What is the purpose of the STDEV.S function in Google Sheets?

Authored by

stats writer

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The STDEV.S function in Google Sheets is used to calculate the standard deviation of a set of numerical data. It is a statistical measure that indicates the amount of variation or dispersion of a set of values from the average. This function is primarily used to assess the consistency and spread of data points and to identify any outliers within a dataset. It is commonly used in financial analysis, scientific research, and other fields where data analysis and interpretation are crucial. The main purpose of the STDEV.S function in Google Sheets is to provide a reliable and efficient way to measure and analyze the variability of data, allowing users to make informed decisions and draw meaningful insights from their data.

Google Sheets STDEV.S Function

STDEV.S Function

The **STDEV.S** function is a premade function in Google Sheets, which calculates the **Standard Deviation (Stdev)** for a sample of a population.

It is typed `=STDEV.S` and gets a list of cells:

=STDEV.S(**value1**,)

You can select cells one by one, but also ranges, or even multiple ranges.

The STDEV.S function ignores cells that do not contain numbers.

Note: Standard deviation (σ) measures how far a 'typical' observation is from the average of the data (μ). You can read more about standard deviation in the Statistics - Standard Deviation Chapter.

Tip: There is another function called `=STDEV.P` that can be used if you have the data for the **entire population**.

Let's have a look at an example!

STDEV.S Function Example

Find the standard deviation of the total stats for the Pokemon in this sample:

	A	B	C	D	E
1	**Name**	**Total**			
2	Bulbasaur	318			
3	Ivysaur	405		STDEV.S	
4	Venusaur	525			
5	Charmander	309			
6	Charmeleon	405			
7	Charizard	534			
8	Squirtle	314			
9	Wartortle	405			
10	Blastoise	530			
11	Caterpie	195			
12	Metapod	205			
13	Butterfree	395			
14	Weedle	195			
15	Kakuna	205			
16	Beedrill	395			
17	Pidgey	251			
18	Pidgeotto	349			
19	Pidgeot	479			
20	Rattata	253			
21	Raticate	413			
22					

The **STDEV.S** function, step by step:

Select the cell `E3`Type `=STDEV.S`Click the **STDEV.S** command

	A	B	C	D	E	F	G	H
1	**Name**	**Total**						
2	Bulbasaur	318						
3	Ivysaur	405		STDEV.S	=STDEV.S			
4	Venusaur	525						
5	Charmander	309						
6	Charmeleon	405						
7	Charizard	534						
8	Squirtle	314						
9	Wartortle	405						
10	Blastoise	530						
11	Caterpie	195						
12	Metapod	205						
13	Butterfree	395						
14	Weedle	195						
15	Kakuna	205						
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17	Pidgey	251						
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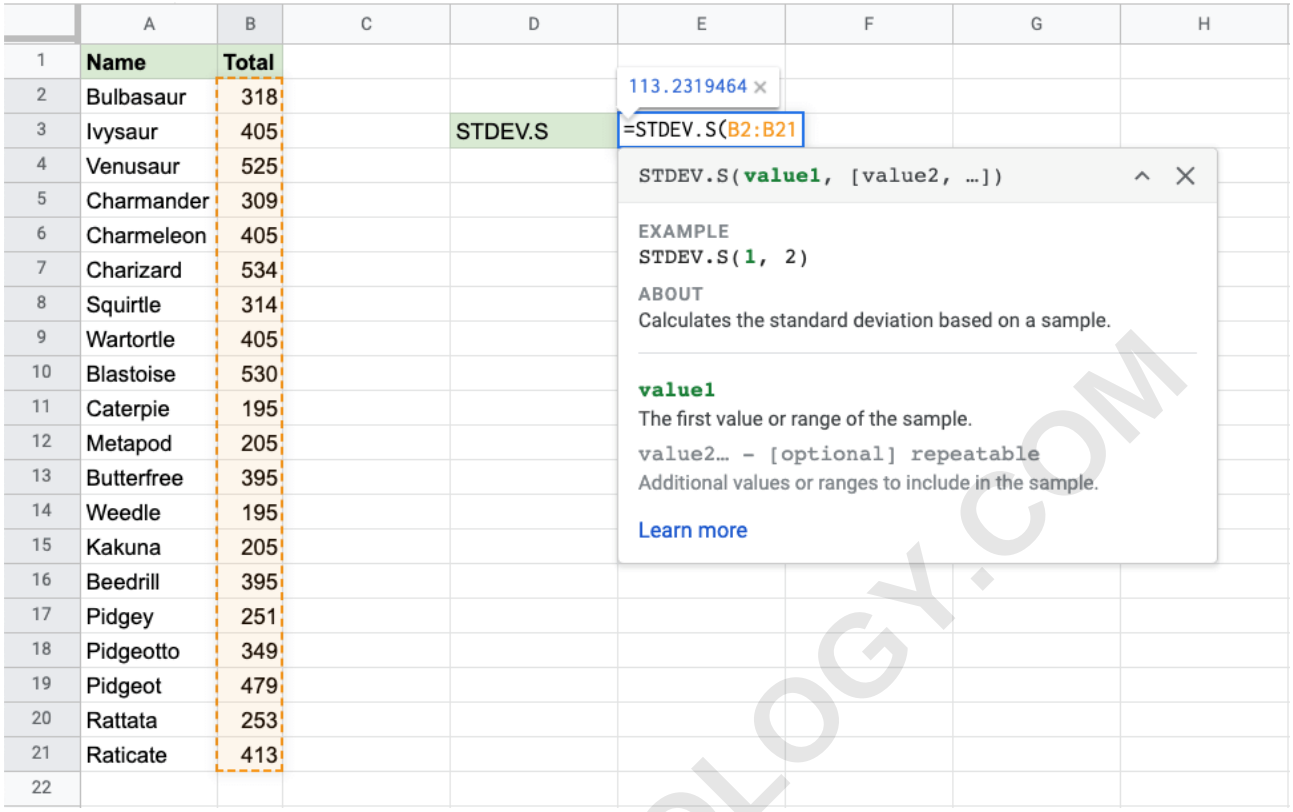
19	Pidgeot	479						
20	Rattata	253						
21	Raticate	413						
22								

STDEV.S
Standard deviation.

Specify the range `B2:B21` for the Total stats for the sample PokemonHit enter



	A	B	C	D	E	F	G	H
1	**Name**	**Total**						
2	Bulbasaur	318						
3	Ivysaur	405		STDEV.S				
4	Venusaur	525						
5	Charmander	309						
6	Charmeleon	405						
7	Charizard	534						
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18	Pidgeotto	349						
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20	Rattata	253						
21	Raticate	413						
22								

Now, the function returns the standard deviation of all the Total stat values:

	A	B	C	D	E	F
1	**Name**	**Total**				
2	Bulbasaur	318				
3	Ivysaur	405		STDEV.S	113.2319464	
4	Venusaur	525				
5	Charmander	309				
6	Charmeleon	405				
7	Charizard	534				
8	Squirtle	314				
9	Wartortle	405				
10	Blastoise	530				
11	Caterpie	195				
12	Metapod	205				
13	Butterfree	395				
14	Weedle	195				
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22						

The **STDEV.S** function has successfully returned the **Standard Deviation** for the sample as `113,2319464`.