



M vs DAX

Calculated Column vs Measure

Quick measure

Measure tables



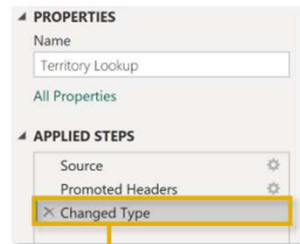


Power BI

M Language vs DAX

M Language	DAX
Used in Power Query Editor	Used in Power BI front-end
Designed for specifically extracting, transforming & loading data	Is designed specifically for analysing relational data models.

Query Editor:



```
#"Changed Type" = Table.TransformColumnTypes( // Adding a new step
    #"Promoted Headers",                     // after we promoted headers
    {                                         // that changes column datatypes
        {"SalesTerritoryKey", Text.From}
    }
)
```

Report View:

Category Name	Total Returns	Bike Returns
Accessories	1,115	
Bikes	427	427
Clothing	267	
Total	1,809	427

```
1 Bike Returns =
2 CALCULATE(
3     [Total Returns],                       // Counting total returns
4     'Product Categories Lookup'[Category Name] = "Bikes" // filtered for bikes only
5 )
```



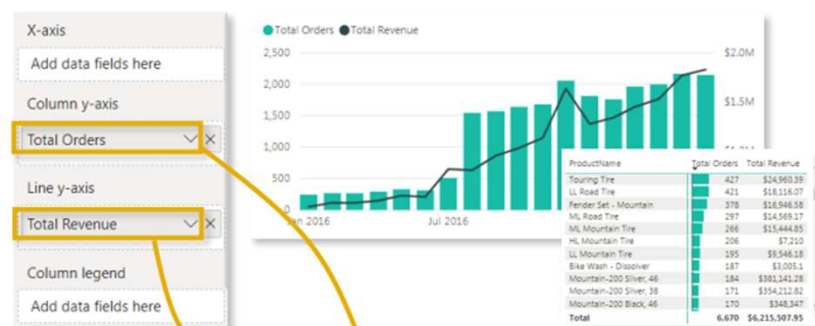
Power BI

Calculated Columns Vs Measures

Calculated Columns	Measures
Values are calculated based on information from each row of a table (row context)	Values are calculated based on information from any filters in the report (filter context)
Appends static values to each row in a table and stores them in the model (which increases file size)	Does not create new data in the tables themselves (doesn't increase file size)
Recalculate on data source refresh or when changes are made to component column	Recalculate in response to any change to filters within the report
<ul style="list-style-type: none">Primarily used for filtering data in reports	Primarily used for aggregating values in report visuals

1 Parent = IF('Customer Lookup'[Total Children]>0,"Yes","No")

Birth Date	Marital Status	Email Address	Annual Income	Total Children	Education Level	Parent
9/3/1943	M	emma32@adventure-works.com	70000	5	Bachelors	Yes
9/14/1967	M	barry20@adventure-works.com	40000	5	High School	Yes
8/5/1945	M	martha13@adventure-works.com	70000	5	High School	Yes
6/4/1946	S	tamara16@adventure-works.com	40000	5	High School	Yes
10/16/1970	S	gerald21@adventure-works.com	130000	5	Bachelors	Yes
5/10/1945	M	alexa8@adventure-works.com	40000	5	High School	Yes
9/24/1938	M	jack53@adventure-works.com	70000	5	Graduate Degree	Yes
7/21/1959	S	ricky1@adventure-works.com	100000	5	Bachelors	Yes
1/6/1962	M	keith4@adventure-works.com	70000	5	Partial College	Yes
8/15/1962	M	latoya19@adventure-works.com	70000	5	Bachelors	Yes
1/26/1967	S	micah11@adventure-works.com	70000	5	Bachelors	Yes
3/8/1946	M	mindy22@adventure-works.com	80000	5	Partial College	Yes
6/11/1960	M	teresa8@adventure-works.com	70000	5	Partial College	Yes



Measures "live" in visuals



Power BI

Quick measures

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