

Understanding Context in DAX & CALCULATE - Notes

1. What is row context? Example in a calculated column:

Row context is the current row being evaluated. Example:
TotalPrice = Sales[Quantity] * Sales[UnitPrice]

2. Measure: Total Sales:

Total Sales = SUMX(Sales, Sales[Quantity] * Sales[UnitPrice])

3. RELATED example:

CustomerName = RELATED(Customers[Name])

4. CALCULATE(SUM(Sales[Quantity]), Sales[Category] = "Electronics"):

Returns total quantity sold for Electronics, ignoring current category filters.

5. VAR vs RETURN:

VAR stores a value or table temporarily. RETURN outputs the result.
Example:
VAR HighSales = SUM(Sales[Quantity])
RETURN HighSales * 10

6. Calculated column TotalPrice:

TotalPrice = Sales[Quantity] * Sales[UnitPrice]

7. Electronics Sales measure:

Electronics Sales = CALCULATE(
SUMX(Sales, Sales[Quantity] * Sales[UnitPrice]),
Sales[Category] = "Electronics"
)

8. Measure ignoring category filters:

Total Sales Ignore Category = CALCULATE(
SUMX(Sales, Sales[Quantity] * Sales[UnitPrice]),
ALL(Sales[Category])
)

9. Fix RELATED returning blanks:

Ensure a relationship exists between tables and key values match.

10. Why CALCULATE overrides filters:

It modifies the filter context before evaluating, replacing filters for specified columns.

11. Average Unit Price measure:

Average Unit Price = AVERAGE(Sales[UnitPrice])

12. VAR for high-quantity sales:

High Quantity Count = VAR HighQtySales = FILTER(Sales, Sales[Quantity] > 2)
RETURN COUNTROWS(HighQtySales)

13. % of Category Sales:

% of Category Sales = VAR CategoryTotal = CALCULATE(
SUMX(Sales, Sales[Quantity] * Sales[UnitPrice]),
ALLEXCEPT(Sales, Sales[Category])
)
RETURN DIVIDE(
SUMX(Sales, Sales[Quantity] * Sales[UnitPrice]),
CategoryTotal
)

14. Remove filters button simulation:

Sales Remove Filters = CALCULATE(
SUMX(Sales, Sales[Quantity] * Sales[UnitPrice]),
ALL(Sales)
)

15. CALCULATE ignoring slicer troubleshooting:

Likely due to ALL() or REMOVEFILTERS() in measure, or slicer column from unrelated table.