

# How do I calculate a time difference in Google Sheets?

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## RECOMMENDED CITATION

stats writer (2024). *How do I calculate a time difference in Google Sheets?*.

PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=163788>

Calculating time differences in Google Sheets is a simple and efficient process that can be done using the built-in functions and formulas. To calculate the time difference between two given times, you can use the "DATEDIF" function which calculates the difference in days, months, or years between two dates. Another option is to use the "MINUTE" and "HOUR" functions to extract the minutes and hours from the given times and then use simple subtraction to get the time difference. Additionally, you can also use the "TIMEDIFF" function to calculate the duration between two times in a specific format. By using these functions and formulas, you can easily calculate the time difference and get accurate results in your Google Sheets.

## Calculate a Time Difference in Google Sheets

**You can use the following basic syntax to calculate a time difference between two times in Google Sheets:**

**=B1-A1**

**This particular formula assumes the starting time is in cell A1 and the ending time is in cell B1.**

**In order for this formula to work properly, the cells in A1 and B1 must both have a Date time format.**

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

**Example: Calculating a Time Difference in Google Sheets**

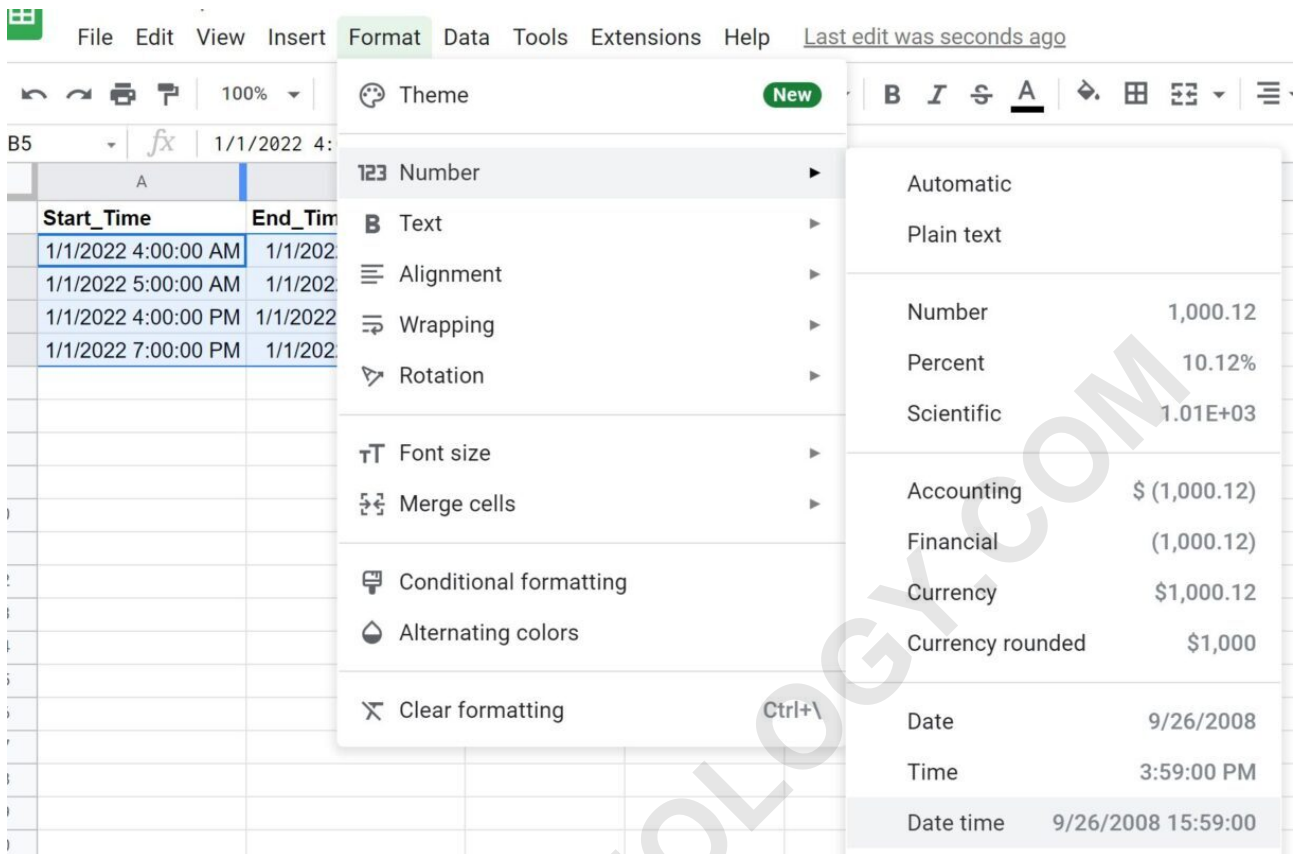
**Suppose we have the following two columns in Google Sheets that show the start and end time of some**

## events:

	A	B	C	D
1	<b>Start_Time</b>	<b>End_Time</b>		
2	1/1/2022 4:00:00 AM	1/1/2022 5:00:00 AM		
3	1/1/2022 5:00:00 AM	1/1/2022 8:09:00 AM		
4	1/1/2022 4:00:00 PM	1/1/2022 11:40:20 PM		
5	1/1/2022 7:00:00 PM	1/1/2022 8:15:30 PM		
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17				

**Before calculating the time difference for each event, we must make sure that the times are in a Date time format.**

**To do so, highlight the cells in the range A2:B5 and then click the Format tab along the top ribbon, then click Number, then click Date time:**



**Each of the times will automatically be converted to a Date time format:**

	A	B	C	D
1	<b>Start_Time</b>	<b>End_Time</b>		
2	1/1/2022 4:00:00	1/1/2022 5:00:00		
3	1/1/2022 5:00:00	1/1/2022 8:09:00		
4	1/1/2022 16:00:00	1/1/2022 23:40:20		
5	1/1/2022 19:00:00	1/1/2022 20:15:30		
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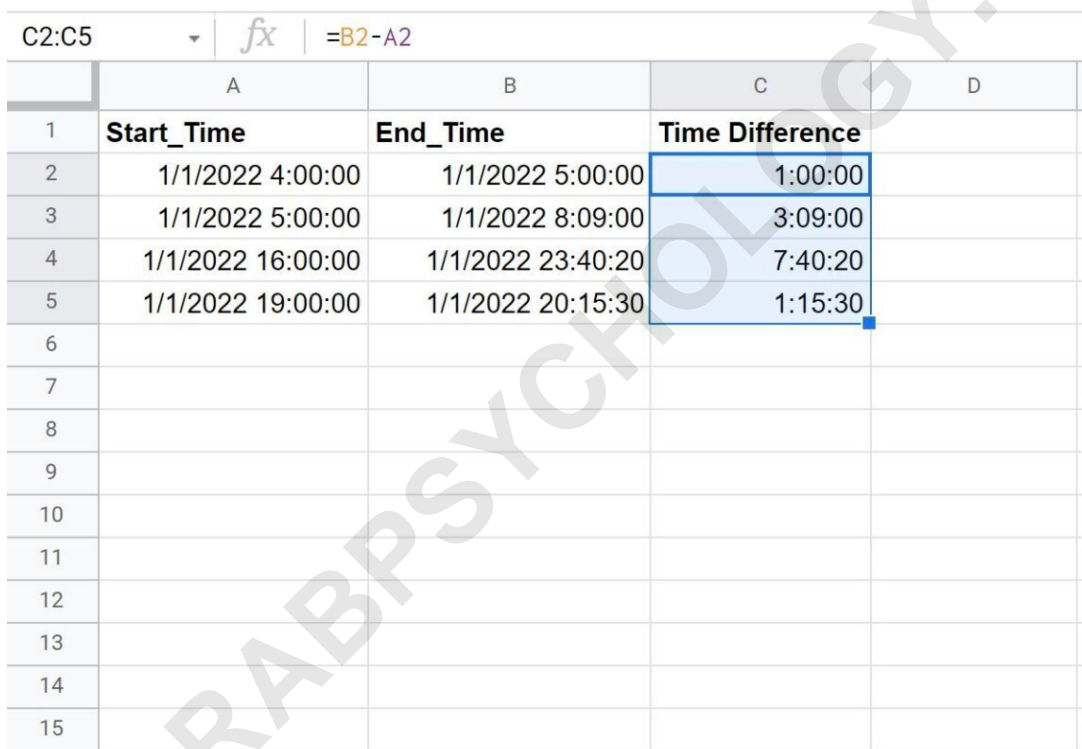
Next, we can simply subtract the start times from the end times:

C2    fx    =B2-A2

	A	B	C	D
1	<b>Start_Time</b>	<b>End_Time</b>	<b>Time Difference</b>	
2	1/1/2022 4:00:00	1/1/2022 5:00:00	0.04166666667	
3	1/1/2022 5:00:00	1/1/2022 8:09:00	0.13125	
4	1/1/2022 16:00:00	1/1/2022 23:40:20	0.3196759259	
5	1/1/2022 19:00:00	1/1/2022 20:15:30	0.05243055556	
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To convert the time difference to a time format, highlight the cells in the range C2:C5, then click the Format tab along the top ribbon, then click Number, then click Duration.

The time differences will automatically be converted into a Hours: Minutes: Seconds format.



	A	B	C	D
1	<b>Start_Time</b>	<b>End_Time</b>	<b>Time Difference</b>	
2	1/1/2022 4:00:00	1/1/2022 5:00:00	1:00:00	
3	1/1/2022 5:00:00	1/1/2022 8:09:00	3:09:00	
4	1/1/2022 16:00:00	1/1/2022 23:40:20	7:40:20	
5	1/1/2022 19:00:00	1/1/2022 20:15:30	1:15:30	
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15				

If you'd like to extract the individual hours, minutes, and seconds from the time difference, you can use the HOUR, MINUTE, and SECOND functions:

	A	B	C	D	E	F
1	<b>Start_Time</b>	<b>End_Time</b>	<b>Time Difference</b>	<b>Hours</b>	<b>Minutes</b>	<b>Seconds</b>
2	1/1/2022 4:00:00	1/1/2022 5:00:00	1:00:00	1	0	0
3	1/1/2022 5:00:00	1/1/2022 8:09:00	3:09:00	3	9	0
4	1/1/2022 16:00:00	1/1/2022 23:40:20	7:40:20	7	40	20
5	1/1/2022 19:00:00	1/1/2022 20:15:30	1:15:30	1	15	30
6				=HOUR(B2-A2)	=MINUTE(B2-A2)	=SECOND(B2-A2)
7						
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10						
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12						
13						
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### Additional Resources

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

