**🧮 STEP 4: Add DAX Measures**

**In the Orders table, add the following measures:**

**📌 Total Sales**

**DAX**

**CopyEdit**

**Total Sales = SUMX(Orders, Orders[Quantity] \* RELATED(Books[Price]))**

**📌 Total Orders**

**DAX**

**CopyEdit**

**Total Orders = COUNTROWS(Orders)**

**📌 Total Customers**

**DAX**

**CopyEdit**

**Total Customers = DISTINCTCOUNT(Orders[Customer\_ID])**

**📌 Average Order Value**

**DAX**

**CopyEdit**

**Average Order Value = DIVIDE([Total Sales], [Total Orders])**

**--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------**

**🕒 Time Intelligence Measures**

**2. Sales Year-to-Date (YTD)**

DAX

CopyEdit

Sales YTD =

CALCULATE(

[Total Sales],

DATESYTD(orders[order\_date])

)

**3. Sales Month-to-Date (MTD)**

DAX

CopyEdit

Sales MTD =

CALCULATE(

[Total Sales],

DATESMTD('Date'[Date])

)

**4. Sales Quarter-to-Date (QTD)**

DAX

CopyEdit

Sales QTD =

CALCULATE(

[Total Sales],

DATESQTD('Date'[Date])

)

**🔁 Comparison Measures**

**5. Sales Previous Year**

DAX

CopyEdit

Sales PY =

CALCULATE(

[Total Sales],

SAMEPERIODLASTYEAR(orders[order\_date])

)

**6. Sales Growth YoY (%)**

DAX

CopyEdit

Sales Growth YoY % =

DIVIDE([Total Sales] - [Sales PY], [Sales PY])

**📆 Optional Time-Based Filters**

**7. Last 30 Days Sales**

DAX

CopyEdit

Sales Last 30 Days =

CALCULATE(

    [Total Sales],

    DATESINPERIOD(

        Orders[Order\_Date],

        MAX(Orders[Order\_Date]),

        -30,

        DAY

    )

)

**8. Sales This Month**

DAX

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Sales this Month = FILTER(ALL(Orders),MONTH(Orders[Order\_Date])=MONTH(TODAY()) && YEAR(Orders[Order\_Date])=YEAR(TODAY()))

✅ **Note**: Ensure you have a Date table created using:

DAX

CopyEdit

Date = CALENDAR(MIN(Orders[Order\_Date]), MAX(Orders[Order\_Date]))

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**📅 Add Calculated Columns to Date Table**

**Go to the Date table in Power BI → click "New Column" and add each of these:**

**✅ 1. Year**

**DAX**

**CopyEdit**

**Year = YEAR('Date'[Date])**

**✅ 2. Month Number**

**DAX**

**CopyEdit**

**Month Number = MONTH('Date'[Date])**

**✅ 3. Month Name**

**DAX**

**CopyEdit**

**Month Name = FORMAT('Date'[Date], "MMMM")**

**✅ 4. Month-Year (for charts/slicers)**

**DAX**

**CopyEdit**

**Month-Year = FORMAT('Date'[Date], "MMM YYYY")**

**✅ 5. Quarter**

**DAX**

**CopyEdit**

**Quarter = "Q" & FORMAT('Date'[Date], "Q")**

**✅ 6. Day of Month**

**DAX**

**CopyEdit**

**Day = DAY('Date'[Date])**

**✅ 7. Day Name (Weekday)**

**DAX**

**CopyEdit**

**Day Name = FORMAT('Date'[Date], "dddd")**

**✅ 8. Is Weekend**

**DAX**

**CopyEdit**

**Is Weekend = IF(WEEKDAY('Date'[Date], 2) > 5, TRUE, FALSE)**

**✅ 9. Week Number**

**DAX**

**CopyEdit**

**Week Number = WEEKNUM('Date'[Date], 2)**