How can I quickly convert time to decimal in Google Sheets?

Authored by

stats writer

June 26, 2024

The process of converting time to decimal in Google Sheets can be done quickly and efficiently by utilizing the built-in TIMEVALUE function. This function converts a time value in the standard "hh:mm:ss" format to a decimal representation, where 1 represents a full day. To use this function, simply enter the time value in a cell and then use the TIMEVALUE function to convert it to decimal. This allows for easy and accurate calculations of time in decimal format, making it a convenient tool for various time-related tasks in Google Sheets.

Google Sheets: Quickly Convert Time to Decimal

You can use the following formula to convert a time to a decimal in Google Sheets:

=HOUR(B2)+(MINUTE(B2)/60)+(SECOND(B2)/3600)

This particular formula converts the time in cell B2 to a decimal.

For example, if the time is 4:19:34 then the formula will convert this to 4.3261 so that the time is represented as 4.3261 hours.

The following example shows how to use this formula in practice.

Example: Convert Time to Decimal in Google Sheets

Suppose we have the following dataset in Google Sheets that shows the number of hours, minutes, and

seconds it took various athletes to finish a competition:

	A	B	C	D
1	**Athlete**	**Duration**		
2	Andy	4:13:00		
3	Bob	13:30:15		
4	Chad	2:15:00		
5	Doug	4:19:34		
6	Eric	20:34:13		
7	Frank	20:00		
8	George	5:05		
9	Henry	9:15		
10	Isaiah	10:12		
11	John	3:22:00		
12				
13				
14				
15				
16				
17				
18				
19				

We can use the following formula to convert the durations into a decimal format:

=HOUR(B2)+(MINUTE(B2)/60)+(SECOND(B2)/3600)

We will type this formula into cell C2 and then click and drag the formula down to each remaining cell in column C:

C2 | fx | =HOUR(B2)+(MINUTE(B2)/60) + (SECOND(B2)/3600)

	A	B	C	D
1	**Athlete**	**Duration**	**Decimal**	
2	Andy	4:13:00	4.216666667	
3	Bob	13:30:15	13.50416667	
4	Chad	2:15:00	2.25	
5	Doug	4:19:34	4.326111111	
6	Eric	20:34:13	20.57027778	
7	Frank	20:00	20	
8	George	5:05	5.083611111	
9	Henry	9:15	9.250555556	
10	Isaiah	10:12	10.20416667	
11	John	3:22:00	3.366666667	
12				
13				
14				
15				
16				
17				
18				
19				

The new Decimal column displays the time in the Duration column as a decimal.

For example:

A duration of 4 hours, 13 minutes, and 0 seconds is converted to 4.2167 hours.A duration of 13 hours, 30 minutes, and 15 seconds is converted to 13.5041 hours.A duration of 2 hours, 15 minutes, and 0 seconds is converted to 2.25 hours.

And so on.

If you would instead like to display the durations in terms of number of days, you can divide the entire formula by 24:

=(HOUR(B2)+(MINUTE(B2)/60)+(SECOND(B2)/3600)) / 24

The following screenshot shows how to use this formula in practice:

C2 =(HOUR(B2)+(MINUTE(B2)/60) + (SECOND(B2)/3600))/24

	A	B	C	D	E
1	**Athlete**	**Duration**	**Decimal**		
2	Andy	4:13:00	0.1756944444		
3	Bob	13:30:15	0.5626736111		
4	Chad	2:15:00	0.09375		
5	Doug	4:19:34	0.1802546296		
6	Eric	20:34:13	0.8570949074		
7	Frank	20:00	0.8333333333		
8	George	5:05	0.2118171296		
9	Henry	9:15	0.3854398148		
10	Isaiah	10:12	0.4251736111		
11	John	3:22:00	0.1402777778		
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					

The new Decimal column displays the time in the Duration column as a number of days.

For example:

A duration of 4 hours, 13 minutes, and 0 seconds is converted to .1756 days.A duration of 13 hours, 30 minutes, and 15 seconds is converted to .5626 days.A duration of 2 hours, 15 minutes, and 0 seconds is

converted to .09375 days.

And so on.