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

**Answer:**
**Row context** means that DAX evaluates one row at a time. In a calculated column, you can use values from the same row.

**Example:**

dax

TotalPrice = Sales[Quantity] * Sales[UnitPrice]

Each row of the Sales table calculates its own TotalPrice.

---

### ✅ 2. Write a measure that finds total sales

dax

Total Sales = SUM(Sales[Amount])

---

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

dax

Customer Name = RELATED(Customers[Name])

Requires a relationship between Sales[CustomerID] and Customers[CustomerID].

---

### ✅ 4. What does this return?

dax

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

**Answer:**
It calculates the sum of quantity sold for **only Electronics** category.
⚠️ But technically you should use:

dax

Electronics Quantity =

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

---

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

- VAR lets you define intermediate variables.
- RETURN outputs the final result.

**Example:**

dax

Sales After Discount =

VAR Discounted = SUM(Sales[Amount]) * 0.9

RETURN Discounted

---

✅ **6. Create a calculated column TotalPrice = Quantity * UnitPrice**

dax

TotalPrice = Sales[Quantity] * Sales[UnitPrice]

---

✅ **7. Measure: Electronics Sales using CALCULATE**

dax

Electronics Sales =

CALCULATE(SUM(Sales[Amount]), Sales[Category] = "Electronics")

---

✅ **8. Use ALL(Sales[Category]) to ignore filters in a measure**

dax

Total Sales Ignoring Category =

CALCULATE(SUM(Sales[Amount]), ALL(Sales[Category]))

---

✅ **9. Fix this error: RELATED(Customers[Region]) returns blanks.**

**Cause:** There's likely **no active relationship** between Sales and Customers, or values are mismatched.

**Fix:**

1. Check that the relationship exists and is active.
2. Make sure keys like CustomerID match in both tables.

---

### ✅ 10. Why does CALCULATE override filters?

**Answer:**
CALCULATE modifies the filter context. It can **add, replace, or remove filters**, which allows you to analyze data differently from what's selected in slicers or visuals.

---

### ✅ 11. Measure: Average Unit Price

dax

```
Average Unit Price = AVERAGE(Sales[UnitPrice])
```

---

### ✅ 12. Use VAR to store a table and count high-quantity rows

dax

```
High Quantity Count =
VAR HighSales = FILTER(Sales, Sales[Quantity] > 2)
RETURN COUNTROWS(HighSales)
```

---

### ✅ 13. Measure: % of Category Sales

dax

```
% of Category Sales =
DIVIDE(
    Sales[Amount],
    CALCULATE(SUM(Sales[Amount]), ALLEXCEPT(Sales, Sales[Category]))
)
```

---

### ✅ 14. Simulate "Remove Filters" using ALL

dax

```
Sales Without Filters =
CALCULATE(SUM(Sales[Amount]), ALL(Sales))
```

---

### ✅ 15. Troubleshoot: CALCULATE ignores slicer

**Cause:**
You probably used ALL() or REMOVEFILTERS() inside CALCULATE, which **explicitly removes slicer filters**.