1. **DAX** — Data Analysis Expressions (formula language for Power BI, Excel, SSAS).
2. **Sum of Sales:**

Total Sales = SUM('Sheet1'[Sales])

1. **Difference:**

* Calculated Column → row by row, stored in the table.
* Measure → calculated dynamically, depends on filters.

1. **Profit Margin:**

Profit Margin = DIVIDE(SUM('Sheet1'[Sales]) - SUM('Sheet1'[Cost]), SUM('Sheet1'[Sales]))

1. **COUNTROWS()** — returns the number of rows in a table (or filtered table).
2. **Total Profit:**

Total Profit = SUM('Sheet1'[Sales]) - SUM('Sheet1'[Cost])

1. **Average Sales per Product:**

Avg Sales per Product = DIVIDE(SUM('Sheet1'[Sales]), DISTINCTCOUNT('Sheet1'[ProductID]))

1. **Profit Tag:**

Profit Tag = IF(('Sheet1'[Sales] - 'Sheet1'[Cost]) > 1000, "High Profit", "Low Profit")

1. **Circular dependency error** — happens when a column depends on itself (directly or indirectly).
2. **Row context vs. Filter context:**

* Row context → row-by-row calculation.
* Filter context → filters applied by visuals, slicers, relationships.

1. **YTD Sales:**

YTD Sales = TOTALYTD(SUM('Sheet1'[Sales]), 'Sheet1'[Date])

1. **Dynamic Measure (switch between Sales, Profit, Margin):**

Selected Metric =

SWITCH(

SELECTEDVALUE('Metric Selector'[Metric]),

"Sales", SUM('Sheet1'[Sales]),

"Profit", SUM('Sheet1'[Sales]) - SUM('Sheet1'[Cost]),

"Margin", DIVIDE(SUM('Sheet1'[Sales]) - SUM('Sheet1'[Cost]), SUM('Sheet1'[Sales]))

)

1. **Optimization with VAR:**

Profit Margin =

VAR Sales = SUM('Sheet1'[Sales])

VAR Cost = SUM('Sheet1'[Cost])

RETURN DIVIDE(Sales - Cost, Sales)

1. **CALCULATE overriding a filter:**

All Region Sales = CALCULATE(SUM('Sheet1'[Sales]), ALL('Sheet1'[Region]))

1. **Max Sales:**

Max Sales = MAX('Sheet1'[Sales])