

EXAMPLE - Date Difference Functions

This example shows you the functions that can be used to calculate the number of days between two input dates:

- **DATEDIF** - Calculates difference between two input dates for a specified unit of measure. In this example, the unit of measure is day. See *DATEDIF Function*.
- **NETWORKDAYS** - Calculates number of working days between two input dates, assuming a Monday - Friday workweek. See *NETWORKDAYS Function*.
- **NETWORKDAYSINTL** - Calculates number of working days between two input dates with optional specified workweek. see *NETWORKDAYSINTL Function*.
- **WORKDAY** - Calculates the date of a working day that is a specified number of working days before or after a specified date. See *WORKDAY Function*.
- **WORKDAYINTL** - Calculates the date of a working day that is a specified number of working days before or after a specified date, factoring in an optional set of workday schedule for the week. See *WORKDAYINTL Function*.

Source:

The following dataset contains two columns of dates.

- The first column values are constant. This date falls on a Monday.

Date1	Date2
2020-03-09	2020-03-13
2020-03-09	2020-03-06
2020-03-09	2020-03-16
2020-03-09	2020-03-23
2020-03-09	2020-04-10
2020-03-09	2021-03-10

Transformation:

The first transformation calculates the number of raw days between the two dates:

Transformation Name	New formula
Parameter: Formula type	Single row formula
Parameter: Formula	<code>datedif(Date1, Date2, day)</code>
Parameter: New column name	'datedif'

This step computes the number of working days between the two dates. Assumptions:

- Workweek is Monday - Friday.
- There are no holidays.

Transformation Name	New formula
Parameter: Formula type	Single row formula

Parameter: Formula	networkdays(Date1, Date2, [])
Parameter: New column name	'networkDays'

For some, March 17 is an important date, especially if you are Irish. To add St. Patrick's Day to the list of holidays, you could add the following transformation:

Transformation Name	New formula
Parameter: Formula type	Single row formula
Parameter: Formula	networkdays(Date1, Date2, ['2020-03-17'])
Parameter: New column name	'networkDaysStPatricks'

In the following transformation, the NETWORKDAYSINTL function is applied so that you can specify the working days in the week:

Transformation Name	New formula
Parameter: Formula type	Single row formula
Parameter: Formula	networkdaysintl(Date1, Date2, '1000011', [])
Parameter: New column name	'networkDaysIntl'

The following two functions enable you to calculate a specific working date based on an input date and integer number of days before or after it. In the following, the date that is five working days before the Date2 column is computed:

Transformation Name	New formula
Parameter: Formula type	Single row formula
Parameter: Formula	workday(Date2, -5)
Parameter: New column name	'workday'

Suppose you wish to factor in a four-day workweek, in which Friday through Sunday is considered the weekend:

Transformation Name	New formula
Parameter: Formula type	Single row formula
Parameter: Formula	workdayintl(Date2, -5, '0000111')
Parameter: New column name	'workdayintl'

Results:

Date1	Date2	workdayintl	workday	networkDaysIntl	networkDaysStPatricks	networkDays	datedif
2020-03-09	2020-03-13	2020-03-05	2020-03-06	4	5	5	4
2020-03-09	2020-03-06	2020-02-27	2020-02-28	<i>null</i>	<i>null</i>	<i>null</i>	-3

2020-03-09	2020-03-16	2020-03-15	2020-03-09	4	6	6	7
2020-03-09	2020-03-23	2020-03-12	2020-03-16	8	10	11	14
2020-03-09	2020-04-10	2020-04-02	2020-04-03	20	24	25	32
2020-03-09	2021-03-10	2021-03-02	2021-03-03	210	262	263	366