

## Lesson 9

**Topic:** Understanding Context in DAX & CALCULATE and Basic Filters, Variables

**Prerequisites:** Download DAX\_Context\_Practice.xlsx file.

1. What is row context? Give an example in a calculated column.
2. Write a measure that finds total sales
3. Use RELATED to fetch the Name from the Customers table into the Sales table.
4. What does CALCULATE(SUM(Sales[Quantity]), Sales[Category] = "Electronics") return?
5. Explain the difference between VAR and RETURN in DAX.
6. Create a calculated column in Sales called TotalPrice using row context (Quantity \* UnitPrice).
7. Write a measure Electronics Sales using CALCULATE to sum sales only for the "Electronics" category.
8. Use ALL(Sales[Category]) in a measure to show total sales ignoring category filters.
9. Fix this error: A calculated column in Sales uses RELATED(Customers[Region]) but returns blanks.
10. Why does CALCULATE override existing filters?
11. Write a measure that returns average unitprice of products
12. Use VAR to store a temporary table of high-quantity sales (Quantity > 2), then count rows.
13. Write a measure % of Category Sales that shows each sale's contribution to its category total.
14. Simulate a "remove filters" button using ALL in a measure.
15. Troubleshoot: A CALCULATE measure ignores a slicer. What's the likely cause?

1. What is row context? Give an example in a calculated column.

Row context is the situation where calculations are performed row by row. It exists only when writing a calculated column.

4. What does CALCULATE(SUM(Sales[Quantity]), Sales[Category] = "Electronics") return?

This returns the total quantity where the Category is only "Electronics". Looking at the current tables, it returns 5.

5. Explain the difference between VAR and RETURN in DAX.

VAR is used to define a variable, while RETURN is used to specify what the formula should return as the result.

9. Fix this error: A calculated column in Sales uses `RELATED(Customers[Region])` but returns blanks

To fix this error, I would:

Check if the relationship between Sales and Customers is correctly set up,  
Ensure that values in CustomerID columns of both tables match properly.

15. Troubleshoot: A `CALCULATE` measure ignores a slicer. What's the likely cause?

Most likely, a `CALCULATE` measure ignores the slicer because:

A function like `ALL()` is used, which removes filters,

Or there is no relationship between the tables.