## **Calculated Metric Syntax**

Calculated metric formulas are written in MDX syntax, but only support a small subset of MDX functions and operators. They can only operate on the existing metrics in the model, and must return a numeric value. You can do simple math operations to combine metrics, or simple comparison operations to return a given metric value when certain conditions are met.

## **Syntax Specifics**

If you are used to creating formulas in Tableau, be aware that the formulas for calculated metrics in AtScale use the unique names for dimensional hierarchies, levels, and secondary attributes, not the label/display name. The label is the name that appears in Tableau. The unique name is the name that is used for the object in queries.

For example, a single Date dimension might have two hierarchies, Date Month Hierarchy and Date Week Hierarchy, which contain the following levels.

Date Month Hierarchy	Date Week Hierarchy
Year	Year
Quarter	Week
Month	Day
Day	

Although both hierarchies have levels named Year and Day, to prevent ambiguities in queries, the levels should have different unique names, as in this example.

Level	Query Name
Date Month Hierarchy/Year	YearMonth
Date Month Hierarchy/Day	DayMonth
Date Month Hierarchy/Year	YearWeek

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Date Month Hierarchy/Day

DayWeek

To see the query name for a hierarchy, level, or secondary attribute, open the **Edit Dimension** panel for its dimension and look for the object in the **Hierarchies** section. The names displayed there are the unique names for each object.