DAX For filter context

The Dataset: "Global Tech Sales"

This dataset contains 65 rows and 12 columns, representing sales transactions for a fictional tech company.

Table Name: `Sales`

Columns:

1. `OrderID`: A unique identifier for each order line item.
2. `OrderDate`: The date the order was placed.
3. `CustomerID`: Unique ID for the customer.
4. `CustomerName`: Name of the customer.
5. `CustomerSegment`: Business segment (e.g., Corporate, Consumer, Home Office).
6. `Country`: Country where the sale occurred.
7. `ProductID`: Unique ID for the product.
8. `ProductCategory`: High-level product category (e.g., Computers, Peripherals, Software).
9. `ProductSubCategory`: Specific product type (e.g., Laptops, Monitors, Antivirus).
10. `UnitPrice`: The price of a single unit.
11. `Quantity`: The number of units sold.
12. `Discount`: The discount percentage applied to the line item.

Pre calculations

```
Total Sales =
SUMX(
    Sales,
    Sales[Quantity] * Sales[UnitPrice] * (1 - Sales[Discount])
)

Total Quantity = SUM(Sales[Quantity])
```

Part 1: Simple Filters on a Single Column

1. What are the total sales generated in the USA?
2. What is the total quantity of products sold in the 'Computers' category?
3. How many sales transactions (order lines) were for the 'Corporate' customer segment?

Part 2: Using the IN Operator for Multiple Selections

1. What are the total sales for the USA and Canada combined?
2. What is the total quantity sold for 'Laptops' and 'Tablets'?
3. What are the total sales for the 'Consumer' and 'Home Office' segments?

Part 3: Using FILTER with Numeric Conditions

1. How many sales transactions involved a quantity greater than 5?
2. What are the total sales from products with a Unit Price over $1,000?
3. How many transactions had a discount applied (i.e., discount is greater than 0)?
4. What are the total sales from orders with a discount of 15% or more?

Part 4: Using FILTER with Range and Multiple Conditions

1. How many transactions had a quantity between 3 and 5 units (inclusive)?
2. What are the total sales for items with a Unit Price between $50 and $100?
3. What were the total sales of 'Laptops' in the USA?
4. What is the total quantity of 'Keyboards' sold to 'Corporate' customers?
5. How many sales transactions were for the 'Software' category in Canada?

Part 5: Using FILTER with Functions

1. What were the total sales in the year 2022?
2. What were the total sales from customers whose name starts with the letter 'J'?
3. How many transactions occurred in the first half of any month (day 1 to 15)?
4. What are the total sales for the customer 'John Smith'?
5. What were the total sales of 'Computers' in Germany to 'Corporate' customers?