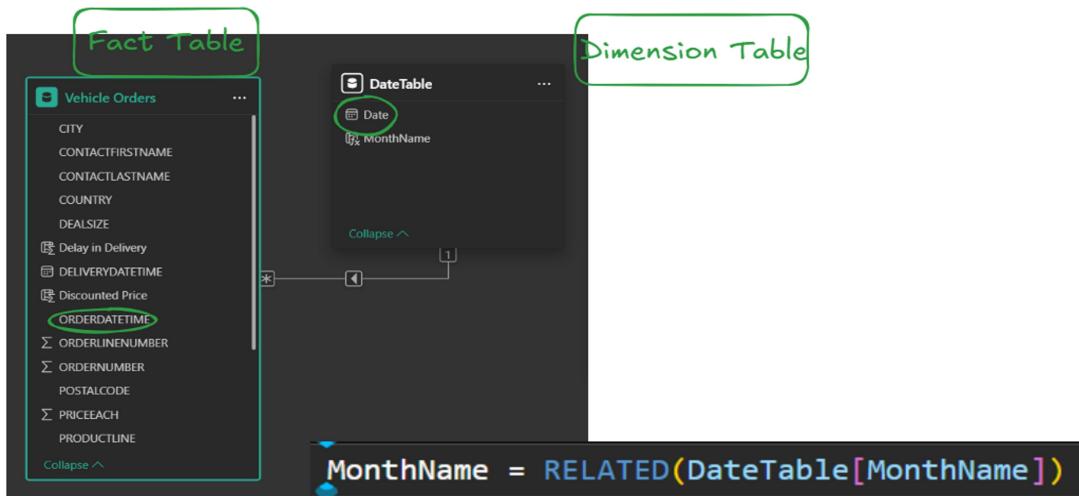


## Advanced DAX [Time Intelligence] - Vehicle Orders

### Related Function



A screenshot of a Power BI report showing vehicle orders data. The table includes columns: TALCODE, COUNTRY, TERRITORY, CONTACTLASTNAME, CONTACTFIRSTNAME, DEALSIZE, Target Delivery Date, Delay in Delivery, Sales Value, Discounted Price, and MonthName. The MonthName column is highlighted with a green arrow pointing from the Fact Table's RELATED function. A blue arrow points from the MonthName column back to the Dimension Table.

A screenshot of a Power BI report showing vehicle orders data. The table includes columns: QUANTITYORDERED, PRICEEACH, ORDERLINENUMBER, and ORDERDATETIME. The ORDERDATETIME column is highlighted with a green box. A blue arrow points from this column to the DateTable in the previous diagram.

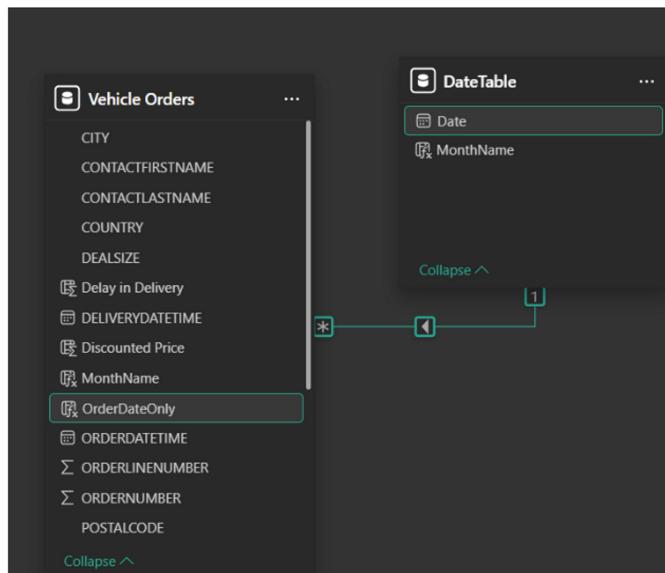
A screenshot of a Power BI report showing the DateTable definition and data. The code defines the DateTable as a CALENDAR table with columns Date and MonthName. The Date column shows dates from 01-01-2012 to 17-01-2012, and the MonthName column shows all months from January to January. A green box highlights the Date column in the table.

DATE(Year, Month, Day)

Returns the specified date in datetime format.

```
1 OrderDateOnly = DATE(
```

STORY	CONTACTLASTNAME	CONTACTFIRSTNAME	DEALSIZE	Target Delivery Date	Delay in Delivery	Sales Value	Discounted Price	MonthName	OrderDateOnly
	Freyre	Diego	Medium	21-05-2014 23:07:00	0	\$2,000	\$85		19-05-2014 00:00:00
	Freyre	Diego	Medium	27-11-2014 01:04:00	48	\$2,000	\$85		25-11-2014 00:00:00
	Freyre	Diego	Medium	15-10-2014 00:33:00	24	\$3,400	\$85		13-10-2014 00:00:00
	Freyre	Diego	Medium	16-08-2016 23:02:00	0	\$4,200	\$85		14-08-2016 00:00:00
	Freyre	Diego	Medium	30-08-2014 00:16:00	24	\$3,900	\$85		28-08-2014 00:00:00
	Freyre	Diego	Medium	19-06-2012 23:51:00	-24	\$4,100	\$80		17-06-2012 00:00:00
	Freyre	Diego	Medium	17-05-2014 23:47:00	24	\$4,600	\$80		15-05-2014 00:00:00
	Freyre	Diego	Medium	28-09-2013 23:42:00	24	\$5,400	\$80		26-09-2013 00:00:00
	Freyre	Diego	Medium	14-03-2014 00:54:00	24	\$4,700	\$85		12-03-2014 00:00:00
	Freyre	Diego	Medium	09-05-2014 01:19:00	0	\$3,300	\$85		17-05-2014 00:00:00
	Freyre	Diego	Medium	11-05-2016 00:47:00	48	\$2,900	\$85		09-05-2016 00:00:00
	Freyre	Diego	Medium	04-06-2012 23:47:00	-24	\$3,600	\$80		02-06-2012 00:00:00
	Freyre	Diego	Medium	15-09-2013 23:41:00	0	\$4,000	\$80		13-09-2013 00:00:00
	Freyre	Diego	Medium	26-05-2012 00:29:00	0	\$2,800	\$85		24-05-2012 00:00:00



STORY	CONTACTLASTNAME	CONTACTFIRSTNAME	DEALSIZE	Target Delivery Date	Delay in Delivery	Sales Value	Discounted Price	MonthName	OrderDateOnly
	Freyre	Diego	Medium	21-05-2014 23:07:00	0	\$2,000	\$85	May	19-05-2014 00:00:00
	Freyre	Diego	Medium	27-11-2014 01:04:00	48	\$2,000	\$85	November	25-11-2014 00:00:00
	Freyre	Diego	Medium	15-10-2014 00:33:00	24	\$3,400	\$85	October	13-10-2014 00:00:00
	Freyre	Diego	Medium	16-08-2016 23:02:00	0	\$4,200	\$85	August	14-08-2016 00:00:00
	Freyre	Diego	Medium	30-08-2014 00:16:00	24	\$3,900	\$85	August	28-08-2014 00:00:00
	Freyre	Diego	Medium	19-06-2012 23:51:00	-24	\$4,100	\$80	June	17-06-2012 00:00:00
	Freyre	Diego	Medium	17-05-2014 23:47:00	24	\$4,600	\$80	May	15-05-2014 00:00:00
	Freyre	Diego	Medium	28-09-2013 23:42:00	24	\$5,400	\$80	September	26-09-2013 00:00:00
	Freyre	Diego	Medium	14-03-2014 00:54:00	24	\$4,700	\$85	March	12-03-2014 00:00:00
	Freyre	Diego	Medium	09-05-2014 01:19:00	0	\$3,300	\$85	May	07-05-2014 00:00:00
	Freyre	Diego	Medium	11-05-2016 00:47:00	48	\$2,900	\$85	May	09-05-2016 00:00:00
	Freyre	Diego	Medium	04-06-2012 23:47:00	-24	\$3,600	\$80	June	02-06-2012 00:00:00
	Freyre	Diego	Medium	15-09-2013 23:41:00	0	\$4,000	\$80	September	13-09-2013 00:00:00
	Freyre	Diego	Medium	26-05-2013 00:33:00	0	\$3,800	\$85	May	24-05-2013 00:00:00
	Freyre	Diego	Medium	30-03-2013 01:26:00	48	\$3,900	\$80	March	28-03-2013 00:00:00
	Freyre	Diego	Medium	14-09-2012 01:12:00	-24	\$4,100	\$85	September	12-09-2012 00:00:00
	Freyre	Diego	Medium	06-11-2013 00:58:00	48	\$2,400	\$85	November	04-11-2013 00:00:00



**ALL Function** → Helping me to remove Filters.

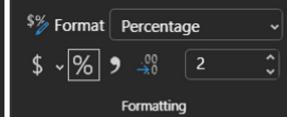
```
All Revenue = CALCULATE(
    [Total Revenue],
    ALL('Vehicle Orders'))
    Filter
```

What ALL function do here, It removes all the predefined filters from Vehicle Orders

PRODUCTLINE	Total Revenue	All Revenue	% of ProductLine Contribution on Revenue
Classic Cars	\$29,68,546.4	\$82,90,886.79	35.80%
Motorcycles	\$9,71,086.29	\$82,90,886.79	11.71%
Planes	\$8,77,942.21	\$82,90,886.79	10.59%
Ships	\$6,77,940.4	\$82,90,886.79	8.18%
Trains	\$2,03,804.26	\$82,90,886.79	2.46%
Trucks and Buses	\$9,47,355.18	\$82,90,886.79	11.43%
<b>Total</b>	<b>\$82,90,886.79</b>	<b>\$82,90,886.79</b>	<b>100.00%</b>

**\$8.29M**  
All Revenue

```
% of ProductLine Contribution on Revenue =
DIVIDE(
    [Total Revenue],
    [All Revenue],
    "-")
```



```
DIVIDE(Numerator, Denominator,
[AlternateResult])
```

Safe Divide function with ability to handle divide by zero case.

All Revenue      \$% Fa CALCULATE(Expression, [Filter1], ...)

Measure Table      \$ Evaluates an expression in a context modified by filters.

Structure

```
1 All Revenue = CALCULATE(
2             [Total Revenue],
3             ALL('Vehicle Orders'))
```

DEALSIZE	Total Revenue	All Revenue	% of ProductLine Contribution on Revenue
Large	\$7,38,757.91	\$82,90,886.79	8.91%
Medium	\$49,61,736.68	\$82,90,886.79	59.85%
Small	\$25,90,392.2	\$82,90,886.79	31.24%
<b>Total</b>	<b>\$82,90,886.79</b>	<b>\$82,90,886.79</b>	<b>100.00%</b>

## Time Intelligence

Report view 1 Month = Month(DateTable[Date])

Date	MonthName	Year	Month
01-01-2012	January	2012	1
02-01-2012	January	2012	1
03-01-2012	January	2012	1
04-01-2012	January	2012	1
05-01-2012	January	2012	1
06-01-2012	January	2012	1
07-01-2012	January	2012	1
08-01-2012	January	2012	1
09-01-2012	January	2012	1
10-01-2012	January	2012	1
11-01-2012	January	2012	1
12-01-2012	January	2012	1
13-01-2012	January	2012	1
14-01-2012	January	2012	1
15-01-2012	January	2012	1
16-01-2012	January	2012	1
17-01-2012	January	2012	1
18-01-2012	January	2012	1
19-01-2012	January	2012	1
20-01-2012	January	2012	1
21-01-2012	January	2012	1
22-01-2012	January	2012	1
23-01-2012	January	2012	1
24-01-2012	January	2012	1
25-01-2012	January	2012	1
26-01-2012	January	2012	1
27-01-2012	January	2012	1

Year = YEAR(DateTable[Date])

Quarter = FORMAT(DateTable[Date], "Q")

Day = DAY(DateTable[Date])

DayName = FORMAT([DateTable[Date]], "dddd")

`1 DayName = FORMAT[DateTable[Date], "dddd"]`

Date	MonthName	Year	Month	Quarter	Day	DayName
01-01-2012	January	2012	1	1	1	Sunday
02-01-2012	January	2012	1	1	2	Monday
03-01-2012	January	2012	1	1	3	Tuesday
04-01-2012	January	2012	1	1	4	Wednesday
05-01-2012	January	2012	1	1	5	Thursday
06-01-2012	January	2012	1	1	6	Friday
07-01-2012	January	2012	1	1	7	Saturday
08-01-2012	January	2012	1	1	8	Sunday
09-01-2012	January	2012	1	1	9	Monday
10-01-2012	January	2012	1	1	10	Tuesday
11-01-2012	January	2012	1	1	11	Wednesday
12-01-2012	January	2012	1	1	12	Thursday
13-01-2012	January	2012	1	1	13	Friday
14-01-2012	January	2012	1	1	14	Saturday
15-01-2012	January	2012	1	1	15	Sunday
16-01-2012	January	2012	1	1	16	Monday
17-01-2012	January	2012	1	1	17	Tuesday
18-01-2012	January	2012	1	1	18	Wednesday
19-01-2012	January	2012	1	1	19	Thursday

### Hierarchy

```
Year  
Quarter  
Month  
Day
```

`TOTALYTD()` → Error [Vehicle Orders [OrderDateTime]]

Total YTD Quantity =

```
TOTALYTD(  
    SUM('Vehicle Orders'[QUANTITYORDERED]),  
    'Vehicle Orders'[ORDERDATETIME])
```

Year	Total YTD Quantity
2012	16567
2013	25629
2014	26498
2015	17217
2016	11371
2017	1785
<b>Total</b>	<b>1785</b>

Rows

- Date
- Year
- Quarter
- Month
- Day

Columns

Values

```
Total YTD Quantity =  
TOTALYTD(  
    SUM('Vehicle Orders'[QUANTITYORDERED]),  
    DateTable[Date])
```

Year	Total YTD Quantity
2017	1785
2016	11371
2015	17217
2014	26498
2013	25629
2012	16567
<b>Total</b>	<b>1785</b>

Expand all down one level in the hierarchy



YTD is allowing you to get an idea of Till that date what is the Quantity Sold.

Year	Total YTD Quantity	Sum of QUANTITYORDERED
2012	16567	16567
Qtr 1	1929	1929
Qtr 2	5557	3628
Qtr 3	10835	5278
Qtr 4	16567	5732
2013	25629	25629
2014	26498	26498
2015	17217	17217
2016	11371	11371
2017	1785	1785
Total	1785	99067

Year	Total YTD Quantity	Sum of QUANTITYORDERED
2012	16567	16567
Qtr 1	1929	1929
January	501	501
February	1105	604
March	1929	824
Qtr 2	5557	3628
April	2881	952
May	4025	1144
June	5557	1532
Qtr 3	10835	5278
July	7125	1568
August	8982	1857
September	10835	1853
Qtr 4	16567	5732
October	12859	2024
November	14909	2050
December	16567	1658

Fixed Window

"Jan", "Feb", "Mar", "Apr", "May", "Jun", "Jul", "Aug", "Sept", "Oct", "Nov", "Dec"

Year	Total YTD Quantity	Total QTD Quantity	Sum of QUANTITYORDERED
2012	16567	5732	16567
Qtr 1	1929	1929	1929
January	501	501	501
February	1105	1105	604
March	1929	1929	824
Qtr 2	5557	3628	3628
April	2881	952	952
May	4025	2096	1144
June	5557	3628	1532
Qtr 3	10835	5278	5278
July	7125	1568	1568
August	8982	3425	1857
September	10835	5278	1853
Qtr 4	16567	5732	5732
October	12859	2024	2024
November	14909	4074	2050
December	16567	5732	1658

Total YTD Quantity =  
**TOTALYTD(**  
 SUM('Vehicle Orders'[QUANTITYORDERED]),  
 DateTable[Date])

**DatesYTD()** → calculate

Total QTD Quantity =  
**TOTALQTD(**  
 SUM('Vehicle Orders'[QUANTITYORDERED]),  
 DateTable[Date])

**DatesQTD()**

Total MTD Quantity =  
**TOTALMTD(**  
 SUM('Vehicle Orders'[QUANTITYORDERED]),  
 DateTable[Date])

**DatesMTD()**

Total YTD Quantity (**DatesYTD**) =  
**CALCULATE(**  
 SUM('Vehicle Orders'[QUANTITYORDERED]),  
 DATESYTD(DateTable[Date]))

**DATESQTD, DATESMTD**

Year	Total YTD Quantity	Total YTD Quantity (DatesYTD)
2012	16567	16567
Qtr 1	1929	1929
January	501	501
February	1105	1105
March	1929	1929
Qtr 2	5557	5557
April	2881	2881
May	4025	4025
June	5557	5557
Qtr 3	10835	10835
July	7125	7125
August	8982	8982
September	10835	10835
Qtr 4	16567	16567
October	12859	12859
November	14909	14909

## DatesInPeriod

"Jan", "Feb", "Mar", "Apr", "May", "Jun", "Jul", "Aug", "Sept", "Oct", "Nov", "Dec"

Q1 Q2

Calculate number of Vehicles Orders in the last 3 months

```
DATESINPERIOD(Dates, StartDate,  
NumberOfIntervals, Interval)
```

Returns the dates from the given period.

### Orders in Last 3 months =

```
Orders in Last 3 months =  
CALCULATE(  
    COUNTROWS('Vehicle Orders'),  
    DATESINPERIOD(  
        DateTable[Date],  
        MAX(DateTable[Date]),  
        -3,  
        MONTH
```

Calculate (

- Expression,
- Filter [DatesInPeriod]

The maximum day of the selected date

Year Orders in Last 3 months Sum of QUANTITYORDERED

2012	167	16567
2013	218	25629
2014	169	26498
2015	100	17217
2016	67	11371
2017	4	1785
<b>Total</b>	<b>4</b>	<b>99067</b>

Year Orders in Last 3 months Count of QUANTITYORDERED

2012	167	477
Qtr 1	55	55
Qtr 2	106	106
Qtr 3	149	149
Qtr 4	167	167
<b>2013</b>	<b>218</b>	<b>737</b>
Qtr 1	178	178
Qtr 2	154	154
Qtr 3	187	187
Qtr 4	218	218
2014	169	750
2015	100	491
2016	67	314
<b>Total</b>	<b>4</b>	<b>2823</b>

DATESBETWEEN

(  
startDate,  
EndDate  
)

Year Orders in Last 3 months Count of QUANTITYORDERED

2012	167	477
Qtr 1	55	55
January	15	15
February	32	17
March	55	23
Qtr 2	106	106
April	69	29
May	86	34
June	106	43
Qtr 3	149	149
July	123	46
August	140	51
September	149	52
<b>Total</b>	<b>4</b>	<b>2823</b>

```

Orders Q1 2012 =
CALCULATE(
    COUNTROWS('Vehicle Orders'),
    DATESBETWEEN(
        DateTable[Date],
        DATE(2012,1,1),
        DATE(2012,3,31)))

```

Filter inside the calculate function has more priorities than any other Functions.

Year	Orders in Last 3 months	Count of QUANTITYORDERED	Orders Q1 2012
2012	167	477	55
Qtr 1	55	55	55
January	15	15	55
February	32	17	55
March	55	23	55
Qtr 2	106	106	55
April	69	29	55
May	86	34	55
June	106	43	55
Qtr 3	149	149	55
July	123	46	55
August	140	51	55
September	149	52	55
Total	4	2823	55