

How do I calculate the standard deviation using the IF function in Google Sheets?

Authored by
stats writer

June 30, 2024

RECOMMENDED CITATION

stats writer (2024). *How do I calculate the standard deviation using the IF function in Google Sheets?*. PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=161348>

The process of calculating the standard deviation using the IF function in Google Sheets involves first identifying the range of data for which the standard deviation needs to be calculated. Then, using the IF function, the data is filtered based on a certain criteria and the standard deviation is calculated using the STDEV function. This allows for the customization of the standard deviation calculation based on specific conditions. By following this method, accurate and tailored standard deviation values can be obtained in Google Sheets.

Calculate Standard Deviation IF in Google Sheets

You can use the following formulas to perform a standard deviation IF calculation in Google Sheets:

Method 1: Standard Deviation IF (One Criteria)

```
=ArrayFormula(STDEV(IF(A:A="Value",C:C)))
```

This formula calculates the standard deviation of values in column C where the values in column A are equal to "Value."

Method 2: Standard Deviation IF (Multiple Criteria)

```
=ArrayFormula(STDEV(IF((A:A="Value1")*(B:B="Value2"),C:C,"")))
```

This formula calculates the standard deviation of values in column C where the values in column A are equal to "Value1" and the values in column B are equal to

"Value2."

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

Example 1: Calculate Standard Deviation IF (One Criteria)

We can use the following formula to calculate the standard deviation of the values in the Points column where the value in the Team column is equal to "Mavs":

=ArrayFormula(STDEV(IF(A:A="Mavs",C:C)))

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

	A	B	C	D	E	F
E2	=ARRAYFORMULA(STDEV(IF(A:A="Mavs", C:C)))					
1	Team	Position	Points		Std. Dev of Points for Mavs	
2	Mavs	Guard	21		7.3326	
3	Spurs	Forward	19			
4	Spurs	Guard	14			
5	Mavs	Forward	29			
6	Mavs	Guard	25			
7	Nets	Forward	22			
8	Mavs	Guard	30			
9	Spurs	Guard	15			
10	Mavs	Forward	11			
11	Mavs	Guard	17			
12	Spurs	Forward	18			
13	Spurs	Forward	22			
14	Nets	Guard	29			
15	Nets	Forward	24			
16						
17						
18						
19						
20						

The standard deviation of Points for the rows where Team is equal to "Mavs" is 7.3326.

Example 2: Calculate Standard Deviation IF (Multiple Criteria)

We can use the following formula to calculate the standard deviation of the values in the Points column where the value in the Team column is equal to "Mavs" and the value in the Position column is equal to "Guard":

=ArrayFormula(STDEV(IF((A:A="Mavs")*(B:B="Guard"),C:C,"")))

	A	B	C	D	E	F
E2	=ArrayFormula(STDEV(IF((A:A="Mavs")*(B:B="Guard"),C:C,"")))					
1	Team	Position	Points		Std. Dev of Points for Mavs Guards	
2	Mavs	Guard	21		5.5603	
3	Spurs	Forward	19			
4	Spurs	Guard	14			
5	Mavs	Forward	29			
6	Mavs	Guard	25			
7	Nets	Forward	22			
8	Mavs	Guard	30			
9	Spurs	Guard	15			
10	Mavs	Forward	11			
11	Mavs	Guard	17			
12	Spurs	Forward	18			
13	Spurs	Forward	22			
14	Nets	Guard	29			
15	Nets	Forward	24			
16						
17						
18						
19						
20						

The standard deviation of Points for the rows where Team is equal to "Mavs" and Position is equal to "Guard" is 5.5603.

Additional Resources

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