# How can I calculate a cumulative average in Excel?

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To calculate a cumulative average in Excel, you can use the AVERAGE function along with the SUM function to add up the previous values and divide by the number of values. This will give you the average of all the values up to the current cell. You can then drag the formula down to the rest of the cells in the column to calculate the cumulative average for each value. Alternatively, you can use the CUMULATIVE AVERAGE function, which automatically calculates the cumulative average for a specific range of cells. Simply select the range of cells and use the function to get the cumulative average. This allows you to easily track the average as you add more data to your spreadsheet.

## Calculate a Cumulative Average in Excel

## A cumulative average tells us the average of a series of values up to a certain point.

## The following step-by-step example shows how to calculate a cumulative average for a dataset in Excel.

### Step 1: Enter the Data

## First, let's enter the values for a given dataset:

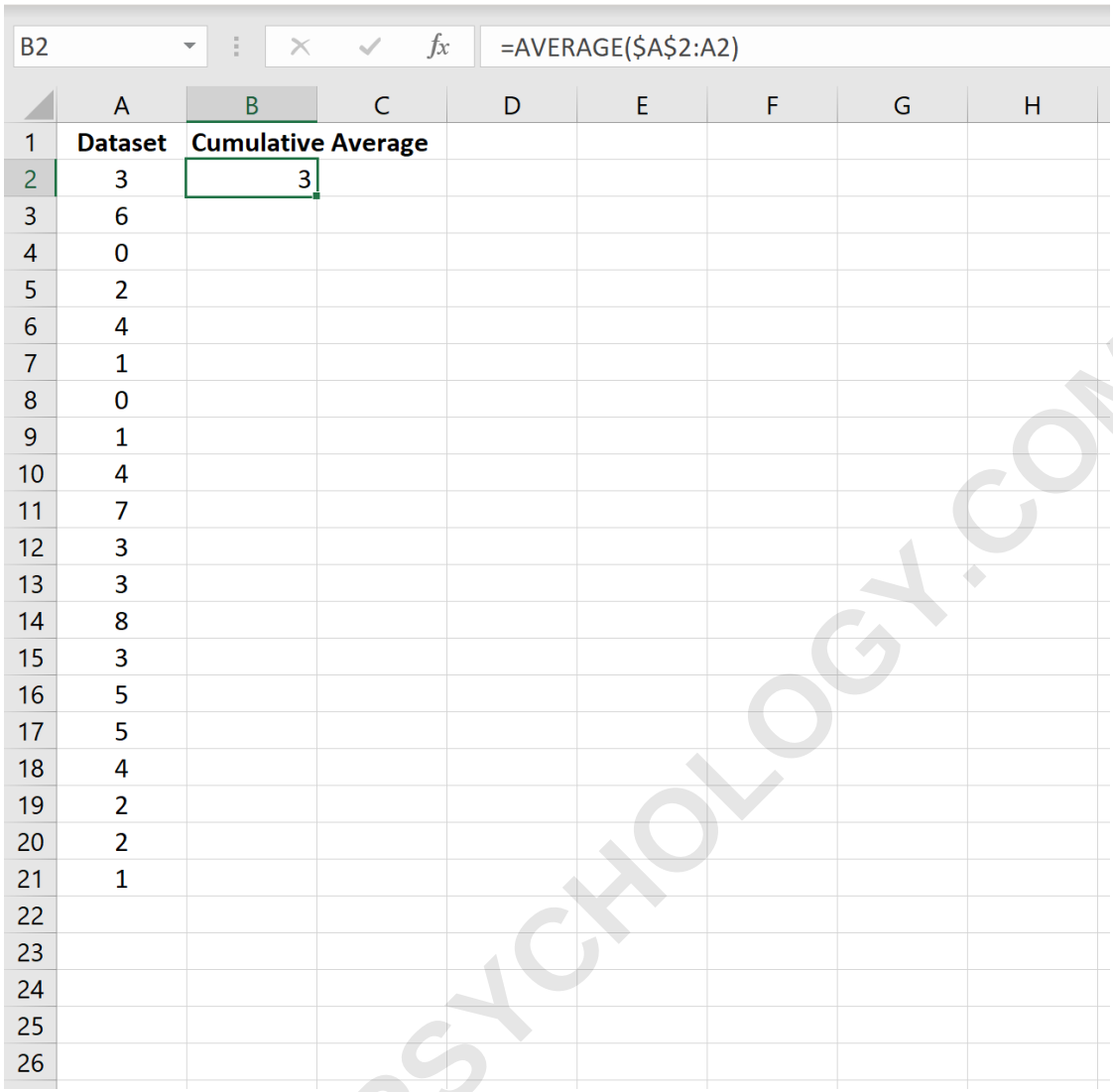
| | A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|---|
| 1 | **Dataset** | | | | | | | |
| 2 | 3 | | | | | | | |
| 3 | 6 | | | | | | | |
| 4 | 0 | | | | | | | |
| 5 | 2 | | | | | | | |
| 6 | 4 | | | | | | | |
| 7 | 1 | | | | | | | |
| 8 | 0 | | | | | | | |
| 9 | 1 | | | | | | | |
| 10 | 4 | | | | | | | |
| 11 | 7 | | | | | | | |
| 12 | 3 | | | | | | | |
| 13 | 3 | | | | | | | |
| 14 | 8 | | | | | | | |
| 15 | 3 | | | | | | | |
| 16 | 5 | | | | | | | |
| 17 | 5 | | | | | | | |
| 18 | 4 | | | | | | | |
| 19 | 2 | | | | | | | |
| 20 | 2 | | | | | | | |
| 21 | 1 | | | | | | | |
| 22 | | | | | | | | |
| 23 | | | | | | | | |
| 24 | | | | | | | | |
| 25 | | | | | | | | |
| 26 | | | | | | | | |



### Step 2: Calculate the First Cumulative Average Value

## Next, we can use the following formula to calculate the first cumulative average value:

## =AVERAGE($A$2:A2)




| | A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|---|
| 1 | Dataset | Cumulative Average | | | | | | |
| 2 | 3 | 3 | | | | | | |
| 3 | 6 | | | | | | | |
| 4 | 0 | | | | | | | |
| 5 | 2 | | | | | | | |
| 6 | 4 | | | | | | | |
| 7 | 1 | | | | | | | |
| 8 | 0 | | | | | | | |
| 9 | 1 | | | | | | | |
| 10 | 4 | | | | | | | |
| 11 | 7 | | | | | | | |
| 12 | 3 | | | | | | | |
| 13 | 3 | | | | | | | |
| 14 | 8 | | | | | | | |
| 15 | 3 | | | | | | | |
| 16 | 5 | | | | | | | |
| 17 | 5 | | | | | | | |
| 18 | 4 | | | | | | | |
| 19 | 2 | | | | | | | |
| 20 | 2 | | | | | | | |
| 21 | 1 | | | | | | | |
| 22 | | | | | | | | |
| 23 | | | | | | | | |
| 24 | | | | | | | | |
| 25 | | | | | | | | |
| 26 | | | | | | | | |



### Step 3: Calculate the Remaining Cumulative Average Values

## Next, we can simply copy and paste this formula down to the remaining cells in column B:

| | A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|---|
| 1 | **Dataset** | **Cumulative Average** | | | | | | |
| 2 | 3 | 3 | | | | | | |
| 3 | 6 | 4.5 | | | | | | |
| 4 | 0 | 3 | | | | | | |
| 5 | 2 | 2.75 | | | | | | |
| 6 | 4 | 3 | | | | | | |
| 7 | 1 | 2.666667 | | | | | | |
| 8 | 0 | 2.285714 | | | | | | |
| 9 | 1 | 2.125 | | | | | | |
| 10 | 4 | 2.333333 | | | | | | |
| 11 | 7 | 2.8 | | | | | | |
| 12 | 3 | 2.818182 | | | | | | |
| 13 | 3 | 2.833333 | | | | | | |
| 14 | 8 | 3.230769 | | | | | | |
| 15 | 3 | 3.214286 | | | | | | |
| 16 | 5 | 3.333333 | | | | | | |
| 17 | 5 | 3.4375 | | | | | | |
| 18 | 4 | 3.470588 | | | | | | |
| 19 | 2 | 3.388889 | | | | | | |
| 20 | 2 | 3.315789 | | | | | | |
| 21 | 1 | 3.2 | | | | | | |
| 22 | | | | | | | | |
| 23 | | | | | | | | |
| 24 | | | | | | | | |
| 25 | | | | | | | | |
| 26 | | | | | | | | |



**We would interpret the cumulative average values as:**

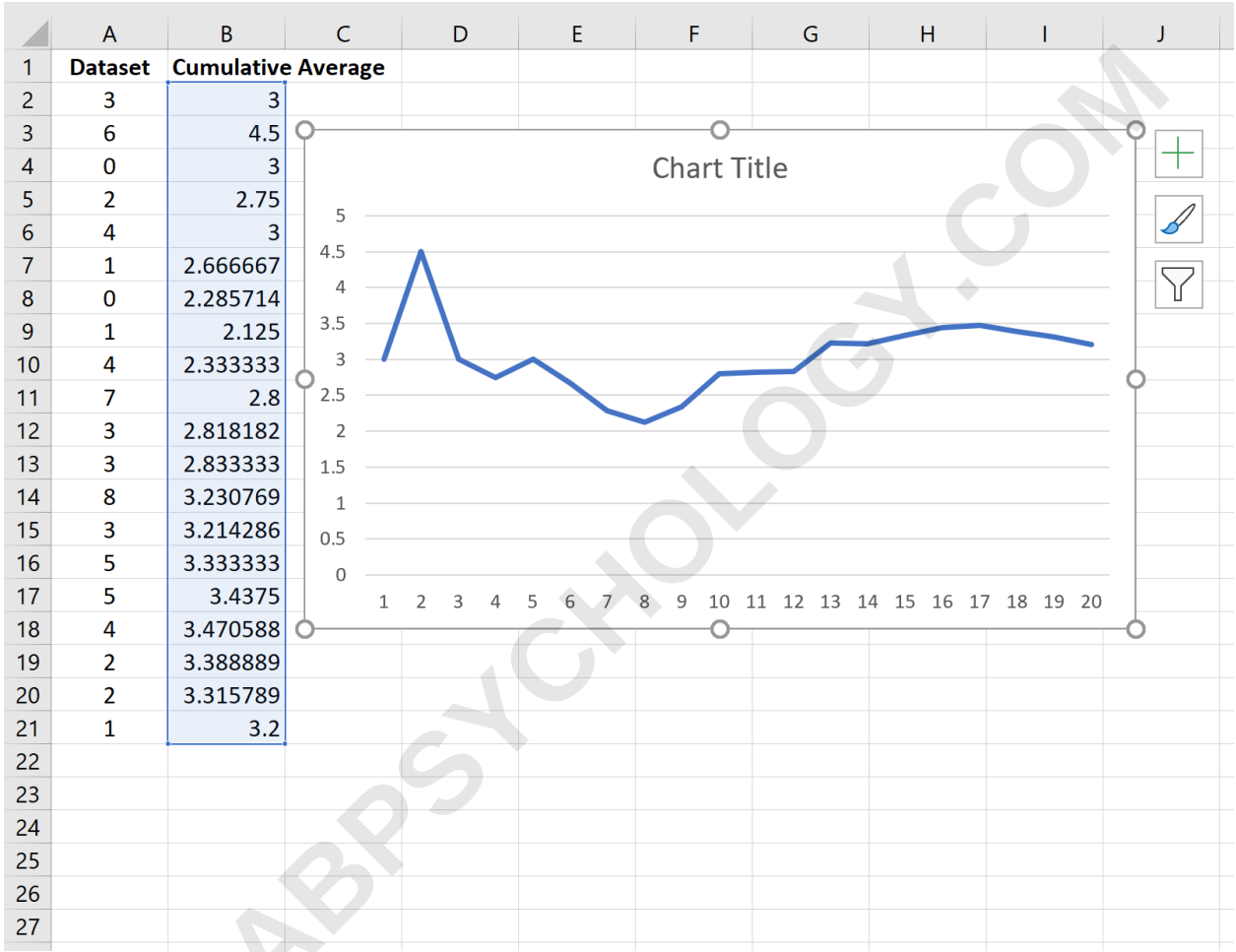
**The cumulative average of the first value is 3.The cumulative average of the first two values is 4.5.The cumulative average of the first three values is 3.**

**And so on.**

### Step 4: Plot the Cumulative Average Values

**We can plot the cumulative average values by**

## highlighting every value in column B, then clicking the Insert tab along the top ribbon, then clicking Insert Line Chart:




| | A | B |
|---|---|---|
| 1 | Dataset | Cumulative Average |
| 2 | 3 | 3 |
| 3 | 6 | 4.5 |
| 4 | 0 | 3 |
| 5 | 2 | 2.75 |
| 6 | 4 | 3 |
| 7 | 1 | 2.666667 |
| 8 | 0 | 2.285714 |
| 9 | 1 | 2.125 |
| 10 | 4 | 2.333333 |
| 11 | 7 | 2.8 |
| 12 | 3 | 2.818182 |
| 13 | 3 | 2.833333 |
| 14 | 8 | 3.230769 |
| 15 | 3 | 3.214286 |
| 16 | 5 | 3.333333 |
| 17 | 5 | 3.4375 |
| 18 | 4 | 3.470588 |
| 19 | 2 | 3.388889 |
| 20 | 2 | 3.315789 |
| 21 | 1 | 3.2 |



## The following tutorials explain how to calculate other common metrics in Excel: