electronics	800	2024
4	2024-02-05	USB Cable	Accessories	10	2024
5	2024-03-12	Monitor	Electronics	250	2024
6	2024-03-18	Desk Chair	Furniture	150	2024
7	2023-11-20	Laptop	Electronics	1100	2023
8	2023-12-05	Headphones	Accessories	75	2023
9	2023-12-20	Phone	Electronics	750	2023
10	2023-12-25	Table	Furniture	300	2023

1. Total Sales for a Specific Year

Total Sales 2024 =

```
CALCULATE(  
    SUM(Sales[Amount]),  
    Sales[Year] = 2024  
)
```

Uses SUM and CALCULATE to get total sales for 2024.

2. Average Sales for Each Product Category

Average Sales by Category :=

```
CALCULATE(  
    AVERAGE(Sales[Amount]),  
    ALLEXCEPT(Sales, Sales[Category])  
)
```

Shows the average sales for each category, keeping the category filter only.

3. Count of Large Sales Transactions (above 10,000)

High Value Transactions :=

```
CALCULATE(  
    COUNTROWS(Sales),  
    Sales[Amount] > 10000  
)
```

Counts how many transactions are above 10,000.

4. Flag Products with Low Sales

Low Sales Flag :=

```
IF(SUM(Sales[Amount]) < 5000, "Low", "OK")
```

Labels products with total sales under 5,000 as “Low”.

5. Sales as a Percentage of Total

% of Total Sales :=

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

Tells how much a specific item contributes to total sales.

6. Rolling Average Sales (Last 3 Months)

Rolling Avg (3 Months) :=

```
AVERAGEX(  
    DATESINPERIOD('Date'[Date], MAX('Date'[Date]), -3, MONTH),  
    CALCULATE(SUM(Sales[Amount]))  
)
```

Smooths out fluctuations by averaging over the last 3 months.

7. Sales Difference Between This Month and Last Month

Sales Last Month :=

```
CALCULATE(  
    SUM(Sales[Amount]),  
    PARALLELPERIOD('Date'[Date], -1, MONTH)  
)
```

Sales Change :=

```
SUM(Sales[Amount]) - [Sales Last Month]
```

8. IF

Sales Status :=

```
IF(SUM(Sales[Amount]) > 1000, "High", "Low")
```

9. DATEADD + CALCULATE (for comparing across time periods)

CALCULATE(<expression>, DATEADD(Date[Date], <number>, <interval>))

- number: Positive for future, negative for past
 - interval: "DAY", "MONTH", "QUARTER", or "YEAR"
-

Example: Compare This Month vs. Last Month

Sales Last Month :=

```
CALCULATE(  
    SUM(Sales[Amount]),  
    DATEADD('Date'[Date], -1, MONTH)  
)
```

Calculates the total sales for **last month**, compared to the current context.

Example: Compare This Year vs. Previous Year

Sales Last Year :=

```
CALCULATE(  
    SUM(Sales[Amount]),  
    DATEADD('Date'[Date], -1, YEAR)  
)
```