EXCEL 2019
EXCEL 365
Date and Time Functions

Compatible

Excel 2019
Excel 2019 for Mac
Excel for Office 365
Excel for Office 365 for Mac
Excel 2016
Excel 2013
Excel 2010
Excel 2007
Excel 2016 for Mac
Excel for Mac 2011
Excel Online
Excel for iPad
Excel for iPhone
Excel for Android tablets
Excel for Android phones
Excel Mobile
Excel Starter 2010

- 2 Pages
- High quality printable
- All grades
- @ School, Work, Home

Functions

DATE
DATEDIF
DATEVALUE
DAY
DAYS
DAYS360
EDATE
EOMONTH
HOUR
ISOWEEKNUM
MINUTE
MONTH
NETWORKDAYS
NETWORKDAYS.INTL
NOW
SECOND
TIME
TIMEVALUE
TODAY
WEEKDAY
WEEKNUM
WORKDAY
WORKDAY.INTL
YEAR
YEARFRAC

EXCEL 2019 - EXCEL 365
Date and Time Functions

CHEATER JOHN®

Using This Cheat Sheet

Function(required,optional) — Additional description

Sample → Result — Tip/Note

Description

Date and Time Functions

DATE(year,month,day)

=DATE(2011,5,15) → 40678

Excel stores dates as sequential serial numbers so that they can be used in calculations. January 1, 1900 is serial number 1, and January 1, 2008 is serial number 39448 because it is 39,447 days after January 1, 1900.

Returns the serial number of a particular date

DATEDIF(start_date,end_date,unit)

"Y" The number of complete years in the period.
"M" The number of complete months in the period.
"D" The number of days in the period.

=DATEDIF(1/1/2001,1/1/2003,"Y") → 2

=DATEDIF(6/1/2001,8/15/2002,"D") → 440

This function is useful in formulas where you need to calculate an age.

Calculates the number of days, months, or years between two dates.

DATEVALUE(date_text)

=DATEVALUE("5/15/2011") → 40678

=DATEVALUE("22-MAY-2011") → 40685

Converts a date in the form of text to a serial number

DAY(serial_number)

=DAY(40678) → 15

=DAY(A1) → 15

	A
1	5/15/2011

Converts a serial number to a day of the month

DAYS(end_date,start_date) Excel 2013

=DAYS(A2,A1) → 343

=DAYS("3/15/11","2/1/11") → 42

	A
1	5/15/2011
2	4/22/2012

Finds the number of days between the end date (15 MAR 2011) and start date (1 FEB 2011). When you enter a date directly in the function, you need to enclose it in quotation marks.

Returns a serial number to a day of the month

DAYS360(end_date,start_date,method)

FALSE U.S. (NASD) method.
TRUE European method.

=DAYS360(A1,A2) → 337

Which is used in some accounting calculations. Use this function to help compute payments if your accounting system is based on twelve 30-day months.

	A
1	5/15/2011
2	4/22/2012

Calculates the number of days between two dates based on a 360-day year (twelve 30-day months).

EDATE(start_date, months)

=EDATE(A1,3) → 8/15/11

=EDATE(A1,-3) → 2/15/11

	A
1	5/15/2011

Use EDATE to calculate maturity dates or due dates that fall on the same day of the month as the date of issue.

Returns the serial no of the date that is the indicated number of months before or after the start date

EOMONTH(start_date, months)

=EOMONTH(A1,-3) → 2/28/11

	A
1	5/15/2011

Use EOMONTH to calculate maturity dates or due dates that fall on the last day of the month.

Returns the serial number of the last day of the month before or after a specified number of months

HOUR(serial_number)

=HOUR(B1) → 16

=HOUR(B2) → 14

=HOUR(B3) → 18

	A	B
1		4:40:24 PM
2		14:20:36
3		0.75

Returns 75% of 24 hours

Time values are a portion of a date value and represented by a decimal number (for example, 12:00 PM is represented as 0.5 because it is half of a day).

Converts a serial number to an hour

ISOWEEKNUM(date) Excel 2013

=ISOWEEKNUM(A1) → 10

	A
1	3/9/2012

Number of the week in the year that 3/9/2012 occurs, based on weeks beginning on the default, Monday (10).

Returns number of the ISO week number of the year for a given date

MINUTE(serial_number)

=MINUTE(A1) → 20

	A
1	14:20:36

The time that contains the minute you want to find. Times may be entered as text strings within quotation marks (for example, "6:45 PM"), as decimal numbers (for example, 0.78125, which represents 6:45 PM), or as results of other formulas or functions (for example, TIMEVALUE("6:45 PM")).

Returns the minutes of a time value. The minute is given as an integer, ranging from 0 to 59.

MONTH(serial_number)

=MONTH(A1) → 5

	A
1	5/15/2011

The date of the month you are trying to find. Dates should be entered by using the DATE function, or as results of other formulas or functions. For example, use DATE(2008,5,23) for the 23rd day of May, 2008. Problems can occur if dates are entered as text.

Returns the month of a date represented by a serial number. The month is given as an integer, ranging from 1 (January) to 12 (December).

NETWORKDAYS(start_date,end_date,holidays)

=NETWORKDAYS(A1,A2) → 245

=NETWORKDAYS(A1,A2,A3) → 244

Holiday

	A
1	5/15/2011
2	4/22/2012
3	11/18/2011

To calculate whole workdays between two dates by using parameters to indicate which and how many days are weekend days, use the NETWORKDAYS.INTL function.

Dates should be entered by using the DATE function, or as results of other formulas or functions. For example, use DATE(2012,5,23) for the 23rd day of May, 2012. Problems can occur if dates are entered as text.

Returns the number of whole working days between start_date and end_date. Working days exclude weekends and any dates identified in holidays.

NETWORKDAYS.INTL(start_date,end_date,weekend,holidays) Excel 2010

1 / Ø	Saturday, Sunday	11	Sunday only
2	Sunday, Monday	12	Monday only
3	Monday, Tuesday	13	Tuesday only
4	Tuesday, Wednesday	14	Wednesday only
5	Wednesday, Thursday	15	Thursday only
6	Thursday, Friday	16	Friday only
7	Friday, Saturday	17	Saturday only

=NETWORKDAYS.INTL(DATE(2006,1,1),DATE(2006,1,31)) → 22

Results in 22 future workdays. Subtracts 9 nonworking weekend days (5 Saturdays and 4 Sundays) from the 31 total days between the two dates. By default, Saturday and Sunday are considered non-working days.

=NETWORKDAYS.INTL(DATE(2006,1,1),DATE(2006,1,31),7) → 23

Returns the number of whole workdays between two dates using parameters to indicate which and how many days are weekend days. Weekend days and any days that are specified as holidays are not considered as workdays.

EXCEL 2019 - EXCEL 365
Date and Time Functions

NOW()

=NOW()	2/27/2019 12:54:55
=NOW()-2.25	2/25/2019 6:54:55

Returns the date and time 2 days and 6 hours ago (-2.25 days ago).

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.**

Returns the serial number of the current date and time.

SECOND(serial_number)

=SECOND(A1)	24
=SECOND(A2)	0

	A
1	4:40:24 PM
2	14:20

Times may be entered as text strings within quotation marks (for example, "6:45 PM"), as decimal numbers (for example, 0.78125, which represents 6:45 PM), or as results of other formulas or functions (for example, TIMEVALUE("6:45 PM")).

Returns the seconds of a time value. The second is given as an integer in the range 0 (zero) to 59.

TIME(hour,minute,second)

A number from 0 to 32767 representing the second. Any value greater than 59 will be converted to hours, minutes, and seconds. For example, TIME(0,0,2000) = TIME(0,33,22) = .023148 or 12:33:20 AM

A number from 0 to 32767 representing the minute. Any value greater than 59 will be converted to hours and minutes. For example, TIME(0,750,0) = TIME(12,30,0) = .520833 or 12:30 PM.

A number from 0 (zero) to 32767 representing the hour. Any value greater than 23 will be divided by 24 and the remainder will be treated as the hour value. For example, TIME(27,0,0) = TIME(3,0,0) = .125 or 3:00 AM.

=TIME(A1,B1,C1)	6:23:45
=TIME(A2,B2,C2)	2:02:02

	A	B	C
1	6	23	45
2	25	61	62

The decimal number returned by TIME is a value ranging from 0 (zero) to 0.99988426, representing the times from 0:00:00 (12:00:00 AM) to 23:59:59 (11:59:59 P.M.)

Returns the decimal number for a particular time.

TIMEVALUE(time_text)

A text string that represents a time in any one of the Microsoft Excel time formats; for example, "6:45 PM" and "18:45" text strings within quotation marks that represent time.

=TIMEVALUE("2:24 AM")	0.10	Decimal part of a day
=TIMEVALUE("6:35 AM")	0.2743	
=TIMEVALUE("22-Aug-2011 6:35 AM")	0.2743	

Converts a time in the form of text to a serial number.

TODAY()

=TODAY()	2/27/2019
=TODAY()+5	3/4/2019
=DAY(TODAY())	27

If the TODAY function does not update the date when you expect it to, you might need to change the settings that control when the workbook or worksheet recalculates. On the **File** tab, click **Options**, and then in the **Formulas** category under **Calculation options**, make sure that **Automatic** is selected.

Returns the serial number of the current date. The serial number is the date-time code used by Excel for date and time calculations.

WEEKDAY(serial_number,return_type)

	A
1	5/15/2011

=WEEKDAY(A1)	1	Sunday
=WEEKDAY(A1,2)	7	

Number returned

1 / Ø	1..7	Sunday..Saturday
2	1..7	Monday..Sunday
3	0..6	Monday..Sunday
11	1..7	Monday..Sunday
12	1..7	Tuesday..Monday
13	1..7	Wednesday..Thursday
14	1..7	Thursday..Wednesday
15	1..7	Friday..Thursday
16	1..7	Saturday..Friday
17	1..7	Sunday..Saturday

Returns the day of the week corresponding to a date. The day is given as an integer, ranging from 1 (Sunday) to 7 (Saturday), by default.

WEEKNUM(serial_number,return_type)

	A
1	5/15/2011

=WEEKNUM(A1)	21
=WEEKNUM(A1,2)	20

Week begins on

System

1 / Ø	Sunday	1
2	Monday	1
11	Monday	1
12	Tuesday	1
13	Wednesday	1
14	Thursday	1
15	Friday	1
16	Saturday	1
17	Sunday	1
21	Monday	2

System 1 The week containing January 1 is the first week of the year, and is numbered week 1.
System 2 The week containing the first Thursday of the year is the first week of the year, and is numbered as week 1. This system is the methodology specified in ISO 8601, which is commonly known as the European week numbering system.

Returns the week number of a specific date. For example, the week containing January 1 is the first week of the year, and is numbered week 1.

WORKDAY(start_date,days,holidays)

=WORKDAY(A1,A2)	7/12/2011
=WORKDAY(A1,A2,A3)	7/13/2011

Holiday

	A
1	5/15/2011
2	42
3	5/18/2011

Working days exclude weekends and any dates identified as holidays. Use WORKDAY to exclude weekends or holidays when you calculate invoice due dates, expected delivery times, or the number of days of work performed.

Dates should be entered by using the DATE function, or as results of other formulas or functions. For example, use DATE(2012,5,23) for the 23rd day of May, 2012. Problems can occur if dates are entered as text.

Returns a number that represents a date that is the indicated number of working days before or after a date (the starting date).

WORKDAY.INTL(start_date,days,weekend,holidays)

Excel 2010

1 / Ø	Saturday, Sunday	11	Sunday only
2	Sunday, Monday	12	Monday only
3	Monday, Tuesday	13	Tuesday only
4	Tuesday, Wednesday	14	Wednesday only
5	Wednesday, Thursday	15	Thursday only
6	Thursday, Friday	16	Friday only
7	Friday, Saturday	17	Saturday only

=WORKDAY.INTL(DATE(2006,1,1),45)	38779
	3/3/2006
=WORKDAY.INTL(DATE(2006,1,1),45,11)	38770
	2/22/2006

Finds the date 45 workdays from 1/1/2006, counting only Sundays as a weekend day (Weekend argument is 11).

Returns the serial number of the date before or after a specified number of workdays with custom weekend parameters. Weekend parameters indicate which and how many days are weekend days. Weekend days and any days that are specified as holidays are not considered as workdays.

YEAR(serial_number)

=YEAR(A1)	2011

	A
1	5/15/2011

The date of the year you want to find. Dates should be entered by using the DATE function, or as results of other formulas or functions. For example, use DATE(2008,5,23) for the 23rd day of May, 2008. Problems can occur if dates are entered as text.

Returns the year corresponding to a date. The year is returned as an integer in the range 1900-9999.

YEARFRAC(start_date,end_date, basis)

0 / Ø	US (NASD) 30/360
1	Actual/actual
2	Actual/360
3	Actual/365
4	European 30/360

=YEARFRAC(A1,A2)	0.9361111111
=YEARFRAC(A1,A2,1)	0.9388876413

Fraction between dates, using the Actual/Actual basis argument. Because 2012 is a Leap year, it has a 366 day basis.

	A
1	5/15/2011
2	4/22/2012

Dates should be entered by using the DATE function, or as results of other formulas or functions. For example, use DATE(2018,5,23) for the 23rd day of May, 2018. Problems can occur if dates are entered as text.

The YEARFRAC function may return an incorrect result when using the US (NASD) 30/360 basis, and the start_date is the last day in February.

YEARFRAC calculates the fraction of the year represented by the number of whole days between two dates (the start_date and the end_date). For instance, you can use YEARFRAC to identify the proportion of a whole year's benefits, or obligations to assign to a specific term.

www.cheaterjohn.com

EXDTF2009365_1.0