

# 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*.

**Wrangle vs. SQL:** This function is part of Wrangle , a proprietary data transformation language. Wrangle is not SQL. For more information, see *Wrangle Language*.

## Basic Usage

```
sum(myRating)
```

**Output:** Returns the sum of the group of values from the `myRating` column.

**Wrangle vs. SQL:** This function is part of Wrangle , a proprietary data transformation language. Wrangle is not SQL. For more information, see *Wrangle Language*.

## Syntax and Arguments

```
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*.

This example demonstrates you to extract values from one column of an array into a new column.

### Functions:

Item	Description
LIST Function	Extracts the set of values from a column into an array stored in a new column. This function is typically part of an aggregation.
UNIQUE Function	Extracts the set of unique values from a column into an array stored in a new column. This function is typically part of an aggregation.
DATEFORMAT Function	Formats a specified Datetime set of values according to the specified date format. Source values can be a reference to a column containing Datetime values.

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

### Transformation:

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

<b>Transformation Name</b>	Edit column with formula
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<b>Parameter: Columns</b>	Date
<b>Parameter: Formula</b>	DATEFORMAT(Date, 'MMM yyyy')

You can use the following transform to check the list of unique values among the colors:

<b>Transformation Name</b>	Pivot columns
<b>Parameter: Row labels</b>	Date
<b>Parameter: Values</b>	unique(Color, 1000)
<b>Parameter: Max number of columns to create</b>	10

Date	unique_Color
Jan 2015	["green","blue","red","yellow"]
Apr 2015	["brown","blue","red","yellow","black","green"]

Delete the above transform.

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:

<b>Transformation Name</b>	Pivot columns
<b>Parameter: Row labels</b>	Date
<b>Parameter: Values</b>	list(Color, 1000),sum(Qty)
<b>Parameter: Max number of columns to create</b>	10

### 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