Puzzle 1: Confusing Totals

Problem: The total of Sales / Quantity doesn't match the sum of individual rows because Power BI totals differently at total-level.

Solution:

Correct DAX Measure:

```
Correct Average =
DIVIDE(SUM(Sales_with_Geodata[Sales]),
SUM(Sales_with_Geodata[Quantity]))
```

Puzzle 2: Filtered vs. Unfiltered Totals

Measures:

```
Total Sales = SUM(Sales_with_Geodata[Sales])

Total Sales All Categories =
CALCULATE(
    [Total Sales],
    REMOVEFILTERS(Sales_with_Geodata[Category])
)

% of Total =
DIVIDE([Total Sales], [Total Sales All Categories])
```

Explanation: One measure respects category filter, the other ignores.

Visual: Bar Chart → X-axis: Category, Y-axis: All three measures.

Puzzle 3: Changing Context with Slicers

Why does it change? The slicer filters the context of the measure.

Ignore Slicer DAX:

```
Total Sales (Ignore Country) =
CALCULATE(
    [Total Sales],
    REMOVEFILTERS(Sales_with_Geodata[Country])
)
```

Puzzle 4: Misleading Average

Problem: Total Sales / Total Orders looks fine in total but not per row.

Solution:

Use AVERAGEX for per-row accuracy:

```
Average Sales =
AVERAGEX(
    VALUES(Sales_with_Geodata[Order ID]),
    Sales_with_Geodata[Sales]
)
```

Puzzle 5: Highlight Top Product per Category
Measure:
Product Sales Rank =
RANKX(
   FILTER(
     ALL(Sales_with_Geodata[Product]),
     Sales_with_Geodata[Category]   =
MAX(Sales_with_Geodata[Category])
   ),
   [Total Sales],
   ,
   DESC
)
Visual-Level Filter: Product Sales Rank = 1
Puzzle 6: Unexpected Blank Values
Measure:
Sales in France =
VAR FranceSales =
   CALCULATE(
     SUM(Sales_with_Geodata[Sales]),
     Sales_with_Geodata[Country] = "France"
)
RETURN IF(ISBLANK(FranceSales), 0, FranceSales)
Reason: Blank because no sales in France.
Puzzle 7: Time Intelligence Confusion
Measures:
Total Sales = SUM(Sales_with_Geodata[Sales])

Previous Month Sales =
CALCULATE(
   [Total Sales],
   PREVIOUSMONTH('Date'[Date])
)
Visual: Line Chart, X-axis: YearMonth.

Product	Sum of Sales	Sum of Quantity	Sales per Quantity
Camera	80,610.13	560	143.95
Headphones	26,629.81	571	46.64
Keyboard	47,410.31	543	87.31
Laptop	108,981.84	489	222.87
Monitor	71,295.94	512	139.25
Mouse	31,342.07	538	58.26
Phone	76,294.07	439	173.79
Printer	46,181.80	680	67.91
Smartwatch	50,697.34	467	108.56
Tablet	96,592.81	600	160.99
Total	**636,036.12**	**5399**	**117.81**

Category	Total Sales	Total Sales All Categories	% of Total
Electronics	76,294.07	636,036.12	12.00%
Mobile Devices	80,610.13	636,036.12	12.67%
Computers	121,993.28	636,036.12	19.18%
Accessories	357,138.64	636,036.12	56.15%
Total	**636,036.12**	**636,036.12**	**100.00%**

Total Sales	Total Orders	Average Sales per Order
636,036.12	1550500	0.41

636.04K
Total Sales

636.04K
Total Sales (Ignore Country)

Country
- ☐ Australia
- ☐ Brazil
- ☐ Canada
- ☐ France
- ☐ Germany

Category	Total Sales
⊞ Accessories	357,138.64
⊞ Computers	121,993.28
⊞ Electronics	76,294.07
⊞ Mobile Devices	80,610.13
Total	**636,036.12**

Customer	Sales in France 0
Alice	7,486.94
Ava	1,369.63
Bob	7,074.49
Charlie	3,196.54
David	6,279.38
Emma	4,802.27
Frank	5,236.50
Grace	1,898.54
Hannah	5,250.96
Isaac	1,655.86
Jack	751.95
Liam	2,294.95
Noah	1,987.36
Olivia	2,000.28
Sophia	1,247.19
Total	**52,532.84**

Total Sales and Previous Month Sales by YearMonth

● Total Sales ● Previous Month Sales