---------- Pick() , Ceil() , ----------

```
Pick(Ceil(Rand()*4), 'Received',  'Approved', 'Pending', 'Denied')
Match([Månad],'Jan','Feb','Mar','Apr','May','Jun','Jul','Aug','Sep','Oct','Nov','Dec') as MånadNr,
```

//Ceil avrundar värdet till hösta heltal
// pick väljer en av värdena 'Received', 'Approved', 'Pending', 'Denied' beroende på första indata (Ceil....)

---------- FieldValue () , Peek() ----------

```
FieldValue(field_name , elem_no)
```
FieldValue('First name','1') Finds value of row number '1' in the field 'First Name'

```
Peek(field_name[, row_no[, table_name ] ])
```
Peek() finds the value of a field in a table for a row that has already been loaded or that exists in internal memory.

---------- Mapping ----------

Map:
MAPPING LOAD * INLINE [
ID, Status
1,Received
2,Approved
3,Pending
4,Denied
];

Data:
LOAD
ApplyMap('Map',Ceil(Rand()*4)) AS Status
Autogenerate xx;

---------- LookUp ----------

```
Lookup('Category', 'ProductID', ProductID, 'ProductList')
Lookup(1, 2, 3, 4)
```

1. Värdena i den kolumn som ska tas från LookUp tabellen och fyllas in i destination tabellen
2. Värdena som ska matchas till (i LookUp tabellen)
3. Värdena i destinationstabellen som ska matchas till LookUp tabellen
   (Det kolumn som ligger i samma tabell som man fyller i)
4. Tabellen som värdena i punkt 1 ska tas

---------- IterNo(), RecNo(), RowNo() ----------

IterNo() används som räknare inom while loopar
RowNo() ger radnummer
RecNo() anväds som räknare för Autogenerate

#TempTest:

```
load * inline [
FIELD
one
two
three
];

FOR Each a in FieldValueList('FIELD')
Test:
LOAD
'$(a)' &'-'&RecNo() as NEWFIELD,
'$(a)' &'-'&RowNo() as NEWFIELD2 ,
'$(a)' &'-'&IterNo() as NEWFIELD3
AutoGenerate 2
while IterNo()<4;
NEXT a

Drop table #TempTest;
```

---------- sum({1}sales) vs Total(Sum(sales)) ----------

```
====================
Sales:
Load * Inline
[
  Customer, Sales, Brand
  A, 100, B1
  B, 120, B2
  C, 90, B1
  D, 110, B2
];
====================
```

Use Text objects to understand the logic...

=SUM(Sales)
The above expression gives you 420 but it will change according to your selection on Customer or Brand.

=SUM({1}Sales)
The above expression gives you 420 but it will not change according to your selection on Customer or Brand.
So the answer would be 420 even after selecting any dimension

=SUM(Total Sales)
The above expression will give you Total Sales ignoring dimension but if you select any dimension, it will change accordingly. SUM(Total Sales) is useful if you want to show Total Sales against each line in Pivot or Straight Table or in any other objects.

Create a Pivot Table
Dimensions
Customer
Brand

Expressions
SUM(Total Sales)
SUM(Total <Brand> Sales)
Here second expression will give you Total Sales Brand wise....

=SUM(All Sales)

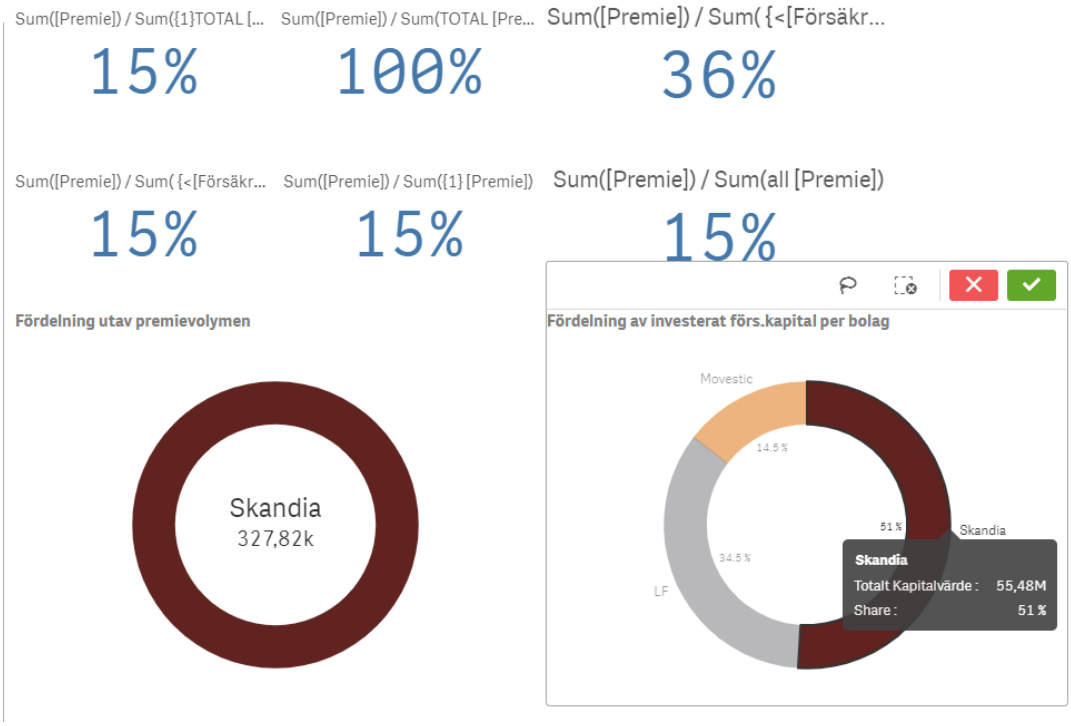
Same as SUM({1}Sales).....

Sum({1}TOTAL [Premie]) *Detta visar totala värden I hela data*

Sum({<[Försäkringsbolag]>} ALL [Premie])
Sum({1} [Premie])
Sum(all [Premie])

Sum(TOTAL [Premie])
Den ändras med slicersval

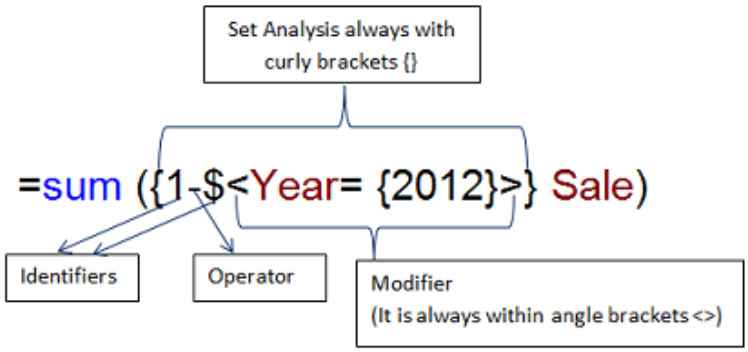
Sum({<[Försäkringsbolag]>} TOTAL [Premie])
Den ändras med alla slicersval men inte med {<[Försäkringsbolag]>} Slicer.



Example	Result
sum({$<OrderDate = DeliveryDate>} Sales)	Returns the sales for the current selection where OrderDate = DeliveryDate.
sum({1<Region = {US}>} Sales)	Returns the sales for region US, disregarding the current selection.
sum({$<Region = >} Sales)	Returns the sales for the selection, but with the selection in *Region* removed.
sum({<Region = >} Sales)	Returns the same as the example above. When the set to modify is omitted, $ is assumed.
sum({$<Year={2000}, Region={"U*"}>} Sales)	Returns the sales for the current selection, but with new selections both in *Year* and in *Region*.

https://help.qlik.com/en-US/qlikview/12.0/Subsystems/Client/Content/ChartFunctions/SetAnalysis/set-analysis-expressions.htm

- Identifier
- Operator
- Modifier



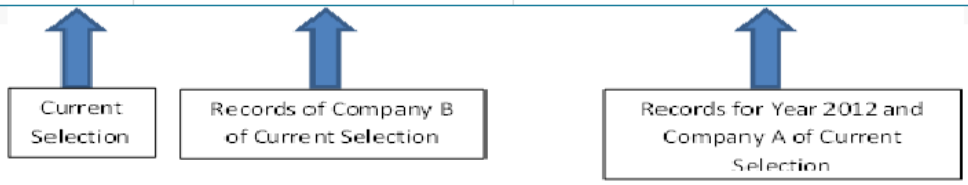
Expressions	Results
=sum ({1} Sale)	Return total sales of the application irrespective of selection, it will not disregard dimensions.
=sum ({$} Sale)	Return sales for current selection
=sum ({$1} Sale}	Return the sale of previous selection

The Modifier in <> overwrite the first identifier:

Expressions	Results
=Sum ({$<Company_Name= {'A'}>} Sale)	Return sales of Company A of current selection.
=sum ({1<Company_Name= {'A'}>} Sale)	Return sales of Company A irrespective of selection
=sum ({1-$<Company_Name= {'A'}>} Sale)	Return sales of Company A excluding current selection
=Sum ({$<Year= {2012}, Company_Name= {'A'}>} Sale)	Return sales of Company A of year 2012
=sum({$<Company_Name={'A','B'}>}Sale)	Return sales of Company A and B for Current selection
=sum({ $ < Year= > } Sale)	Return sales for all three years of current selection

Year
2011 2012 2013

Company_Name	Sum({$}Sale)	=sum({$<Company_Name={'B'}>}Sale)	=sum({$<Year={2012},Company_Name={'A'}>}Sale)
A	1000	0	1000
B	1000	1000	0
C	1000	0	0



Dollar Sign Expansion:

If we want to compare current year sale with previous year, previous year sales should reflect values in relation to current selection of year. For example if current selection of year is 2012, previous year should be 2011 and for current selection of year 2013, previous year is 2012.

```
"=Sum ({$<Year = {$ (=Max (Year)-1)} >} Sale) "
```

Above expression always returns sale for previous year. Here $ sign (Font color red) is used to evaluate the value for previous year. $ sign is used to evaluate expression and to use variables in set modifiers. If we have variable that holds last year value **(vLASTYEAR)** then expression can be written as:

```
"=Sum ({$vLASTYEAR)} >} Sale) "
```

Indirect SET ANALYSIS: Function P() and E()

Let us take a scenario, where we want to show current sales of the companies who had sales last year.

Expression should be similar like:

```
=sum({$<Year={$(=Max(Year))},Company_Name={Companies who had sales last year}> } Sale)
```

First we have to identify companies who had sales last year. To fix this problem, we will use function P() that is used to identify values within a field and function E() that exclude values within a field.

Expressions	Result
Company_Name=p(Company_Name)	All companies who had sales across year (2011 t0 2013)
Company_Name=P({<Year={2012}>} Company_Name)>})	All companies who had sales in year (2012)
Company_Name= P({<Year={$(=Max(Year)-1)}>} Company_Name)	All companies who had sales in previous year

Finally, we have expression:

```
=sum({<Year={$(=Max(Year))},Company_Name=P({<Year={$(=Max(Year)-1)}>}Company_Name)>}Sale)
```

https://www.analyticsvidhya.com/blog/2014/01/set-analysis-qlikview/

Set analysis - ignores filters on all fields but one

sum({1<FieldToKeep=P(FieldToKeep)>}Fieldname)

---------- SUM(Total Value) Aggr(nodistinct) ----------

```
TempTest:
load * inline [
ColA, ColB, Value
A,    a,    200
A,    b,    250
B,    a,    300
A,    b,    450
C,    b,    400
C,    c,    500
];
```

ColA	ColB	Value	=sum(Value)	=Sum(Total <ColB> Value)	=Sum(Total Value)	=Aggr(sum(Value), ColB)	=Aggr(Nodistinct sum(Value), ColB)
Totals			**2100**	**2100**	**2100**	**-**	**-**
A	b	450	450	1100	2100	-	1100
A	b	250	250	1100	2100	1100	1100
A	a	200	200	500	2100	500	500
B	a	300	300	500	2100	-	500
C	c	500	500	500	2100	500	500
C	b	400	400	1100	2100	-	1100

=Aggr(sum(Value), ColA)	=Aggr(Nodistinct sum(Value), ColA)	=Aggr({<ColB ={'b','a'} , ColA=-{"b"} >} nodistinct sum(Value), ColA, ColB)
-	-	-
-	900	700
-	900	700
900	900	200
300	300	-
-	900	-
900	900	400

Sum({<[1]>} TOTAL <2> [Premie])

{<[1] ={'x'}>} *summan Filtreras med x dvs bara dem som innehåller x får summan av Premie*
Om man skriver {<[1]>} *eller* {<[1]=>} *istället då används för alla värde oavsett slicervar.*

TOTAL gör att summan görs av hela kolumnen (grupperingar tas bort) och <2> *gör gruppering enligt värdena i kolumnen (t.ex.).*

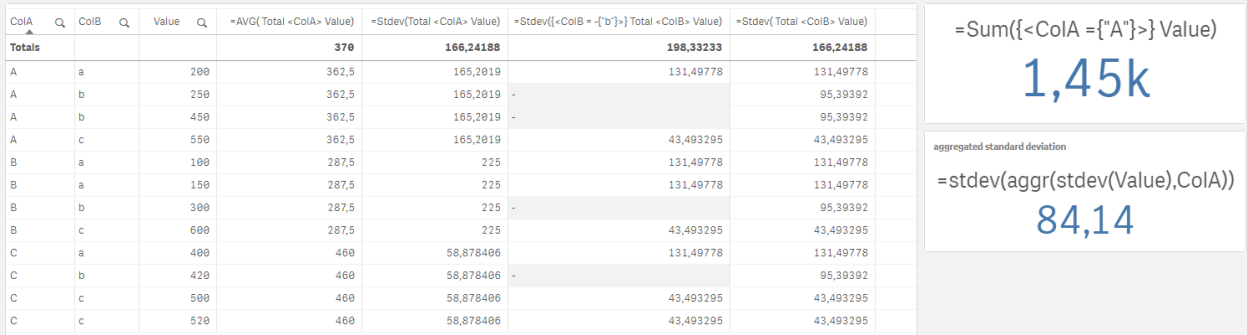
Above(total x) kan skjuta x ett steg neråt. Utan total ska grupperingen påverka det. Om man skriver Above(total x,1,3) då detta ger tillbaka tre värde ovan samma rad.

ColA	ColB	Value	=Aggr(Nodistinct sum({1} Value), ColA, ColB)	=Aggr(sum(Value), ColB)	=Aggr(Nodistinct sum(Value), ColB)	=Aggr(sum(Value), ColA)	=Aggr(Nodistinct sum(Value), ColA)	=Aggr({<ColB ={'b','a'} , ColA=-{'b'} >} nodistinct sum(Value), ColA, ColB)
Totals			-	-	-	-	-	-
A	a	200	200	850	850	1450	1450	200
A	b	250	700	1420	1420	-	1450	700
A	b	450	700	-	1420	-	1450	700
A	c	550	550	2170	2170	-	1450	-
B	a	100	250	-	850	1150	1150	-
B	a	150	250	-	850	-	1150	-
B	b	300	300	-	1420	-	1150	-
B	c	600	600	-	2170	-	1150	-
C	a	400	400	-	850	1840	1840	400
C	b	420	420	-	1420	-	1840	420
C	c	500	1020	-	2170	-	1840	-
C	c	520	1020	-	2170	-	1840	-

ColA	ColB	Value	=sum(Value)	=Aggr(Nodistinct sum({1} Value), ColA, ColB)	=(Aggr(nodistinct above(total sum({1} Value)),ColA,ColB))	= above(Total sum(Total <ColA,ColB> Value))	=Sum(Total <ColB> Value)	=Sum(Total Value)
Totals			**4440**	-	-	-	**4440**	**4440**
A	a	200	200	200	-	-	850	4440
A	b	250	250	700	200	200	1420	4440
A	b	450	450	700	200	700	1420	4440
A	c	550	550	550	700	700	2170	4440
B	a	100	100	250	550	550	850	4440
B	a	150	150	250	550	250	850	4440
B	b	300	300	300	250	250	1420	4440
B	c	600	600	600	300	300	2170	4440
C	a	400	400	400	600	600	850	4440
C	b	420	420	420	400	400	1420	4440
C	c	500	500	1020	420	420	2170	4440
C	c	520	520	1020	420	1020	2170	4440

2 conditions within 1 expression

=COUNT ({< UDATE = {'>=$(=Date(vStartDate))<=$(=Date(vEndDate))'} , SCORECARDNUMBER = {'>=$(=ScorecardStart)<=$(=ScoreCardEnd)'} >} DOCUMENT_COUNT)



ColA	ColB	Value	=AVG(Total <ColA> Value)	=Stdev(Total <ColA> Value)	=Stdev({<ColB = -{'b'}>} Total <ColB> Value)	=Stdev(Total <ColB> Value)
Totals			**370**	**166,24188**	**198,33233**	**166,24188**
A	a	200	362,5	165,2019	131,49778	131,49778
A	b	250	362,5	165,2019	-	95,39392
A	b	450	362,5	165,2019	-	95,39392
A	c	550	362,5	165,2019	43,493295	43,493295
B	a	100	287,5	225	131,49778	131,49778
B	a	150	287,5	225	131,49778	131,49778
B	b	300	287,5	225	-	95,39392
B	c	600	287,5	225	43,493295	43,493295
C	a	400	460	58,878406	131,49778	131,49778
C	b	420	460	58,878406	-	95,39392
C	c	500	460	58,878406	43,493295	43,493295
C	c	520	460	58,878406	43,493295	43,493295

https://help.qlik.com/en-US/sense/September2018/Subsystems/Hub/Content/Sense_Hub/ChartFunctions/ColorFunctions/color-functions-charts.htm

=Colormix1 ((Value/ MAX(Total Value)) , RGB (255, 150, 100) , RGB (100, 150, 255))

=Colormix2 ((Value/ MAX(Total Value)-0.5)*2 ,RGB (255, 100, 0) , RGB (0, 150, 100),RGB (0, 0, 0))

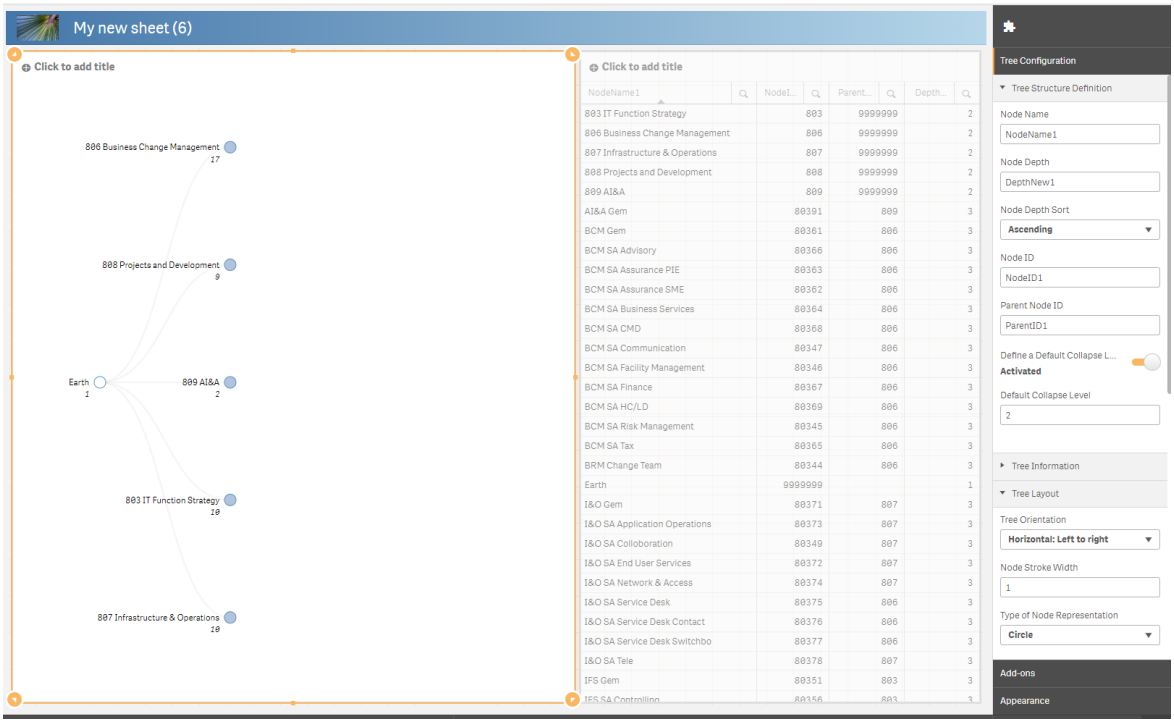
//=ColorMapJet ((((Value-Min(Total Value)+0.01)/Max(Total Value))))

Colorized each dimension in the pivot table::::

```
=IF( Dimensionality()= 1
        , RGB (250,250,230)        //Yellow
            ,IF( Dimensionality()= 2
                ,RGB(230,250,230)// Green
                    ,IF( Dimensionality()= 3
                        , RGB(230,250,250) //Blue
                            , RGB (250,230,230) //Red


                )))
```

---------- Hierarchy ----------



Test4:

```
Load distinct
   Num#([Kostnadsställe]) AS NodeID1,
   Num#(left("Function Area",3))  As ParentID1,//Num#(left([Kostnadsställe],3)) As ParentID1,
   [KostnadsställeNamn] AS NodeName1
Resident DimOrganisation;
Concatenate(Test4)
Load
          Num#(left([Function Area],3)) AS NodeID1,
   9999999 As ParentID1,
   [Function Area] As NodeName1
RESIDENT DimOrganisation;
Concatenate(Test4)
LOAD * inline
[
NodeID1, ParentID1, NodeName1
9999999, , Earth
];

Hierarchy (NodeID1, ParentID1, NodeName1, ParentName1, NodeName1, PathName1, '\', DepthNew1)
Load * Resident Test4;
```

autonumber(expression[, AutoID]**)**

This script function returns a unique integer value for each distinct evaluated value of *expression,* The expression can be composite from some fields. (field1&field2….)

Hierarchy:

```
Hierarchy(BolagsID, ParentID, Bolagsnamn, Parent, Bolagsnamn, PathName, '\', Depth)
LOAD
```

```
   Bolagsnamn,
   AutoNumber(Bolagsnamn) as BolagsID,
   if(Ägarbolag <> 'Koncernmoder',AutoNumber(Ägarbolag)) as ParentID
   //AutoNumber(Ägarbolag) as ParentID
FROM [lib://30.2.TAX/8.Import\Uppsalavisualisering.xlsx]
(ooxml, embedded labels, header is 1 lines, table is [Qlikförteckning Bolag])
where len(trim(Bolagsnamn)) > 0 ;
```

---------- vissa Definition ----------

variabelnamn, definition

"BU" "Affärsenhet"

"CR", "Client responsible, kundansvarig"

"Intäkt (R12)", "Upparbetat värde senaste 12 månader"

"Marknadspenetration", "Andel företag/koncerner som är PwC-kunder av alla företag/koncerner"

"Omsättning", " Med omsättning avses ett företags eller en organisations totala försäljning (såväl kontant som fakturerad) under en viss tidsperiod, vanligen per år."

"Proposition", "Beskrivning av affärens område"

"Prospect", "Företag på marknaden där varken upparbetade intäkter eller affärsmöjligheter har registrerats under de senaste 12 månaderna"

"Segment (bolag)", "Sätts utifrån företagets nettoomsättning enligt CMD-specifik klassificering"

"Segment (koncern)", "Sätts utifrån koncernens nettoomsättning enligt CMD-specifik klassificering"

"Target", "Ett företag där aktiv bearbetning pågår och affärsmöjlighet finns registrerad"

"Tier (bolag)", "Sätts utifrån företagets nettoomsättning enligt CMD-specifik klassificering"

"Tier (koncern)", "Sätts utifrån koncernens nettoomsättning enligt CMD-specifik klassificering"

"Uppskattat värde", "Säljarens uppskattning av affärens värde ("Estimated value")"

"Viktat värde", "Ett värde beräknat från uppskattad affärsvärde och vilken fas försäljningen befinner sig i ("weighted value")"

---------- For, Next loop ----------

```
For i= NoOfTables()-1 to 0 step -1
        LET vTable = TableName($(i));

    IF WildMatch('$(vTable)', 'Data*') THEN
                LEFT JOIN ([Fact]) LOAD * RESIDENT [$(vTable)];
                DROP TABLE [$(vTable)];
                ENDIF
Next i
```

---------- To ignore Excel Header ----------

```
*Header line
Col1,Col2
a,B
c,D
```

Using the **header is 1 lines** specifier, the first line will not be loaded as data. In the example, the embedded labels specifier tells Qlik Sense to interpret the first non-excluded line as containing field labels.

```
LOAD Col1, Col2
```

```
FROM 'lib://files/header.txt'
(txt, embedded labels, delimiter is ',', msq, header is 1 lines);
```

---------- rangesum(above(sum(Field),0, 3))----------

https://community.qlik.com/docs/DOC-4252

Aggr(Above(Sum(Sales)),Year,Month)

displays the value from the previous month from the same year. But if you change the order of the dimensions, as in

Aggr(Above(Sum(Sales)),Month,Year)

the expression will display the value from the *same* month from the *previous* year. The only difference is the order of the dimensions. The latter expression is sorted first by Month, then by Year. The result can be seen below:

Sum(Sales)				
Year	Month	Sum(Sales)	Only(Aggr(Above(total Sum({$<Year=,Month=>}Sales)), Year,Month))	Only(Aggr(Above(Sum({$<Year=,Month=>}Sales)), Month,Year))
2012	Jan	783	-	-
2012	Feb	676	783	-
2012	Mar	547	676	-
2012	Apr	753	547	-
2012	May	587	753	-
2012	Jun	786	587	-
2012	Jul	915	786	-
2012	Aug	992	915	-
2012	Sep	954	992	-
2012	Oct	1018	954	-
2012	Nov	969	1018	-
2012	Dec	1087	969	-
2013	Jan	878	1087	783
2013	Feb	785	878	676
2013	Mar	788	785	547
2013	Apr	828	788	753
2013	May	770	828	587

An Aggr() table is always sorted by the load order of the dimensions, one by one. This means that you can change the meaning of Above() by changing the order of the dimensions.
With this, I hope that you understand the Above() function better.

---------- Class (Skapa gruppering intervall)----------

```
// Skapa gruppering
 DIM_TotalAvgift:
 LOAD
    _FörsäkringsnummerSK,
    //Försäkringsnummer,
    "Total portföljavgift",
    class([Total portföljavgift]*100, 0.5, 'x') As Portföljsavgiftintervall

 Resident TempDIM_TotalAvgift;
//Create master item dimensions:
=If (WildMatch([Portföljsavgiftintervall], '0*' ), Dual( '< 1,00 %',1) ,
            IF(WildMatch([Portföljsavgiftintervall], '1 <*' ), Dual('1,00 % - 1,49 %', 2) ,
                        IF(WildMatch([Portföljsavgiftintervall], '1,5*' ), Dual('1,50 % - 2,00 %',3) ,
            Dual('> 2,00 %', 4 ) )))
```

```
// en annan sätt att göra det
 DIM_TotalAvgift:
 LOAD
    _FörsäkringsnummerSK,
    "Total portföljavgift",

            If("Total portföljavgift"*100 < 1, dual('< 1,00 %',0.0001) ,
                    IF("Total portföljavgift"*100 > 2, dual('> 2,00 %',4) ,
                            IF("Total portföljavgift"*100 >= 1 AND "Total portföljavgift"*100 < 1.5 , dual('1,00% - 1,49%', 1)  ,
                            dual('1,50% - 2,00%',2)
                    ) ) ) as "Portföljsavgiftintervall"
```

---------- (Pareto Chart) ----------

Assume we have a data source with this fields : Product / Qty

1- Make a combo chart with
- Dimension -> Product
- Measure -> Sum(Qty)
- Measure -> Accumulation % formula : RangeSum(Above(Sum(Qty), 0, RowNo())) / Sum(TOTAL Qty)
- Measure -> 80 % line formula : 0.8

Set the Accumulation % and the 80% line as Line charts on the secondary axis with a "# ##0%" number format.

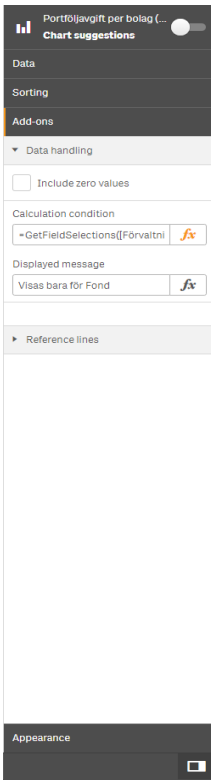
2- Sort by Product (decrease) with a formula : Sum(Qty)

---------- (Hide Chart) ----------

Om man vill dölja en ritning med vissa filteringar eller slicer då kan man göra det genom att skriva koden:

=GetFieldSelections([Förvaltningsform]) = 'Fond' Or GetFieldSelections([Förvaltningsform]) = ('Fond' And 'Trad')

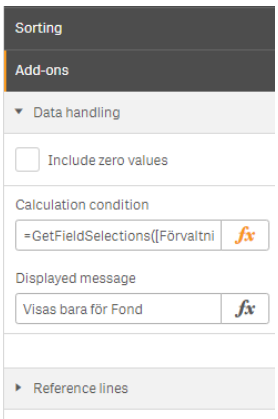
In I calculation condition på Add-ons. Då visualiseringen blir grått för inte vald slicer (här för Trad).



Man kan även göra det helt enkelt skriva koder som nollställer datat vid filteringer så som:

```
=if(GetFieldSelections(Förvaltningsform) = 'Fond' or isnull(GetFieldSelections(Förvaltningsform))
, Avg({<Förvaltningsform = {'Fond'}>} [Total portföljavgift])
//,Avg( [Total portföljavgift])*0)
,0)
```

Som visar noll för Trad. Om man av bockar ”Include Zero values” då visas inte visualiseringen.



---------- (Linear, Power and Exponential Trend line) ----------

För att skapa linjär linje på en chart:

```
DimVerDatum:
left Keep (FactResultat)
LOAD
   VerDatum,
   ...
   AutoNumber(Year(VerDatum)*12 + Month(VerDatum),1) As MonthSeq

FROM [$(vG.TransformPath)vu_FAB_DimVerDatum.qvd]
(qvd);


GroupTestTemp:
Load
VerDatum,
MonthSeq
Resident DimVerDatum;
join
load
VerDatum,
(Utfall*-1) As Budget
Resident FactResultat;
// Group By  MonthSeq;

GroupTest:
Load
MonthSeq,
Sum(Budget) As Budget
Resident GroupTestTemp
Group By MonthSeq;


TrendTable:
load

//MonthSeq,
LINEST_M(Budget,MonthSeq) as Slope,
LINEST_B(Budget,MonthSeq) As Intersect
Resident GroupTest;
//Group by Kostnadsställe//, MonthSeq;
//Order by MonthSeq;
```

Sedan skapar man en chart med datum som Dimension och Budget och Slope*MonthSeq+Intersect som measures.

Resultatet är det samma om man skapar en measure med :

```
=linest_m(total aggr(Sum(Utfall*-1),MonthSeq), MonthSeq)*MonthSeq + linest_b(total aggr(Sum(Utfall*-
1),MonthSeq),MonthSeq)
```

Power Trend line: y = c * POW(x , b)

```
=EXP(linest_B(total log(aggr(fAbs(Sum(Utfall)),MonthSeq)), log(MonthSeq)))*POW((MonthSeq) , linest_M(total
log(aggr(fAbs(Sum(Utfall)),MonthSeq)),log(MonthSeq)))
```

Exponential Trend line: y = c * POW(e , b * x)

```
=EXP(linest_B(total log(aggr(fAbs(Sum(Utfall)),MonthSeq)), MonthSeq))*POW(e(),(MonthSeq) * linest_M(total
log(aggr(fAbs(Sum(Utfall)),MonthSeq)),MonthSeq))
```