

# Measure Field

## What is Measure?

- Special field
- Help data analyses
- Using a DAX (Data Analysis Expressions) formula
- Changing in response to interaction

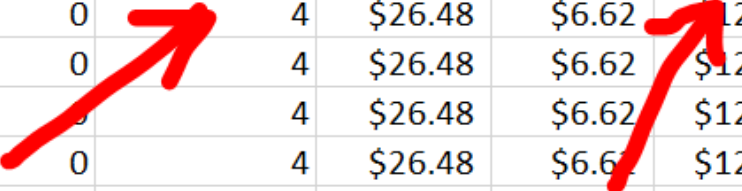
# Microsoft Power BI

## Sales measure.xlsx

We want to create **SaleAmount** measure filed

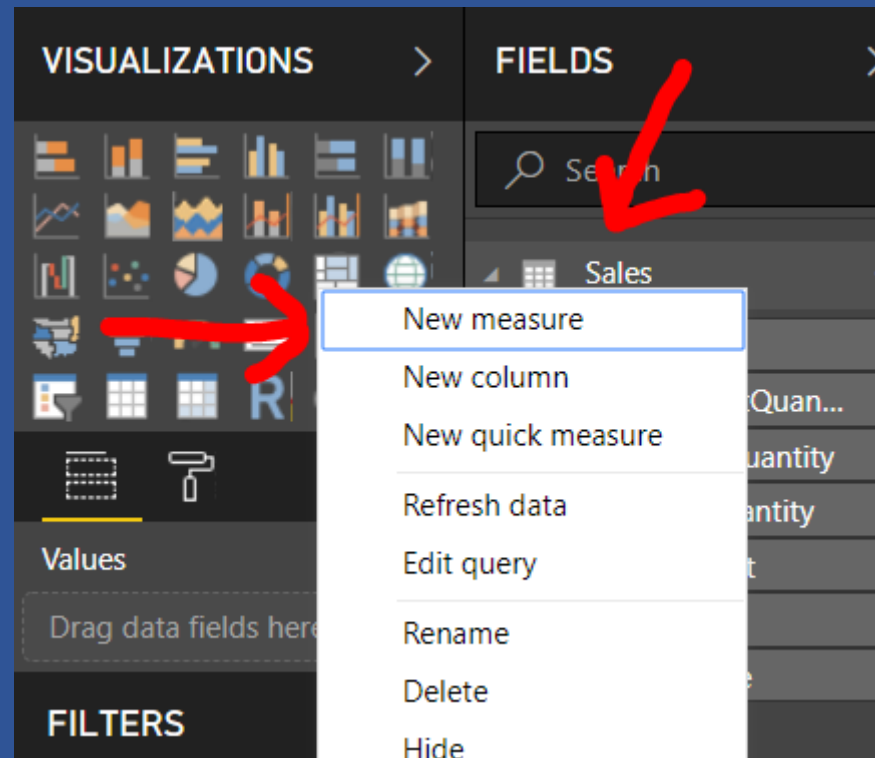
$$\text{Sale Amount} = \text{Quantity} * \text{Unit Price}$$

	A	B	C	D	E	F	G
1	DateKey	DiscountQuantity	ReturnQuantity	SalesQuantity	TotalCost	UnitCost	UnitPrice
2	1/1/2011 0:00	2	0	4	\$26.48	\$6.62	\$12.99
3	1/1/2011 0:00	3	0	4	\$26.48	\$6.62	\$12.99
4	1/1/2011 0:00	0	0	4	\$26.48	\$6.62	\$12.99
5	1/1/2011 0:00	2	0	4	\$26.48	\$6.62	\$12.99
6	1/1/2011 0:00	2	0	4	\$29.60	\$7.40	\$14.52
7	1/1/2011 0:00	3	0	4	\$29.60	\$7.40	\$14.52
8	1/1/2011 0:00	2	0	6	\$66	\$11	\$21.57
9	1/1/2011 0:00	3	0	4	\$44	\$11	\$21.57
10	1/1/2011 0:00	3	0	4	\$44	\$11	\$21.57
11	1/1/2011 0:00	1	1	4	\$44	\$11	\$21.57
12	1/1/2011 0:00	3	0	4	\$44	\$11	\$21.57



# Microsoft Power BI

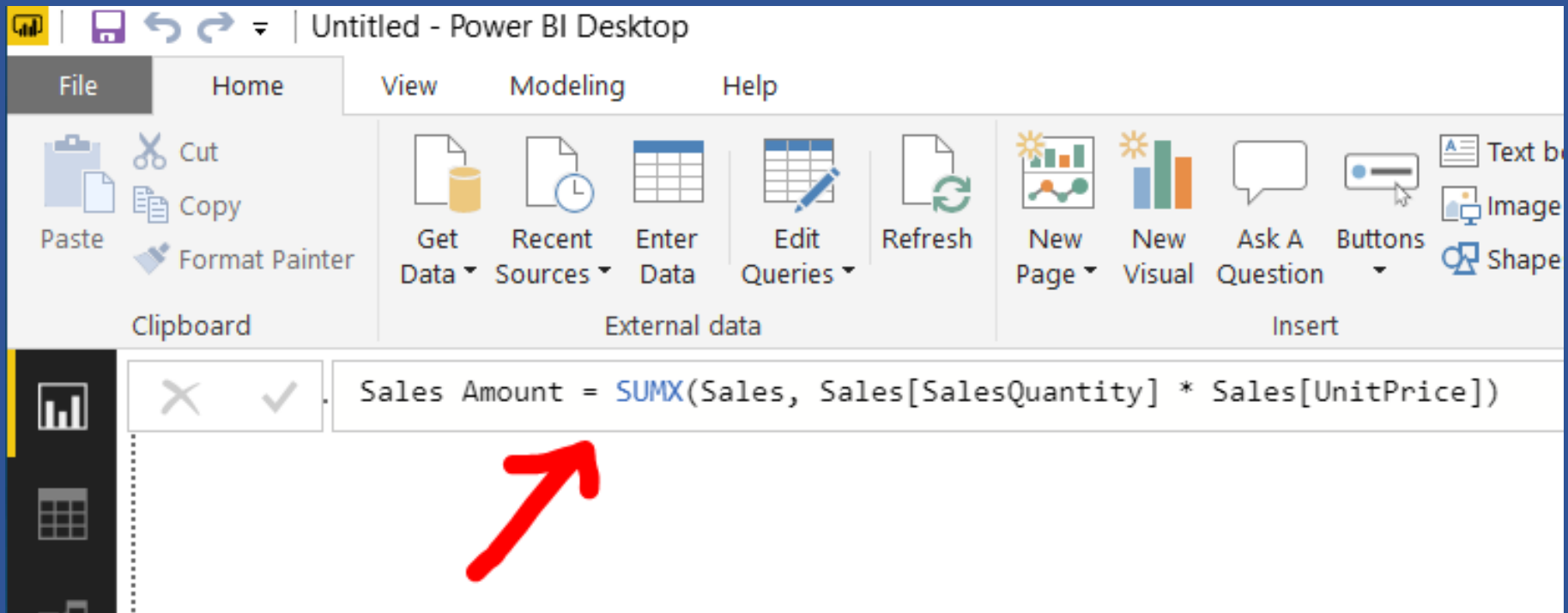
1. New
2. Get data **Sales measure.xlsx**
3. Right click at Sales / New measure



# Microsoft Power BI

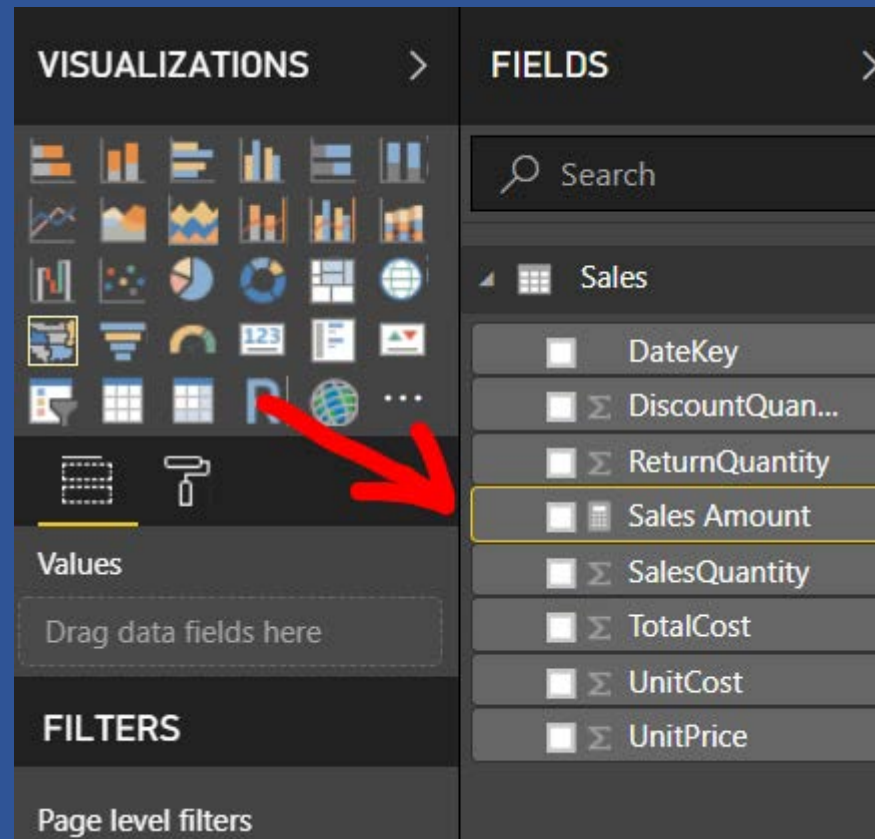
## Enter formula

Sales Amount = SUMX(Sales, Sales[SalesQuantity] \* Sales[UnitPrice])

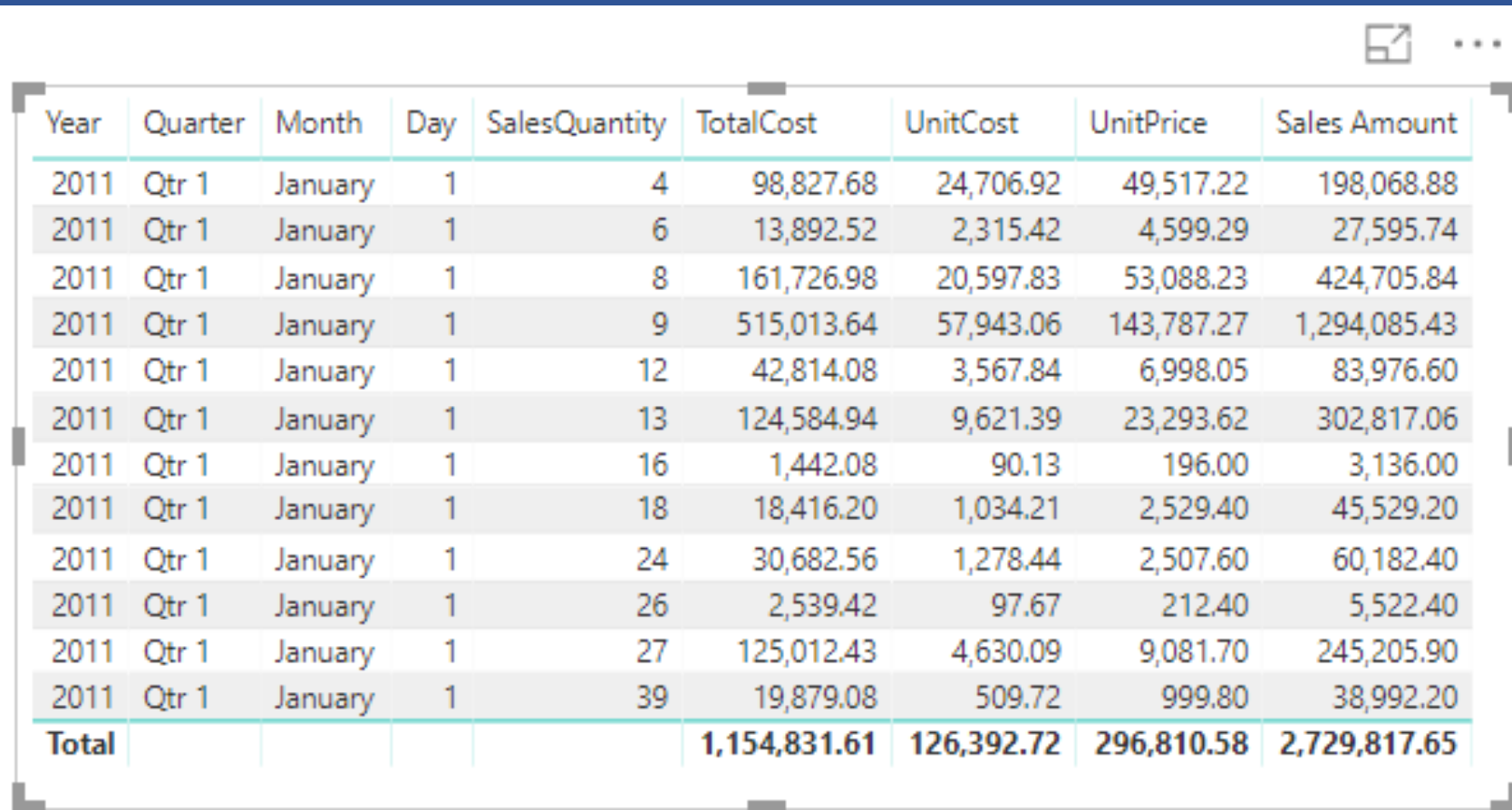


# Microsoft Power BI

## Notice a new field



# Microsoft Power BI



The image shows a screenshot of a Microsoft Power BI report. At the top right, there are icons for a new report and a menu. The main content is a table with 9 columns: Year, Quarter, Month, Day, SalesQuantity, TotalCost, UnitCost, UnitPrice, and Sales Amount. The table contains 12 data rows for January 2011, followed by a 'Total' row. The data shows a general upward trend in sales quantity and cost, with a significant spike in the 9th day of the month.

Year	Quarter	Month	Day	SalesQuantity	TotalCost	UnitCost	UnitPrice	Sales Amount
2011	Qtr 1	January	1	4	98,827.68	24,706.92	49,517.22	198,068.88
2011	Qtr 1	January	1	6	13,892.52	2,315.42	4,599.29	27,595.74
2011	Qtr 1	January	1	8	161,726.98	20,597.83	53,088.23	424,705.84
2011	Qtr 1	January	1	9	515,013.64	57,943.06	143,787.27	1,294,085.43
2011	Qtr 1	January	1	12	42,814.08	3,567.84	6,998.05	83,976.60
2011	Qtr 1	January	1	13	124,584.94	9,621.39	23,293.62	302,817.06
2011	Qtr 1	January	1	16	1,442.08	90.13	196.00	3,136.00
2011	Qtr 1	January	1	18	18,416.20	1,034.21	2,529.40	45,529.20
2011	Qtr 1	January	1	24	30,682.56	1,278.44	2,507.60	60,182.40
2011	Qtr 1	January	1	26	2,539.42	97.67	212.40	5,522.40
2011	Qtr 1	January	1	27	125,012.43	4,630.09	9,081.70	245,205.90
2011	Qtr 1	January	1	39	19,879.08	509.72	999.80	38,992.20
<b>Total</b>					<b>1,154,831.61</b>	<b>126,392.72</b>	<b>296,810.58</b>	<b>2,729,817.65</b>

# Microsoft Power BI

## Don't summarize

The image shows the Microsoft Power BI interface with two main panels: 'VISUALIZATIONS' and 'FIELDS'. The 'FIELDS' panel is active, showing a list of fields for the 'Sales' table. A red arrow points to the 'SalesQuantity' field in the 'Values' section. A context menu is open over the 'SalesQuantity' field, showing various aggregation options. The 'Don't summarize' option is selected, indicated by a green checkmark. Another red arrow points to the 'Remove conditional formatting' option in the menu.

**Fields Panel:**

- Search
- Sales
- ☒ DateKey
- ☐ Σ DiscountQuan...
- ☐ Σ ReturnQuantity
- ☒ Sales Amount
- ☒ Σ SalesQuantity
- ☒ Σ TotalCost
- ☒ Σ UnitCost
- ☒ Σ UnitPrice

**Values Panel:**

- DateKey
- Year
- Quarter
- Month
- Day
- SalesQuantity
- TotalCost
- UnitCost
- UnitPrice
- Sales Amount

**Context Menu:**

- Remove field
- Rename
- Conditional formatting
- Remove conditional formatting
- ☒ Don't summarize
- Sum
- Average
- Minimum
- Maximum
- Count (Distinct)
- Count
- Standard deviation
- Variance
- Median
- New quick measure
- Show items with no data
- New group