

## Lesson 9: Understanding Context in DAX & CALCULATE – Theory Answers

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

Row context is the context in which a formula is evaluated for a single row of a table. It exists automatically in calculated columns.

Example: In the Sales table, a calculated column can be:

`TotalPrice = Sales[Quantity] * Sales[UnitPrice]`

This formula is evaluated row by row due to row context.

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

This formula returns the total quantity of sales only for the rows where the Category is 'Electronics'. It modifies the filter context.

### 3. Explain the difference between VAR and RETURN in DAX.

'VAR' is used to define a variable that stores a value or result of an expression.

'RETURN' is used to specify what should be returned from the expression, typically using the variables declared.

Example:

`VAR totalSales = SUM(Sales[TotalPrice])`

`RETURN totalSales / 1000`

### 4. Why does CALCULATE override existing filters?

CALCULATE overrides existing filters because it creates a new filter context or modifies the current one explicitly using filter functions.

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

The likely cause is the use of a function like `ALL()` or `REMOVEFILTERS()` inside CALCULATE, which removes or ignores filters.