

# EXAMPLE - DATEDIF Function

This example illustrates how to calculate the number of days that have elapsed between the order date and today.

## Function:

Item	Description
DATEDIF Function	Calculates the difference between two valid date values for the specified units of measure.
TODAY Function	Derives the value for the current date in UTC time zone. You can specify a different time zone by optional parameter.
IF Function	The IF function allows you to build if/then/else conditional logic within your transforms.

## Source:

For the orders in the following set, you want to charge interest for those ones that are older than 90 days.

OrderId	OrderDate	Amount
1001	1/31/16	1000
1002	11/15/15	1000
1003	12/18/15	1000
1004	1/15/16	1000

## Transformation:

The first step is to create a column containing today's (03/03/16) date value:

<b>Transformation Name</b>	New formula
<b>Parameter: Formula type</b>	Single row formula
<b>Parameter: Formula</b>	TODAY()
<b>Parameter: New column name</b>	'Today'

You can now use this value as the basis for computing the number of elapsed days for each invoice:

<b>Transformation Name</b>	New formula
<b>Parameter: Formula type</b>	Single row formula
<b>Parameter: Formula</b>	DATEDIF(OrderDate, Today, day)

The age of each invoice in days is displayed in the new column. Now, you want to add a little bit of information to this comparison. Instead of just calculating the number of days, you could write out the action to undertake. Replace the above with the following:

<b>Transformation Name</b>	New formula
<b>Parameter: Formula type</b>	Single row formula

<b>Parameter: Formula</b>	<code>IF((DATEDIF(OrderDate, Today, day) &gt; 90), 'Charge interest', 'no action')</code>
<b>Parameter: New column name</b>	<code>'TakeAction'</code>

To be fair to your customers, you might want to issue a notice at 45 days that the invoice is outstanding. You can replace the above with the following:

<b>Transformation Name</b>	New formula
<b>Parameter: Formula type</b>	Single row formula
<b>Parameter: Formula</b>	<code>IF(DATEDIF(OrderDate, Today, day) &gt; 90, 'Charge interest', IF(DATEDIF(OrderDate, Today, day) &gt; 45), 'Send letter', 'no action'))</code>
<b>Parameter: New column name</b>	<code>'TakeAction'</code>

By using nested instances of the `IF` function, you can generate multiple results in the `TakeAction` column.

For the items that are over 90 days old, you want to charge 5% interest. You can do the following:

<b>Transformation Name</b>	Edit column with formula
<b>Parameter: Columns</b>	Amount
<b>Parameter: Formula</b>	<code>IF(TakeAction == 'Charge interest', Amount * 1.05, Amount)</code>

The above sets the value in the `Amount` column based on the conditional of whether the `TakeAction` column value is `Charge interest`. If so, apply 5% interest to the value in the `Amount` column.

### Results:

OrderId	OrderDate	Amount	Today	TakeAction
1001	1/31/16	1000	03/03/16	no action
1002	11/15/15	1050	03/03/16	Charge interest
1003	12/18/15	1000	03/03/16	Send letter
1004	1/15/16	1000	03/03/16	Send letter