

EXPRESSIONS OF SSAS CHEAT SHEET

MDX TIME EXPRESSIONS

STATEMENTS	EXPRESSIONS	STATEMENTS	EXPRESSIONS	STATEMENTS	EXPRESSIONS	STATEMENTS	EXPRESSIONS
To get previous month in the Time dimension	SELECT ClosingPeriod([Date].[Calendar].[Month],[Date].[Calendar].DefaultMember) ON 0 FROM [Sales Summary] WHERE ([Measures].[Sales Amount])			To create a calculated member for AVG sales over last 3 years based on NOW () function	CREATE MEMBER CurrentCube.Measures.[Avg3Years] AS Avg({ParallelPeriod([Date].[Date].[Date Yr], 3, StrToMember("[Date].[Date].&[" + Format(now(), "yyyyMMdd") + ""]) : StrToMember("[Date].[Date].&[" + Format(now(), "yyyyMMdd") + ""]) }, [Measures].[Sales Qty]);	MDX query to show the year level data for all years except the last one, and month level data for the last year	SELECT {NULL: ClosingPeriod([Date].[Calendar].[Calendar Year],[Date].[Calendar].DefaultMember).PrevMember , DESCENDANTS(ClosingPeriod([Date].[Calendar].[Calendar Year],[Date].[Calendar].DefaultMember), [Date].[Calendar].[Month]) } ON 0 FROM [Sales Summary]
To display the first day of last month in the cube	SELECT OpeningPeriod([Date].[Calendar].[Date], ClosingPeriod([Date].[Calendar].[Month],[Date].[Calendar].DefaultMember)) ON 0 FROM [Sales Summary]	To calculate monthly average of one year	WITH MEMBER [Measures].[AvgVal] AS Avg(Descendants([Date].[Calendar].[Calendar Year].&[2004] , [Date].[Calendar].[Month]) , [Measures].[Internet Order Count]) SELECT {[Measures].[AvgVal]} ON 0 FROM [Adventure Works] WHERE ([Product].[Product Model Lines].[Model Name].&[Classic Vest])	To calculate monthly average of a year including empty months	WITH MEMBER [Measures].[AvgVal] AS Avg(Descendants([Date].[Calendar].[Calendar Year].&[2004] , [Date].[Calendar].[Month]) , CoalesceEmpty([Measures].[Internet Order Count], 0)) SELECT {[Measures].[AvgVal]} ON 0 FROM [Adventure Works] WHERE ([Product].[Product Model Lines].[Model Name].&[Classic Vest])	To calculate sales for 12month to date in MDX	WITH MEMBER [Measures].[Last 12 Mth Order Count] AS SUM(ClosingPeriod([Date].[Calendar].[Month],[Date].[Calendar].[All Periods]).Lag(12 : ClosingPeriod([Date].[Calendar].[Month],[Date].[Calendar].[All Periods]) , [Measures].[Order Count]) SELECT [Measures].[Last 12 Mth Order Count] ON 0 FROM [Adventure Works]
MDX query to get the last month loaded in the cube	SELECT ClosingPeriod([Date].[Calendar].[Month],[Date].[Calendar].DefaultMember) ON 0 FROM [Sales Summary]			To create a calculated member for AVG sales over last 3 years based on NOW () function	CREATE MEMBER CurrentCube.Measures.[Avg3Years] AS Avg({ParallelPeriod([Date].[Date].[Date Yr], 3, StrToMember("[Date].[Date].&[" + Format(now(), "yyyyMMdd") + ""]) : StrToMember("[Date].[Date].&[" + Format(now(), "yyyyMMdd") + ""]) }, [Measures].[Sales Qty]);	To return lists of months from start of year to specified month	SELECT YTD([Date].[Calendar].[Month].&[2003]&[8]) ON 0 FROM [Sales Summary]
MDX query that uses execution date/time as a parameter	SELECT {[Measures].[Internet Order Count]} ON 0 , {StrToMember("[Date].[Date].[" + Format(now(), "MMMM dd, yyyy") + ""]) } ON 1 FROM [Direct Sales];			To order the date dimension members in descending order in a report	SELECT {[Measures].[Reseller Order Quantity]} ON 0 , ORDER(Tail([Date].[Calendar].[Calendar Year].Members,3) , [Date].[Calendar].CurrentMember.Member_Key, DESC) ON 1 FROM [Adventure Works]		
To get the latest months and previous years same month data	SELECT (ClosingPeriod([Date].[Calendar].[Month],[Date].[Calendar].DefaultMember) , ParallelPeriod([Date].[Calendar].[Calendar Year], 1 , ClosingPeriod([Date].[Calendar].[Month],[Date].[Calendar].DefaultMember)) } ON 0 FROM [Sales Summary]	To get the Previous year to date values	WITH MEMBER [Measures].[Current YTD] AS SUM(YTD([Date].[Calendar].CurrentMember), [Measures].[Internet Order Quantity]) MEMBER [Measures].[Last YTD] AS SUM(YTD(ParallelPeriod([Date].[Calendar].[Calendar Year], 1 , [Date].[Calendar].CurrentMember)) , [Measures].[Internet Order Quantity]) SELECT {[Measures].[Current YTD] , [Measures].[Last YTD] } ON 0 FROM [Adventure Works] WHERE ([Date].[Calendar].[Date].[March 22, 2004])	To load the first month of last year in the cube	SELECT OpeningPeriod([Date].[Calendar].[Month], ClosingPeriod([Date].[Calendar].[Calendar Year],[Date].[Calendar].DefaultMember)) ON 0 FROM [Sales Summary];		
To get count of months with sales amount > 0 in defined period	WITH Member [Measures].[Months With Above Zero Sales] AS COUNT(FILTER(DESCENDANTS([Date].[Calendar].[Calendar Year].&[2003]: [Date].[Calendar].[Calendar Year].&[2004]) , [Date].[Calendar].[Month]) , [Measures].[Sales Amount] > 0)) SELECT {[Measures].[Sales Amount], [Measures].[Months With Above Zero Sales]} ON 0 , [Product].[Product Model Lines].[Product Line].Members on 1 FROM [Adventure Works] WHERE ([Date].[Calendar].[Calendar Year].&[2003]: [Date].[Calendar].[Calendar Year].&[2004])	To calculate monthly average of one year	WITH MEMBER [Measures].[AvgVal] AS Avg(Descendants([Date].[Calendar].[Calendar Year].&[2004] , [Date].[Calendar].[Month]) , [Measures].[Internet Order Count]) SELECT {[Measures].[AvgVal]} ON 0 FROM [Adventure Works] WHERE ([Product].[Product Model Lines].[Model Name].&[Classic Vest])				

