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

Row Context is the context of the **current row** being evaluated in a calculated column or iterator.

🔷 Example (Calculated Column):

DAX
КопироватьРедактировать
TotalPrice = Sales[Quantity] * Sales[UnitPrice]

Here, for each row, DAX multiplies **that row's Quantity and UnitPrice**, using row context.

✅ 2. Write a measure that finds total sales.

DAX
КопироватьРедактировать
Total Sales = SUM(Sales[SalesAmount])

Replace **SalesAmount** with your actual sales column name.

✅ 3. Use RELATED to fetch Name from Customers into Sales.

Calculated column in **Sales table**:

DAX
КопироватьРедактировать
CustomerName = RELATED(Customers[Name])

✔️ **Note:** Requires an existing relationship from Sales to Customers on CustomerID.

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

⚠️ This syntax is incorrect.

Correct syntax uses a filter expression inside CALCULATE:

DAX
КопироватьРедактировать
Electronics Quantity =
CALCULATE(
    SUM(Sales[Quantity]),
    Sales[Category] = "Electronics"
)

✔ Returns **total quantity sold where category is Electronics**.

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

VAR	RETURN
Defines a **variable** to store a value or table for reuse	Returns the final result of the measure or calculated column
Improves readability and performance	Marks end of VAR definitions

🔷 **Example:**

DAX
КопироватьРедактировать
MyMeasure =
VAR TotalSales = SUM(Sales[SalesAmount])
RETURN
TotalSales * 0.1

✅ 6. Create calculated column TotalPrice using row context (Quantity * UnitPrice).

DAX
КопироватьРедактировать
TotalPrice = Sales[Quantity] * Sales[UnitPrice]

✔ Uses **row context** to evaluate each row.

✅ 7. Measure Electronics Sales using CALCULATE to sum sales only for "Electronics".

DAX
КопироватьРедактировать
Electronics Sales =
CALCULATE(
    SUM(Sales[SalesAmount]),
    Sales[Category] = "Electronics"
)

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

DAX
КопироватьРедактировать
Total Sales All Categories =
CALCULATE(
    SUM(Sales[SalesAmount]),
    ALL(Sales[Category])

)

✔ Removes category filters to show **total sales overall**.

✅ 9. Fix error: Calculated column uses RELATED(Customers[Region]) but returns blanks.

✔ Likely causes:

- **No relationship** exists between Sales and Customers.
- Relationship is in wrong direction or inactive.
- **CustomerID in Sales** does not match any in Customers.

🔧 **Fix:**

- Check **Model View**, ensure an active one-to-many relationship from Customers to Sales on CustomerID.

✅ 10. Why does CALCULATE override existing filters?

Because **CALCULATE modifies the filter context** by adding or replacing filters defined in its arguments, allowing you to force calculation under specific conditions.

✅ 11. Measure: average unit price of products.

DAX
КопироватьРедактировать
Average UnitPrice = AVERAGE(Products[UnitPrice])

Or if from Sales table with related UnitPrice:

DAX
КопироватьРедактировать
Average UnitPrice = AVERAGE(Sales[UnitPrice])

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

DAX
КопироватьРедактировать
HighQuantitySalesCount =
VAR HighSales = FILTER(Sales, Sales[Quantity] > 2)
RETURN
COUNTROWS(HighSales)

✅ 13. Measure % of Category Sales (each sale’s contribution to category total).

DAX
КопироватьРедактировать
```
% of Category Sales =
DIVIDE(
    Sales[SalesAmount],
    CALCULATE(
        SUM(Sales[SalesAmount]),
        ALLEXCEPT(Sales, Sales[Category])
    )
)
```

✔ Shows each sale as a % of its category’s total sales.

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

DAX
КопироватьРедактировать
```
Total Sales Remove Filters =
CALCULATE(
    SUM(Sales[SalesAmount]),
    ALL(Sales)
)
```

This measure **ignores all filters on Sales table** when displayed.

✅ 15. Troubleshoot: CALCULATE measure ignores slicer – likely cause?

✔ Common causes:

- **ALL or REMOVEFILTERS** used inside the measure, ignoring slicers.
- Measure references a table with **no relationship** to slicer table.
- Incorrect data model setup.