1. What is row context? Give an example in a calculated column.
Row context is the concept in DAX where calculations are evaluated one row at a time (e.g., in a calculated column).
Example:
DAX
КопироватьРедактировать
TotalPrice = Sales[Quantity] * Sales[UnitPrice]
This works because DAX evaluates Quantity and UnitPrice for each row in the Sales table using row context.

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2. Write a measure that finds total sales.
DAX
КопироватьРедактировать
Total Sales = SUM(Sales[TotalPrice])

---

3. Use RELATED to fetch the Name from the Customers table into the Sales table.
DAX
КопироватьРедактировать
CustomerName = RELATED(Customers[Name])

---

4. What does this return?
DAX
КопироватьРедактировать
CALCULATE(SUM(Sales[Quantity]), Sales[Category] = "Electronics")
This will cause an error because Sales[Category] = "Electronics" is a row-level logical expression, not a proper filter argument.
✅ Correct usage:
DAX
КопироватьРедактировать
CALCULATE(SUM(Sales[Quantity]), FILTER(Sales, Sales[Category] = "Electronics"))

---

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

VAR stores intermediate values or calculations.

RETURN specifies what expression to output, often using variables defined by VAR.

Example:
DAX
КопироватьРедактировать
Measure =
VAR Discounted = Sales[Quantity] * 0.9
RETURN Discounted

---

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

---

7. Write a measure Electronics Sales using CALCULATE.
DAX
КопироватьРедактировать
Electronics Sales =
CALCULATE(SUM(Sales[TotalPrice]), Sales[Category] = "Electronics")
Again, this should be corrected to use FILTER:
DAX

КопироватьРедактировать
Electronics Sales =
CALCULATE(SUM(Sales[TotalPrice]), FILTER(Sales, 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[TotalPrice]), ALL(Sales[Category]))

---

9. Fix this error: A calculated column in Sales uses RELATED(Customers[Region]) but returns blanks.
Likely cause: There is no relationship between Sales and Customers, or some Sales rows have no matching Customer.
✅ Fix:

Ensure there's a relationship between Sales[CustomerID] and Customers[CustomerID].

Check for missing foreign keys in Sales.

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10. Why does CALCULATE override existing filters?
CALCULATE modifies the filter context by adding or replacing filters. It creates a new filter context in which the expression is evaluated.

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11. Write a measure that returns average unit price of products.
DAX
КопироватьРедактировать
Average Unit Price = AVERAGE(Sales[UnitPrice])

---

12. Use VAR to store a temporary table of high-quantity sales (Quantity > 2), then count rows.
DAX
КопироватьРедактировать
High Quantity Count =
VAR HighSales = FILTER(Sales, Sales[Quantity] > 2)
RETURN COUNTROWS(HighSales)

---

13. Write a measure % of Category Sales that shows each sale's contribution to its category total.
DAX
КопироватьРедактировать
% of Category Sales =
DIVIDE(
  Sales[TotalPrice],
  CALCULATE(SUM(Sales[TotalPrice]), ALLEXCEPT(Sales, Sales[Category]))
)

---

14. Simulate a "remove filters" button using ALL in a measure.
DAX
КопироватьРедактировать
Total Sales (Ignore Filters) =
CALCULATE(SUM(Sales[TotalPrice]), ALL(Sales))

---

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

The measure uses ALL() or REMOVEFILTERS()—which explicitly remove slicers' filters.

There is no relationship between the slicer table and the table used in the measure.

The slicer column is not actually affecting the filter context due to model design.