

# ABS Function

Computes the absolute value of a given numeric value. The value can be a Decimal or Integer literal or a reference to a column containing numeric values.

## Basic Usage

### Column reference example:

```
derive type:single value:ABS(MyInteger) as:'abs_MyInteger'
```

**Output:** Generates the new `abs_MyInteger` column containing the absolute value of each value found in the `MyInteger` column.

### Numeric literal example:

```
delete row:(ABS(MyInteger) == 5)
```

**Output:** Deletes all rows from the dataset in which the absolute value of the entry in the `MyInteger` column is 5.

## Syntax and Arguments

```
derive type:single value:ABS(numeric_value)
```

Argument	Required?	Data Type	Description
<code>numeric_value</code>	Y	string, decimal, or integer	Name of column or Decimal or Integer literal to apply to the function

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

### **numeric\_value**

Name of the column or numeric literal whose absolute value is to be computed.

- Missing input values generate missing results.
- Literal numeric values should not be quoted. Quoted values are treated as strings.
- Multiple columns and wildcards are not supported.

### Usage Notes:

Required?	Data Type	Example Value
Yes	String (column reference) or Integer or Decimal value	-10.5

## Examples

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

### Example - Basic ABS function

#### Source:

Your source data looks like the following, which measures coordinate distances from a fixed point on a grid:

X	Y
-2	4
-6.2	-2
0	-4.2
4	4
15	-0.05

**Transform:**

You can use the following transform to derive the absolute values of these columns, which now measure distance from the fixed point:

```
derive type:single value: ABS(X) as: 'distanceX'
```

```
derive type:single value: ABS(Y) as: 'distanceY'
```

**Results:**

X	Y	distanceX	distanceY
-2	4	2	4
-6.2	-2	6.2	2
0	-4.2	0	4.2
4	4	4	4
15	-0.05	15	0.05

You can then use `POW` and `SQRT` functions to compute the total distance.