

How can I convert between Julian date and calendar date in Excel?

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Converting between Julian date and calendar date in Excel can be done using the DATE function. The Julian date, which is a continuous count of days from January 1st, 4713 BC, can be converted to the standard calendar date by using the formula =DATE(YEAR,0,0)+JULIAN_DATE. Similarly, to convert a calendar date to Julian date, the formula =INT((DATE(YEAR,MONTH,DAY)-DATE(YEAR,0,0))) can be used. These formulas can be easily applied to any cell in an Excel spreadsheet, allowing for efficient and accurate conversion between Julian and calendar dates.

Excel: Convert Between Julian Date & Calendar Date

A Julian date is a date that is represented by a single number (e.g. 22164) while a calendar date is a date that is represented in months, days and years (e.g. 6/13/2022).

You can use the following formulas in Excel to convert between Julian dates and calendar dates:

Formula 1: Convert Julian Date to Calendar Date

=DATE(IF(0+(LEFT(A2))<30,2000,1900)+LEFT(A2,2),1,RIGHT(A2,3))

Formula 2: Convert Calendar Date to Julian Date

=TEXT(A2,"yy")&TEXT((A2-DATEVALUE("1/1/"&TEXT(A2,"yy"))+1),"000")

Each formula assumes that the date you'd like to

convert is located in cell A2.

The following examples show how to use each formula in practice.

Example 1: Convert Julian Date to Calendar Date

We can type the following formula into cell B2 to convert the Julian date in cell A2 into a calendar date:

=DATE(IF(0+(LEFT(A2))<30,2000,1900)+LEFT(A2,2),1,RIGHT(A2,3))

We can then click and drag this formula down to each remaining cell in column B:

B2		fx		=DATE(IF(0+(LEFT(A2,2))<30,2000,1900)+LEFT(A2,2),1,RIGHT(A2,3))					
	A	B	C	D	E	F	G	H	I
1	Julian Date	Calendar Date							
2	22164	6/13/2022							
3	85124	5/4/1985							
4	85194	7/13/1985							
5	99104	4/14/1999							
6	99106	4/16/1999							
7	94843	4/22/1996							
8	92109	4/18/1992							
9	88129	5/8/1988							
10	88140	5/19/1988							
11	95201	7/20/1995							
12									
13									
14									
15									
16									
17									

Column B displays the calendar date that corresponds to each Julian date in column A.

For example

The Julian date of 22164 is equivalent to a calendar date of 6/13/2022. The Julian date of 85124 is equivalent to a calendar date of 5/4/1985. The Julian date of 85194 is equivalent to a calendar date of 7/13/1985.

And so on.

Example 2: Convert Calendar Date to Julian Date

We can type the following formula into cell B2 to convert the calendar date in cell A2 into a Julian date:

```
=TEXT(A2,"yy")&TEXT((A2-  
DATEVALUE("1/1/"&TEXT(A2,"yy"))+1),"000")
```

We can then click and drag this formula down to each remaining cell in column B:

B2									
	A	B	C	D	E	F	G	H	I
1	Calendar Date	Julian Date							
2	6/13/2022	22164							
3	5/4/1985	85124							
4	7/13/1985	85194							
5	4/14/1999	99104							
6	4/16/1999	99106							
7	4/22/1996	96113							
8	4/18/1992	92109							
9	5/8/1988	88129							
10	5/19/1988	88140							
11	7/20/1995	95201							
12									
13									
14									
15									
16									
17									
18									
19									

Column B displays the Julian date that corresponds to each calendar date in column A.

For example

The calendar date of 6/13/2022 is equivalent to a Julian date of 22164. The calendar date of 5/4/1985 is equivalent to a Julian date of 85124. The calendar date of 7/13/1985 is equivalent to a Julian date of 85194.

And so on.

The following tutorials explain how to perform other common tasks in Excel: