**CALENDAR**

Returns a table with a single column named “Date” that contains a contiguous set of dates. The range of dates is from the specified start date to the specified end date, inclusive of those two dates.

**Syntax**

DAX Copy

CALENDAR(<start\_date>, <end\_date>)

**Parameters**

| **Term** | **Definition** |
| --- | --- |
| start\_date | Any DAX expression that returns a datetime value. |
| end\_date | Any DAX expression that returns a datetime value. |

**Return value**

Returns a table with a single column named “Date” containing a contiguous set of dates. The range of dates is from the specified start date to the specified end date, inclusive of those two dates.

**Example:**

=CALENDAR (DATE (20015, 1, 1), DATE (2025, 12, 31))

=CALENDAR (MINX (Sales, [Date]), MAXX (Forecast, [Date]))

# CALENDARAUTO

Returns a table with a single column named “Date” that contains a contiguous set of dates. The range of dates is calculated automatically based on data in the model.

## Syntax

DAX Copy

CALENDARAUTO([fiscal\_year\_end\_month])

### Parameters

| **Term** | **Definition** |
| --- | --- |
| fiscal\_year\_end\_month | Any DAX expression that returns an integer from 1 to 12. If omitted, defaults to the value specified in the calendar table template for the current user, if present; otherwise, defaults to 12. |

## Return value

Returns a table with a single column named “Date” that contains a contiguous set of dates. The range of dates is calculated automatically based on data in the model.

Example:   
In this example, the MinDate and MaxDate in the data model are July 1, 2010 and June 30, 2011.

CALENDARAUTO() will return all dates between January 1, 2010 and December 31, 2011.

CALENDARAUTO(3) will return all dates between March 1, 2010 and February 28, 2012.

# DATE

Returns the specified date in **datetime** format.

## Syntax

DAX Copy

DATE(<year>, <month>, <day>)

## Return value

Returns the specified date (**datetime)**.

Example:  
=DATE(2009,7,8)

=DATE(08,1,2)

If **day** is greater than the number of days in the month specified, **day** adds that number of days to the first day in the month. The following formula returns the date February 4, 2008:

**Code**

DAX Copy

=DATE(2008,1,35)

**Comment**

If **day** is less than 1, **day** subtracts the magnitude that number of days, plus one, from the first day of the month specified. The following formula returns December 16, 2007:

DAX Copy

=DATE(2008,1,-15)

# DATEDIFF

Returns the count of interval boundaries crossed between two dates.

## Syntax

DAX Copy

DATEDIFF(<start\_date>, <end\_date>, <interval>)

### Parameters

| **Term** | **Definition** |
| --- | --- |
| start\_date | A scalar datetime value. |
| end\_date | A scalar datetime value Return value. |
| interval | The interval to use when comparing dates. The value can be one of the following:  - SECOND - MINUTE - HOUR - DAY - WEEK - MONTH - QUARTER - YEAR |

## Return value

The count of interval boundaries crossed between two dates.

DATEDIFF(MIN( Calendar[Date] ), MAX( Calendar[Date]), MONTH )

DATEDIFF(MIN( Calendar[Date] ), MAX( Calendar[Date]), QUARTER )

DATEDIFF(MIN( Calendar[Date] ), MAX( Calendar[Date]), YEAR )

# DATEVALUE

Converts a date in the form of text to a date in datetime format.

## Syntax

DAX Copy

DATEVALUE(date\_text)

### Parameters

| **Term** | **Definition** |
| --- | --- |
| date\_text | Text that represents a date. |

## Property Value/Return value

A date in **datetime** format.

Example

=DATEVALUE("8/1/2009")

# DAY

Returns the day of the month, a number from 1 to 31.

## Syntax

DAX Copy

DAY(<date>)

### Parameters

| **Term** | **Definition** |
| --- | --- |
| date | A date in **datetime** format, or a text representation of a date. |

## Return value

An integer number indicating the day of the month.

Example:

=DAY([Birthdate])

# EDATE

Returns the date that is the indicated number of months before or after the start date. Use EDATE to calculate maturity dates or due dates that fall on the same day of the month as the date of issue.

## Syntax

DAX Copy

EDATE(<start\_date>, <months>)

### Parameters

| **Term** | **Definition** |
| --- | --- |
| start\_date | A date in **datetime** or **text** format that represents the start date. |
| months | An integer that represents the number of months before or after **start\_date**. |

## Return value

A date (**datetime**).

Example:

=EDATE([TransactionDate],3)

# EOMONTH

Returns the date in **datetime** format of the last day of the month, before or after a specified number of months. Use EOMONTH to calculate maturity dates or due dates that fall on the last day of the month.

## Syntax

DAX Copy

EOMONTH(<start\_date>, <months>)

### Parameters

| **Term** | **Definition** |
| --- | --- |
| start\_date | The start date in **datetime** format, or in an accepted text representation of a date. |
| months | A number representing the number of months before or after the **start\_date**. **Note:** If you enter a number that is not an integer, the number is rounded up or down to the nearest integer. |

## Return value

A date (**datetime**).

Example:

=EOMONTH("March 3, 2008",1.5)

# HOUR

Returns the hour as a number from 0 (12:00 A.M.) to 23 (11:00 P.M.).

## Syntax

DAX Copy

HOUR(<datetime>)

### Parameters

| **Term** | **Definition** |
| --- | --- |
| datetime | A **datetime** value, such as 16:48:00 or 4:48 PM. |

## Return value

An integer number from 0 to 23.

Example:

=HOUR("March 3, 2008 3:00 PM")

# MINUTE

Returns the minute as a number from 0 to 59, given a date and time value.

## Syntax

DAX Copy

MINUTE(<datetime>)

### Parameters

| **Term** | **Definition** |
| --- | --- |
| datetime | A **datetime** value or text in an accepted time format, such as 16:48:00 or 4:48 PM. |

## Return value

An integer number from 0 to 59.

Example:

=MINUTE("March 23, 2008 1:45 PM")

# MONTH

Returns the month as a number from 1 (January) to 12 (December).

## Syntax

DAX Copy

MONTH(<datetime>)

### Parameters

| **Term** | **Definition** |
| --- | --- |
| date | A date in **datetime** or text format. |

## Return value

An integer number from 1 to 12.

Example:

=MONTH("March 3, 2008 3:45 PM")

=MONTH(Orders[TransactionDate])

# NOW

Returns the current date and time in **datetime** format.

The NOW function is useful when you need to display the current date and time on a worksheet or calculate a value based on the current date and time, and have that value updated each time you open the worksheet.

## Syntax

DAX Copy

NOW()

## Return value

A date (**datetime)**.

Example:

=NOW()+3.5

# SECOND

Returns the seconds of a time value, as a number from 0 to 59.

## Syntax

DAX Copy

SECOND(<time>)

### Parameters

| **Term** | **Definition** |
| --- | --- |
| time | A time in **datetime** format, such as 16:48:23 or 4:48:47 PM. |

## Return value

An integer number from 0 to 59.

Example:

=SECOND('Orders'[TransactionTime])

# TIME

Converts hours, minutes, and seconds given as numbers to a time in **datetime** format.

## Syntax

DAX Copy

TIME(hour, minute, second)

### Parameters

| **Term** | **Definition** |
| --- | --- |
| hour | A number from 0 to 23 representing the hour.  Any value greater than 23 will be divided by 24 and the remainder will be treated as the hour value. |
| minute | A number from 0 to 59 representing the minute.  Any value greater than 59 will be converted to hours and minutes. |
| second | A number from 0 to 59 representing the second.  Any value greater than 59 will be converted to hours, minutes, and seconds. |

## Return value

A time (**datetime**).

Example:

=TIME(27,0,0)

=TIME(3,0,0)

# TIMEVALUE

Converts a time in text format to a time in datetime format.

## Syntax

DAX Copy

TIMEVALUE(time\_text)

### Parameters

|  |  |
| --- | --- |
| Term | Definition |
| time\_text | A text string that that represents a certain time of the day. Any date information included in the **time\_text** argument is ignored. |

## Return value

A date (**datetime**).

Example:

=TIMEVALUE("20:45:30")

# TODAY

Returns the current date.

## Syntax

DAX Copy

TODAY()

## Return value

A date (**datetime**).

Example:

=YEAR(TODAY())-1963

# WEEKDAY

Returns a number from 1 to 7 identifying the day of the week of a date. By default the day ranges from 1 (Sunday) to 7 (Saturday).

## Syntax DAX Copy

WEEKDAY(<date>, <return\_type>)

### Parameters

| **Term** | **Definition** |
| --- | --- |
| date | A date in **datetime** format.  Dates should be entered by using the DATE function, by using expressions that result in a date, or as the result of other formulas. |
| return\_type | A number that determines the Return value:  Return type: **1**, week begins on Sunday (1) and ends on Saturday (7). numbered 1 through 7.  Return type: **2**, week begins on Monday (1) and ends on Sunday (7).  Return type: **3**, week begins on Monday (0) and ends on Sunday (6).numbered 1 through 7. |

## Return value

An integer number from 1 to 7.  
Example:  
=WEEKDAY([HireDate]+1)

# WEEKNUM

Returns the week number for the given date and year according to the **return\_type** value. The week number indicates where the week falls numerically within a year.

## Syntax

DAX Copy

WEEKNUM(<date>, <return\_type>)

### Parameters

| **Term** | **Definition** |
| --- | --- |
| date | The date in **datetime** format. |
| return\_type | A number that determines the Return value: use 1 when the week begins on Sunday; use 2 when the week begins on Monday. The default is 1.  Return type: **1**, week begins on Sunday. Weekdays are numbered 1 through 7.  Return type: **2**, week begins on Monday. Weekdays are numbered 1 through 7. |

## Return value

An integer number.

Exmaple:

=WEEKNUM('Employees'[HireDate])

# YEAR

Returns the year of a date as a four digit integer in the range 1900-9999.

## Syntax

DAX Copy

YEAR(<date>)

### Parameters

| **Term** | **Definition** |
| --- | --- |
| date | A date in **datetime** or text format, containing the year you want to find. |

## Return value

An integer in the range 1900-9999.

Example:

=YEAR(TODAY())

=YEAR("March 2007")

# YEARFRAC

Calculates the fraction of the year represented by the number of whole days between two dates. Use the YEARFRAC worksheet function to identify the proportion of a whole year's benefits or obligations to assign to a specific term.

## Syntax

DAX Copy

YEARFRAC(<start\_date>, <end\_date>, <basis>)

### Parameters

| **Term** | **Definition** |
| --- | --- |
| start\_date | The start date in **datetime** format. |
| end\_date | The end date in **datetime** format. |
| basis | (Optional) The type of day count basis to use. All arguments are truncated to integers.  Basis - Description  0 - US (NASD) 30/360  1 - Actual/actual  2 - Actual/360  3 - Actual/365  4 - European 30/360 |

## Return value

A decimal number. The internal data type is a signed IEEE 64-bit (8-byte) double-precision floating-point number.

Example:

=YEARFRAC("Jan 1 2007","Mar 1 2007")

=YEARFRAC(Orders[TransactionDate],Orders[ShippingDate])