**Power Functions in DAX**

They are used to calculate powers, square-roots etc.

Add under → calculated column or a new section → called Math Functions.

**Square of Price:**

Price Squared = POWER(Sales[Price],2)

Filter functions in DAX allow to manipulate or filter data for advanced calculations.

Q. Add a measure for high-value orders above 500.

High Value Sales = CALCULATE([Net Sales],FILTER(Sales,Sales[Quantity]\*Sales[Price]>500))

When to use **MEASURES** and **CALCULATED COLUMN**?

Measure:

1. Use measures when you need aggregated results like SUMs, COUNTs.
2. You want to show the results in cards as a KPI.
3. Values may be calculated on the fly using a filter.

Calculated Column:

1. You need to compute row by row.
2. The value will be stored in the table or data model.
3. You want to use it in slicers, filters or rows of tables.

**CROSS JOIN (Cartesian Product)**

A cross join returns every combination of rows from two tables - also known as Cartesian Product.

Example:

SELECT a.employee\_name, b.project\_name

FROM employees a

CROSS JOIN projects b;

If employee has 3 rows and project has 2 rows, result = 3\*2 = 6 rows.