**DAX Cheat Sheet**

| **Problem** | **Calculation Expression** |
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| Total Sales Calculation | **Calculated measure using SUM to aggregate a column.**  **Total Sales** = SUM('TableName'[SalesAmount]) |
| Total Cost Calculation | **Calculated measure using SUM to aggregate a column.**  **Total Cost** = SUM('TableName'[Cost]) |
| Profit Calculation | **Calculated measure using two previously created calculated measures to determine profit.**  **Profit** = [Total Sales] - [Total Cost] |
| Profit Margin | **Calculated measure using two previously created calculated measures to determine profit margin, the DIVIDE function is used to perform the division.**  **Profit Margin** = DIVIDE( [Profit], [Total Sales]) |
| Transaction Count | **Calculated measure that returns a count of all rows in a table, ultimately, many times this simple calculation is used to return transaction counts.**  **Transactions** = COUNTROWS('Table') |
| Related Table Count | **Returns the total rows in a related table. For example, total transactions by Product.**  **Transactions** = COUNTROWS(RELATEDTABLE('TABLE')) |

**Month To Date Sales**

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| **Problem** | **Calculation Expression** |
| MTD Sales | **Calculates Total Sales for all days in the current month up to the maximum day in the selection.**  **MTD Sales** = TOTALMTD( [Total Sales], *'DateTable'[DateColumn]* ) |
| MTD Sales (Direct Query) | **Calculates Total Sales for all days in the current month up to the maximum day in the selection.**  **MTD Sales** =   CALCULATE (  [Total Sales],  FILTER (  ALL ( 'DateTable' ),  *'DateTable'[DateYear]* = MAX ( *'DateTable'[DateYear]* ) &&  *'DateTable'[DateMonth]* = MAX ( *'DateTable'[DateMonth]* ) &&  *'DateTable'[Date]* <= MAX ( *'DateTable'[Date]* )   )  ) |

**Year To Date Sales**

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| **Problem** | **Calculation Expression** |
| YTD Sales | **Calculates Total Sales for all days in the year up to the maximum day in the selection.**  **YTD Sales** = TOTALYTD( [Total Sales], *'DateTable'[DateColumn]* ) |
| YTD Sales (Fiscal Calendar) | **This calculation uses an optional third parameter specifying the fiscal year end date.**  **YTD Sales** = TOTALYTD( [Total Sales], *'DateTable'[DateColumn], "05/31"* ) |
| YTD Sales (Direct Query) | **Calculates Total Sales for all days in the year up to the maximum day in the selection.**  **YTD Sales:** =   CALCULATE (  [Total Sales],  FILTER (  ALL ( 'DateTable' ),  *'DateTable'[DateYear]* = MAX ( *'DateTable'[DateYear]* ) &&  *'DateTable'[Date]* <= MAX ( *'DateTable'[Date]* )   )  ) |

**Prior Year Sales**

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| **Problem** | **Calculation Expression** |
| Prior Year Profit | **Prior Year Profit** = CALCULATE ( [Profit], SAMEPERIODLASTYEAR*'DateTable'[DateColumn]* ) |
| Prior Year Profit (Direct Query) | **Calculates Profit for all days in the Year prior to the last year in the selection. Limited to the last day of the selection.**  **Prior Year Profit** =   CALCULATE (  [Profit],  FILTER (  ALL ( 'DateTable' ),  *'DateTable'[Year]* = MAX ( *'DateTable'[Year]* ) - 1   )  ) |
| Year over Year Profit | **Calculated measure using two previously created calculated measures to determine YoY profit.**  **YoY Profit** = [Profit] - [Prior Year Profit] |
| Last Year YTD Sales | **Last YTD Sales** = CALCULATE ( [YTD Sales], SAMEPERIODLASTYEAR(*'DateTable'[DateColumn]* ) ) |
| Total Sales for all Countries | **This calculation uses calculate to return all countries in the calculation regardless of the filter context.**  **Total Sales All Countries** = CALCULATE ( [Total Sales], ALL(*'Geography Table'[Country]* ) ) |
| Percent of Total Calculation | **This calculation uses two measures previously created to create a percent of total calculation.**  **Percent of Total** = DIVIDE([Total Sales], [Total Sales All Countries]) |

**Moving Totals**

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| **Problem** | **Calculation Expression** |
| Rolling 12 Month Sales | **Calculated measure that returns a rolling 12 months total for Profit.**  **Rolling 12 Months Profit** =   CALCULATE ( [Profit],  DATESBETWEEN(*'DateTable'[DateColumn]* ,  NEXTDAY(  SAMEPERIODLASTYEAR(  LASTDATE(*DateTable'[DateColumn]* ))),  LASTDATE(*'DateTable'[DateColumn]*))) |
| 7 Day Moving Average Profit | **This calculation generates the daily moving average. The number of days can be changed accordingly.**  **7 Day Moving Average** =   AVERAGEX (  FILTER (  ALL ( 'DateTable' ),  'DateTable'[FullDateAlternateKey] > ( MAX ('DateTable'[FullDateAlternateKey] ) - 7 ) &&  'DateTable'[FullDateAlternateKey] > <= MAX ('DateTable'[FullDateAlternateKey] )   ),  [Profit]) |
| Country Rank | **Calculated measure to rank a specific column in a table by a measure. In this measure Country from the geography table is being ranked by the measure [Total Sales].**  **Country Rank** = RANKX( ALL ('GeographyTable'[Country]), [Total Sales],,,Skip) |