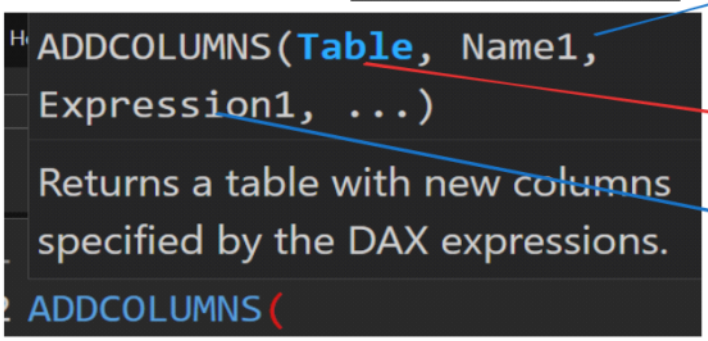
Advanced DAX Functions - P3

ADD COLUMNS

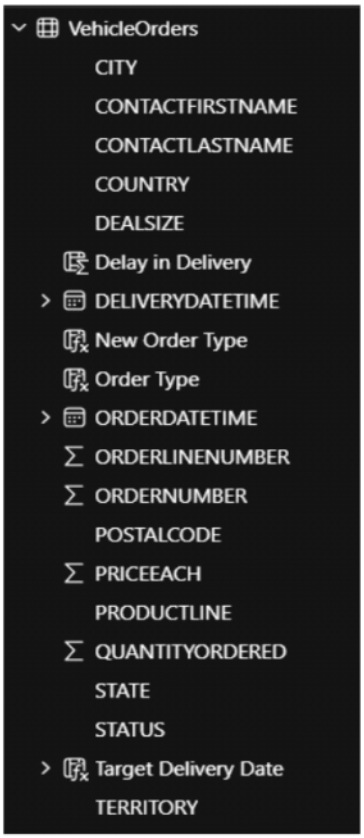
Table

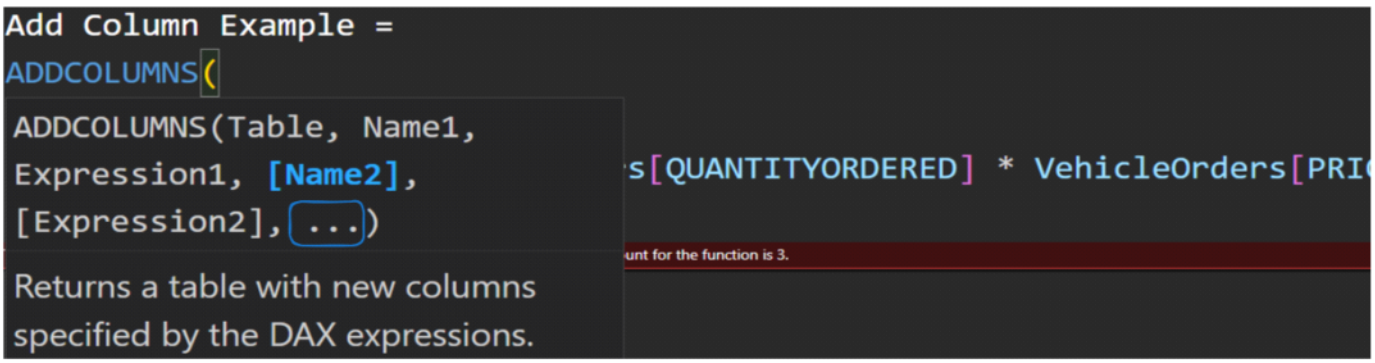


Column Header

VehicleOrder

Formula to create a new column

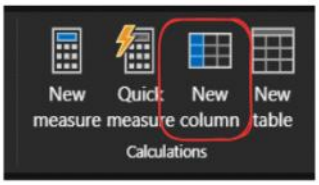




```
Add Column Example =
ADDCOLUMNS(
    VehicleOrders,
    "Order Value" , VehicleOrders[QUANTITYORDERED] * VehicleOrders[PRICEEACH],
    "Order Year", YEAR(VehicleOrders[ORDERDATETIME]),
    "Order Month" ,  FORMAT(VehicleOrders[ORDERDATETIME],"MMMM")
    )
```

RITORY	CONTACTLASTNAME	CONTACTFIRSTNAME	DEALSIZE	Order Type	New Order Type	Target Delivery Date	Delay in Delivery	Order Value	Order Year	Order Month
A	Freyre	Diego	Medium	Average Order	Average Order	15-10-2014 00:00:00	24	₹ 3,400	2014	October
A	Freyre	Diego	Medium	Average Order	Average Order	16-08-2016 00:00:00	0	₹ 4,200	2016	August
A	Freyre	Diego	Medium	Average Order	Average Order	30-08-2014 00:00:00	24	₹ 3,900	2014	August
A	Freyre	Diego	Medium	Average Order	Average Order	19-06-2012 00:00:00	-24	₹ 4,100	2012	June
A	Freyre	Diego	Medium	Average Order	Average Order	17-05-2014 00:00:00	24	₹ 4,600	2014	May
A	Freyre	Diego	Medium	Average Order	Average Order	14-03-2014 00:00:00	24	₹ 4,700	2014	March
A	Freyre	Diego	Medium	Average Order	Average Order	09-05-2014 00:00:00	0	₹ 3,300	2014	May
A	Freyre	Diego	Medium	Average Order	Average Order	11-05-2016 00:00:00	48	₹ 2,900	2016	May
A	Freyre	Diego	Medium	Average Order	Average Order	04-06-2012 00:00:00	-24	₹ 3,600	2012	June
A	Freyre	Diego	Medium	Average Order	Average Order	15-09-2013 00:00:00	0	₹ 4,000	2013	September
A	Freyre	Diego	Medium	Average Order	Average Order	26-05-2013 00:00:00	0	₹ 3,800	2013	May
A	Freyre	Diego	Medium	Average Order	Average Order	30-03-2013 00:00:00	48	₹ 3,900	2013	March
A	Freyre	Diego	Medium	Average Order	Average Order	14-09-2012 00:00:00	-24	₹ 4,100	2012	September
A	Freyre	Diego	Medium	Average Order	Average Order	15-09-2013 00:00:00	24	₹ 4,000	2013	September
A	Freyre	Diego	Medium	Average Order	Average Order	23-10-2013 00:00:00	0	₹ 4,100	2013	October

Var & Return → Use when to create a new column [Calculated Column]



Motorcycle : 10%
Classic-Cars : 15%
Other-Products : 20%

Create a new column name 'Discount Price' based on different ProductLine.

15% DiscountPrice

PRICEEACH	ORDERLINENUMBER	ORDERDATETIME	DELIVERYDATETIME	STATUS	PRODUCTLINE
$100.00	8	19-05-2014 23:07:00	21-05-2014 11:19:59	Shipped	Classic Cars
$100.00	11	25-11-2014 01:04:00	25-11-2014 07:56:06	Shipped	Classic Cars
$100.00	1	13-10-2014 00:33:00	14-10-2014 15:46:41	Shipped	Classic Cars
$100.00	12	14-08-2016 23:02:00	16-08-2016 17:27:35	Shipped	Classic Cars
$100.00	16	28-08-2014 00:16:00	29-08-2014 15:53:17	Shipped	Classic Cars
$100.00	9	17-06-2012 23:51:00	20-06-2012 23:46:07	Shipped	Trucks and Buses
$100.00	5	15-05-2014 23:47:00	16-05-2014 09:08:01	Shipped	Trucks and Buses
$100.00	5	26-09-2013 23:42:00	27-09-2013 02:26:05	Shipped	Trucks and Buses
$100.00	5	12-03-2014 00:54:00	13-03-2014 17:57:38	Shipped	Classic Cars
$100.00	15	07-05-2014 01:19:00	09-05-2014 18:31:03	Shipped	Classic Cars
$100.00	10	09-05-2016 00:47:00	09-05-2016 02:47:22	Shipped	Classic Cars
$100.00	2	02-06-2012 23:47:00	05-06-2012 04:30:35	Shipped	Vintage Cars
$100.00	7	13-09-2013 23:41:00	15-09-2013 22:52:02	Shipped	Vintage Cars
$100.00	6	24-05-2013 00:33:00	26-05-2013 02:35:03	Shipped	Classic Cars
$100.00	2	28-03-2013 01:26:00	28-03-2013 14:00:36	Shipped	Vintage Cars
$100.00	9	12-09-2012 01:12:00	15-09-2012 00:02:15	Shipped	Classic Cars
$100.00	8	04-11-2013 00:58:00	04-11-2013 17:34:58	Shipped	Classic Cars
$100.00	4	13-09-2013 00:39:00	14-09-2013 10:38:05	Shipped	Classic Cars
$100.00	4	21-10-2013 00:56:00	23-10-2013 16:51:09	Shipped	Classic Cars
$100.00	12	12-09-2016 22:55:00	15-09-2016 06:48:36	Shipped	Trucks and Buses

```
1 Discounted Price =
2 VAR BasePrice = VehicleOrders[PRICEEACH] 100
3 VAR Discount = 0.85
4 IF(VehicleOrders[PRODUCTLINE] = "Motorcycles", 0.90,        20% discount
5     IF(VehicleOrders[PRODUCTLINE] = "Classic Cars" , 0.85,0.80))
6 Return BasePrice * Discount
```

UNTRY	TERRITORY	CONTACTLASTNAME	CONTACTFIRSTNAME	DEALSIZE	Order Type	New Order Type	Target Delivery Date	Delay in Delivery	Discounted Price
ain	EMEA	Freyre	Diego	Medium	Regular Order	Regular Order	21-05-2014	0	$85
ain	EMEA	Freyre	Diego	Medium	Regular Order	Regular Order	27-11-2014	48	$85
ain	EMEA	Freyre	Diego	Medium	Average Order	Average Order	15-10-2014	24	$85
ain	EMEA	Freyre	Diego	Medium	Average Order	Average Order	16-08-2016	0	$85
ain	EMEA	Freyre	Diego	Medium	Average Order	Average Order	30-08-2014	24	$85
ain	EMEA	Freyre	Diego	Medium	Average Order	Average Order	19-06-2012	-24	$80
ain	EMEA	Freyre	Diego	Medium	Average Order	Average Order	17-05-2014	24	$80
ain	EMEA	Freyre	Diego	Medium	Bulk Order	Bulk Order	28-09-2013	24	$80
ain	EMEA	Freyre	Diego	Medium	Average Order	Average Order	14-03-2014	24	$85
ain	EMEA	Freyre	Diego	Medium	Average Order	Average Order	09-05-2014	0	$85

1 = 100% - 15% = 85% == 0.85

```
Discounted Price =
VAR BasePrice = VehicleOrders[PRICEEACH]
VAR Discount =
    SWITCH(
        TRUE(),
        VehicleOrders[PRODUCTLINE] = "Motorcycles" , 0.90,
        VehicleOrders[PRODUCTLINE] = "Classic Cars" , 0.85,
        0.80
    )
Return BasePrice * Discount
```

All % of contribution

ALL(Table or Column Name)

it will remove the filters

```
CALCULATE(Expression, [Filter1],
[Filter2], ...)
Evaluates an expression in a context modified
by filters.
```

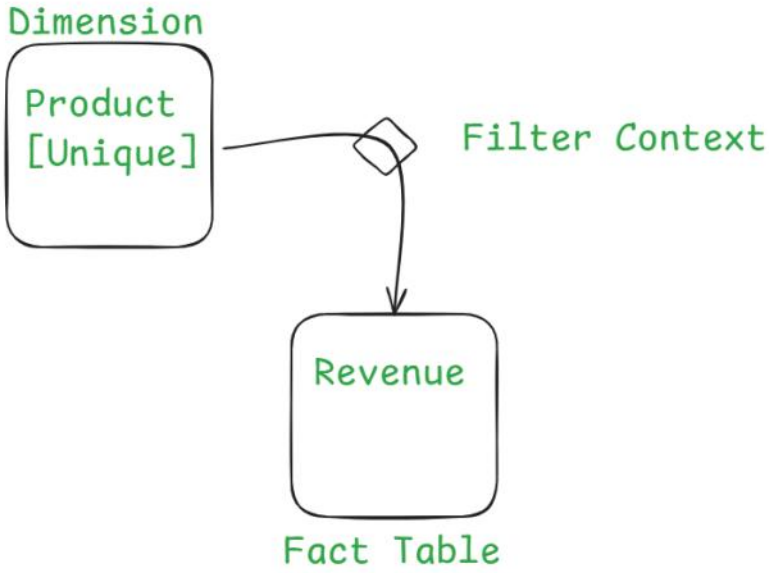
Measures

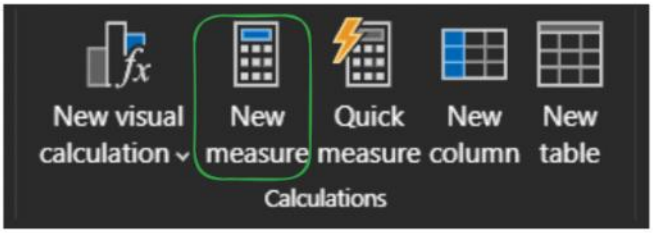
```
productLine = Vintage Car = 20   100   20%
              Classic Car = 35   100   35%
              Motorcycles = 10   100
              Planes      = 25   100
              Train       = 05   100
              Ship        = 05   100
                                100
```

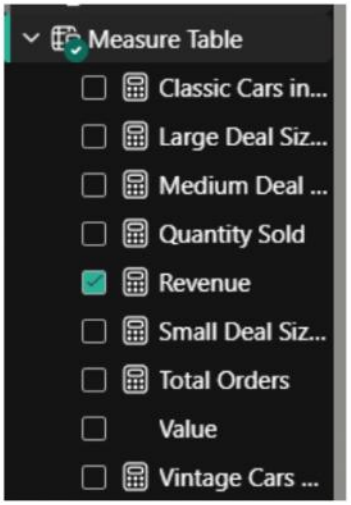
10+25+10+15+20+30+40+50 = 200

10/200 = 5%

PRODUCTLINE	Revenue
Classic Cars	$29,68,546.40
Motorcycles	$9,71,086.29
Planes	$8,77,942.21
Ships	$6,77,940.40
Trains	$2,03,804.26
Trucks and Buses	$9,47,355.18
Vintage Cars	$16,44,212.05
Total	**$82,90,886.79**

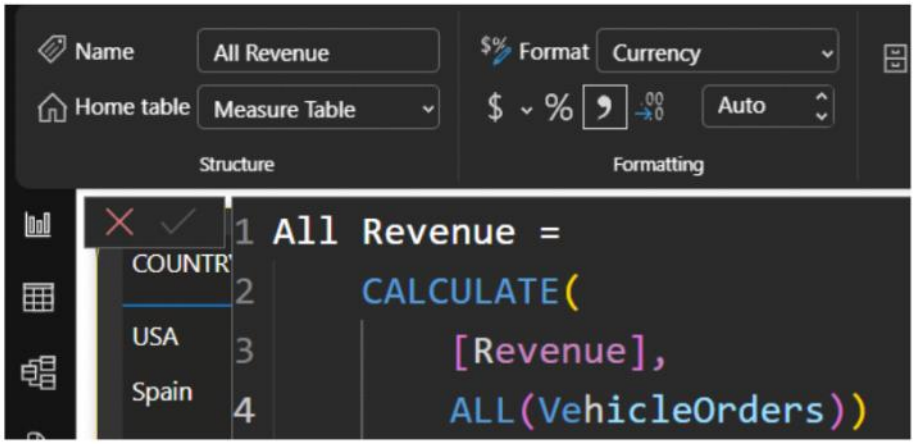






All -> to remove filter

```
ALL([TableNameOrColumnName],
[ColumnName1], ...)
```



PRODUCTLINE	Revenue	All Revenue
Classic Cars	$29,68,546.40	$82,90,886.79
Motorcycles	$9,71,086.29	$82,90,886.79
Planes	$8,77,942.21	$82,90,886.79
Ships	$6,77,940.40	$82,90,886.79
Trains	$2,03,804.26	$82,90,886.79
Trucks and Buses	$9,47,355.18	$82,90,886.79
Vintage Cars	$16,44,212.05	$82,90,886.79
Total	**$82,90,886.79**	**$82,90,886.79**

% of Contribution

Divide()

Overall Revenue

[Use 'All Revenue' as a denominator to calculate the % of contribution]

Revenue , All Revenue

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

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

```
DIVIDE(
```

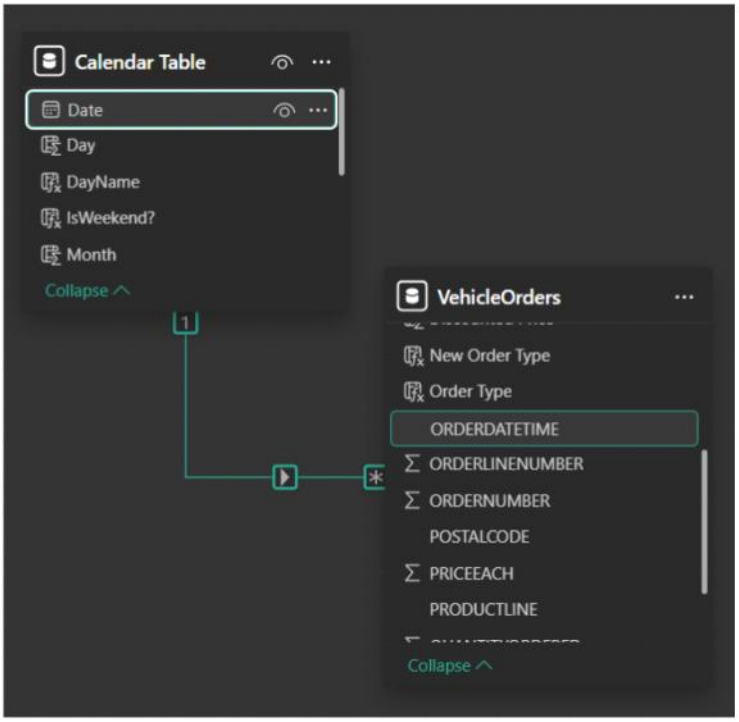
```
DIVIDE(Numerator, Denominator,
[AlternateResult])
Safe Divide function with ability to handle
divide by zero case.
DIVIDE(
    [Revenue],
    [All Revenue],
```

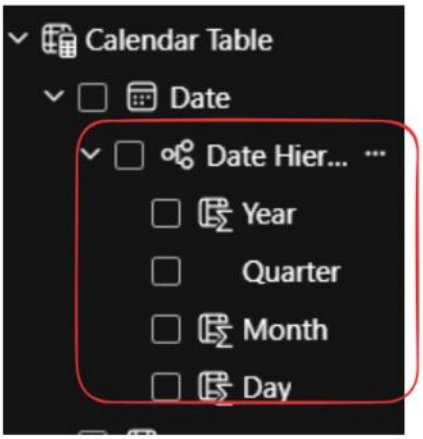

```
1 Revenue Contribution % =
2 DIVIDE(
3     [Revenue],
4     [All Revenue],
5     "-")
```

PRODUCTLINE	Revenue	All Revenue	Revenue Contribution %
Classic Cars	$29,68,546.40	$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	$6,77,940.40	$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%
Vintage Cars	$16,44,212.05	$82,90,886.79	19.83%
Total	**$82,90,886.79**	**$82,90,886.79**	**100.00%**

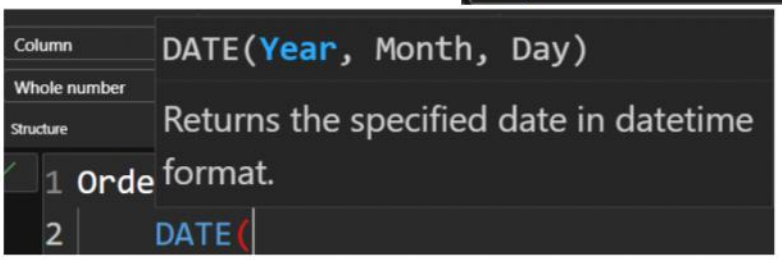
Time Intelligence — Trend Axis


```
TotalYTD()    Year
TotalQTD()    Quarter
TotalMTD()    Month
```

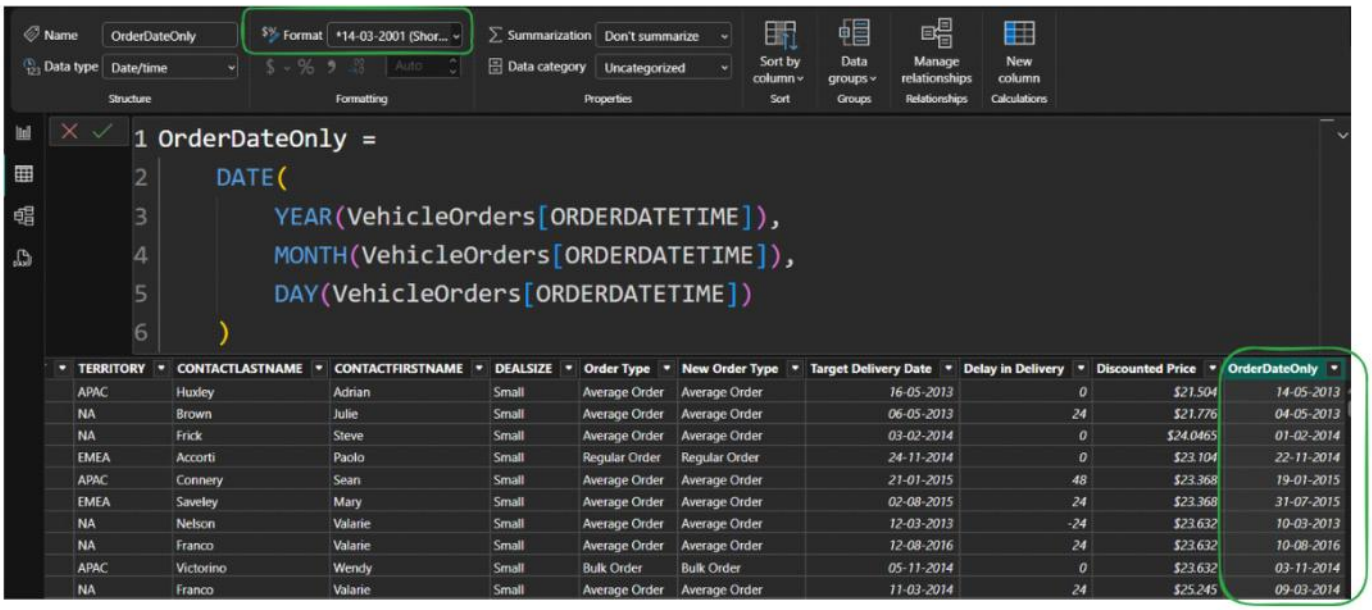




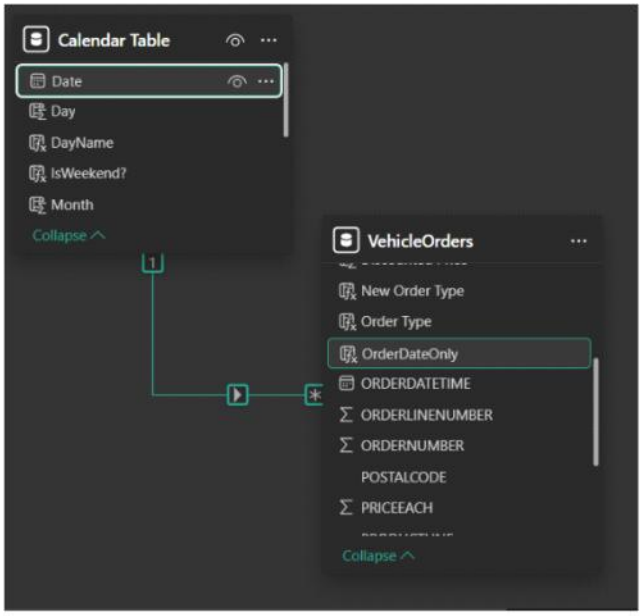
Year	Revenue
	$82,37,505.75
2013	$10,319.84
2014	$26,388.60
2015	$8,400.00
2016	$6,888.14
2017	$1,384.46
Total	$82,90,886.79



YYYY-MM-DD



TERRITORY	CONTACTLASTNAME	CONTACTFIRSTNAME	DEALSIZE	Order Type	New Order Type	Target Delivery Date	Delay in Delivery	Discounted Price	OrderDateOnly
APAC	Huxley	Adrian	Small	Average Order	Average Order	16-05-2013	0	$21.504	14-05-2013
NA	Brown	Julie	Small	Average Order	Average Order	06-05-2013	24	$21.776	04-05-2013
NA	Frick	Steve	Small	Average Order	Average Order	03-02-2014	0	$24.0465	01-02-2014
EMEA	Accorti	Paolo	Small	Regular Order	Regular Order	24-11-2014	0	$23.104	22-11-2014
APAC	Connery	Sean	Small	Average Order	Average Order	21-01-2015	48	$23.368	19-01-2015
EMEA	Saveley	Mary	Small	Average Order	Average Order	02-08-2015	24	$23.368	31-07-2015
NA	Nelson	Valarie	Small	Average Order	Average Order	12-03-2013	-24	$23.632	10-03-2013
NA	Franco	Valarie	Small	Average Order	Average Order	12-08-2016	24	$23.632	10-08-2016
APAC	Victorino	Wendy	Small	Bulk Order	Bulk Order	05-11-2014	0	$23.632	03-11-2014
NA	Franco	Valarie	Small	Average Order	Average Order	11-03-2014	24	$25.245	09-03-2014



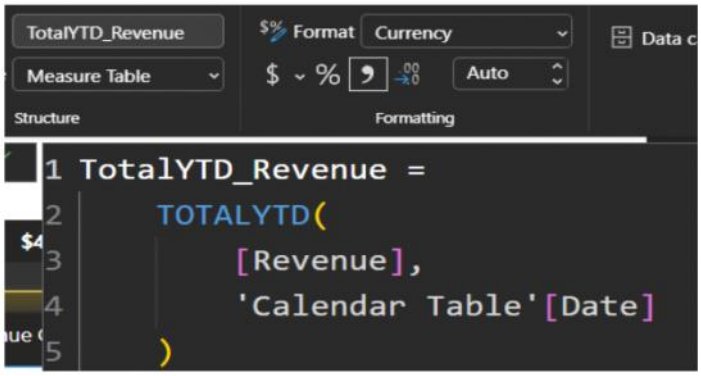
Year	Revenue
2012	$14,19,198.15
2013	$21,39,088.35
2014	$22,31,063.90
2015	$14,30,868.61
2016	$9,35,126.94
2017	$1,35,540.84
Total	**$82,90,886.79**

Year	Quarter	Month	Day	Revenue
2012	**Qtr 1**	**January**	1	$2,200.00
			3	$4,600.00
			5	$4,200.00
			11	$1,237.88
			13	$3,400.00
			15	$5,400.00
			16	$1,958.88
			19	$5,643.70
			23	$2,700.00
			25	$2,491.86
			29	$5,859.31
			31	$4,100.00
			Total	**$43,791.63**

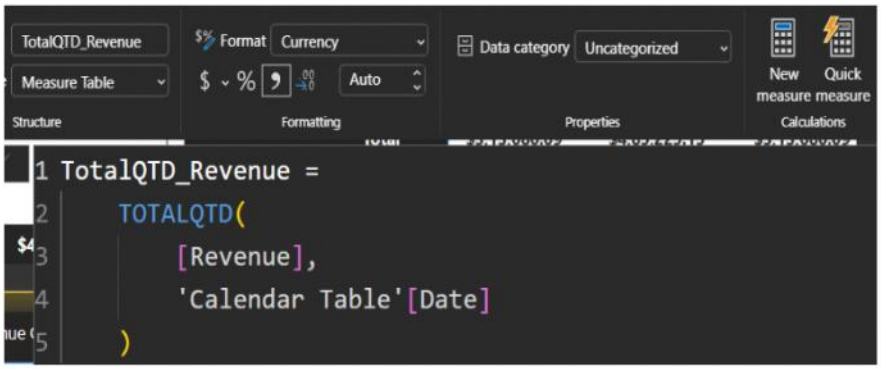
```
TotalYTD_Revenue =
    TOTALYTD(
```

```
TOTALYTD(Expression, Dates,
[Filter], [YearEndDate])
```

Evaluates the specified expression over the interval which begins on the first day of the year and ends with the last date in the specified date column after applying specified filters.



Year	Quarter	Month	Revenue	TotalYTD_Revenue
2012	Qtr 1	January	$43,791.63	$43,791.63
		February	$51,414.89	$95,206.52
		March	$76,338.54	$1,71,545.06
		Total	**$1,71,545.06**	**$1,71,545.06**
	Qtr 2	April	$77,575.37	$2,49,120.43
		May	$97,243.33	$3,46,363.76
		June	$1,38,861.39	$4,85,225.15
		Total	**$3,13,680.09**	**$4,85,225.15**
	Qtr 3	July	$1,38,678.06	$6,23,903.21
		August	$1,56,443.92	$7,80,347.13
		September	$1,52,451.17	$9,32,798.3
		Total	**$4,47,573.15**	**$9,32,798.3**
	Qtr 4	October	$1,68,564.59	$11,01,362.89
		November	$1,73,886.79	$12,75,249.68
		December	$1,43,948.47	$14,19,198.15
		Total	**$4,86,399.85**	**$14,19,198.15**
	Total		**$14,19,198.15**	**$14,19,198.15**
2013	Qtr 1	January	$1,79,418.39	$1,79,418.39
		February	$1,66,943.58	$3,46,361.97
		March	$1,56,196.94	$5,02,558.91
		Total	**$5,02,558.91**	**$5,02,558.91**
	Qtr 2		**$4,40,466.15**	**$9,43,025.06**
	Qtr 3		**$5,44,175.59**	**$14,87,200.65**
	Qtr 4		**$6,51,887.70**	**$21,39,088.35**
	Total		**$21,39,088.35**	**$21,39,088.35**
2014			**$22,31,063.90**	**$22,31,063.9**



Year	Quarter	Month	Revenue	TotalYTD_Revenue	TotalQTD_Revenue
2012	Qtr 1	January	$43,791.63	$43,791.63	$43,791.63
		February	$51,414.89	$95,206.52	$95,206.52
		March	$76,338.54	$1,71,545.06	$1,71,545.06
		Total	**$1,71,545.06**	**$1,71,545.06**	**$1,71,545.06**
	Qtr 2	April	$77,575.37	$2,49,120.43	$77,575.37
		May	$97,243.33	$3,46,363.76	$1,74,818.7
		June	$1,38,861.39	$4,85,225.15	$3,13,680.09
		Total	**$3,13,680.09**	**$4,85,225.15**	**$3,13,680.09**
	Qtr 3	July	$1,38,678.06	$6,23,903.21	$1,38,678.06
		August	$1,56,443.92	$7,80,347.13	$2,95,121.98
		September	$1,52,451.17	$9,32,798.3	$4,47,573.15
		Total	**$4,47,573.15**	**$9,32,798.3**	**$4,47,573.15**
	Qtr 4	October	$1,68,564.59	$11,01,362.89	$1,68,564.59
		November	$1,73,886.79	$12,75,249.68	$3,42,451.38
		December	$1,43,948.47	$14,19,198.15	$4,86,399.85