1. What is row context? Give an example in a calculated column. Row context exists when DAX evaluates each row one-by-one, usually in:

   Calculated columns, Iterating functions (like SUMX, FILTER).It means DAX can access the values from other columns in the same row.

2. Write a measure that finds total sales.

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

3. Use RELATED to fetch the Name from the Customers table into the Sales table.

   CustomerName = RELATED(Customers[Name])

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

   This formula returns the total quantity of products sold where the category is "Electronics".

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

   ✅ VAR:
   Used to declare a variable and store a value or expression.
   Improves readability and performance.
   ✅ RETURN:
   Used to return the final value of the expression.
   Everything after RETURN is the result of the measure or column.

6. Create a calculated column in Sales called TotalPrice using row context (Quantity * UnitPrice). TotalPrice = Sales[Quantity] * Sales[UnitPrice]

7. Write a measure Electronics Sales using CALCULATE to sum sales only for the "Electronics" category.

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

8. Use ALL(Sales[Category]) in a measure to show total sales ignoring category filters.

TotalSales_AllCategories = CALCULATE(

SUM(Sales[Quantity] * Sales[UnitPrice]),

ALL(Sales[Category]))

9. Fix this error: A calculated column in Sales uses RELATED(Customers[Region]) but returns blanks. Go to Model view
   Create a relationship:
   Sales[CustomerID] → Customers[CustomerID]
   Set it to One to Many and Active
   Region = RELATED(Customers[Region])

10. Why does CALCULATE override existing filters?

    CALCULATE changes the filter context by:

    Adding new filters

    Overriding existing filters

    Evaluating the expression in the new context

    It's the only function in DAX that can modify filter context.

11. Write a measure that returns average unitprice of products

    AverageUnitPrice = AVERAGE(Sales[UnitPrice])

12. Use VAR to store a temporary table of high-quantity sales (Quantity > 2), then count rows.

    HighQuantityCount =

    VAR HighQtySales =

      FILTER(Sales, Sales[Quantity] > 2)

    RETURN

    COUNTROWS(HighQtySales)

13. Write a measure % of Category Sales that shows each sale's contribution to its category total.

    PercentOfCategorySales =

    DIVIDE(

      Sales[Quantity] * Sales[UnitPrice],

      CALCULATE(

       SUM(Sales[Quantity] * Sales[UnitPrice]),

      ALLEXCEPT(Sales, Sales[Category])

)

)

14. Simulate a "remove filters" button using ALL in a measure.

TotalSalesNoFilter =

CALCULATE(

SUM(Sales[Quantity] * Sales[UnitPrice]),

ALL(Sales)

)

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

The measure includes an ALL() or REMOVEFILTERS() that overrides the slicer filter.

Example causing problem: TotalSales =

CALCULATE(

SUM(Sales[Quantity] * Sales[UnitPrice]),

ALL(Sales[Category]) -- This removes slicer effect

)

Fix:

Remove or modify ALL() if slicer interaction is desired.