

# SUM Function

Computes the sum of all values found in all row values in a column. Input column can be of Integer or Decimal.

- If a row contains a missing or null value, it is not factored into the calculation. If no numeric values are found in the source column, the function returns 0.
- When used in a `pivot` transform, the function is computed for each instance of the value specified in the `group` parameter. See *Pivot Transform*.

For a version of this function computed over a rolling window of rows, see *ROLLINGSUM Function*.

## Basic Usage

```
pivot value:SUM(myRating) group:postal_code limit:1
```

**Output:** Generates a two-column column containing the unique values of the `postal_code` column and the sum of the group of values from the `myRating` column for the `postal_code` value. The `limit` parameter defines the maximum number of output columns.

## Syntax and Arguments

```
pivot value:SUM(function_col_ref) [group:group_col_ref] [limit:limit_count]
```

Argument	Required?	Data Type	Description
<code>function_col_ref</code>	Y	string	Name of column to which to apply the function

For more information on the `group` and `limit` parameters, see *Pivot Transform*.

For more information on syntax standards, see *Language Documentation Syntax Notes*.

### **function\_col\_ref**

Name of the column the values of which you want to calculate the sum. Column must contain Integer or Decimal values.

- Literal values are not supported as inputs.
- Multiple columns and wildcards are not supported.

### **Usage Notes:**

Required?	Data Type	Example Value
Yes	String (column reference)	<code>myValues</code>

## Examples

**Tip:** For additional examples, see *Common Tasks*.

You have the following set of orders for two months, and you are interested in identifying the set of colors that have been sold for each product for each month and the total quantity of product sold for each month.

**Source:**

OrderId	Date	Item	Qty	Color
1001	1/15/15	Pants	1	red
1002	1/15/15	Shirt	2	green
1003	1/15/15	Hat	3	blue
1004	1/16/15	Shirt	4	yellow
1005	1/16/15	Hat	5	red
1006	1/20/15	Pants	6	green
1007	1/15/15	Hat	7	blue
1008	4/15/15	Shirt	8	yellow
1009	4/15/15	Shoes	9	brown
1010	4/16/15	Pants	1	red
1011	4/16/15	Hat	2	green
1012	4/16/15	Shirt	3	blue
1013	4/20/15	Shoes	4	black
1014	4/20/15	Hat	5	blue
1015	4/20/15	Pants	6	black

**Transform:**

To track by month, you need a column containing the month value extracted from the date:

```
set col:Date value:DATEFORMAT(Date, 'MMM yyyy')
```

You can aggregate the data in your dataset, grouped by the reformatted Date values, and apply the LIST function to the Color column. In the same aggregation, you can include a summation function for the Qty column:

```
pivot value: LIST(Color, 1000) SUM(Qty) group: Date limit:1
```

**Results:**

Date	list_Color	sum_Qty
Jan 2015	["green","blue","blue","red","green","red","yellow"]	28
Apr 2015	["brown","blue","red","yellow","black","blue","black","green"]	38

If needed, you can unpack the list array data using the following:

```
unnest col:list_Color
```