

# Excel: Calculate Average and Drop Lowest Value

Authored by  
**stats writer**

November 17, 2025

## RECOMMENDED CITATION

stats writer (2025). *Excel: Calculate Average and Drop Lowest Value*. PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=95032>

Excel is an indispensable tool in modern business and academic environments, providing robust capabilities for efficient data analysis and management. Developing proficiency in Excel is crucial for anyone tasked with organizing, manipulating, and interpreting quantitative information. While calculating a standard average is straightforward, a more specialized requirement often arises: calculating the average of a range of values while deliberately excluding the lowest value. This technique is particularly valuable when dealing with larger datasets that may contain statistical outliers or when using assessment methods designed to disregard a student's worst performance.

## Mastering Advanced Average Calculations in Excel

The process of dropping the lowest score ensures a fairer representation of overall performance, mitigating the impact of a single poor result. This approach moves beyond simple arithmetic calculation, requiring the integration of multiple powerful Excel functions into a single, comprehensive formula. This guide will methodically detail the necessary steps and functions required to execute this advanced averaging calculation seamlessly within your worksheets.

In many scenarios, particularly in educational grading or performance metrics, one single data point might skew the final result if it is significantly lower than the rest. This lowest value is often considered an anomaly or an outlier. By implementing a combination formula, we automate this identification and exclusion process. The goal is simple: determine the sum of the entire range, subtract the minimum value, and then divide the result by the count of the remaining items.

### Introducing the Core Exclusion Formula

To perform this complex calculation--summing a range, identifying and subtracting the lowest value, and finally dividing by the adjusted count--we rely on three core Excel functions: SUM, SMALL, and COUNT. When combined, these functions create the robust calculation required.

The following is the standard formula structure used to calculate the average of a cell range (B2:E2 in this example) after automatically removing the single lowest score. Note that the range B2:E2 is illustrative and should be substituted with your actual data range.

You can use the following formula in Excel to calculate the average value in a range and drop the lowest value when calculating the average:

**`=(SUM(B2:E2)-SMALL(B2:E2,1))/(COUNT(B2:E2)-1)`**

This particular formula effectively drops the lowest value in the specified range (**B2:E2** in this instance) and then calculates the average of the remaining data points, ensuring statistical accuracy without manual intervention.

The following example demonstrates how to deploy and utilize this powerful calculation in a real-world dataset.

### Example: Calculate Average and Drop Lowest Value in Excel

To demonstrate the utility and implementation of this complex formula, we will examine a common scenario in educational data analysis: calculating student final grades based on multiple assessments, where the lowest grade is excused.

Suppose we have the following dataset in Excel that shows the scores received by various students on four midterm exams:

	A	B	C	D	E	F
1	<b>Student</b>	<b>Midterm 1</b>	<b>Midterm 2</b>	<b>Midterm 3</b>	<b>Midterm 4</b>	
2	Andy	90	90	74	84	
3	Bob	92	84	91	71	
4	Chad	87	82	99	84	
5	Doug	75	78	67	90	
6	Eric	68	90	65	76	
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						

Suppose the professor of this class calculates the final grade of each student by calculating the average value of their midterm grades and explicitly excluding the value of their lowest grade on any single midterm. Our task is to calculate this adjusted average efficiently for every student.

We can type the following formula into cell **F2**, corresponding to the first student, Andy, to drop the lowest value for their scores in the range B2:E2 and calculate their adjusted average using the remaining values:

**=(SUM(B2:E2)-SMALL(B2:E2,1))/(COUNT(B2:E2)-1)**

Once the formula is entered, we can then click and drag the fill handle down to each remaining cell

in column F, automatically applying the calculation to Bob, Cathy, and David:

	A	B	C	D	E	F
1	<b>Student</b>	<b>Midterm 1</b>	<b>Midterm 2</b>	<b>Midterm 3</b>	<b>Midterm 4</b>	<b>Average Without Lowest Score</b>
2	Andy	90	90	74	84	88
3	Bob	92	84	91	71	89
4	Chad	87	82	99	84	90
5	Doug	75	78	67	90	81
6	Eric	68	90	65	76	78
7						
8						
9						
10						
11						
12						

## Analyzing the Calculated Results

Column F now displays the adjusted average value for each student with the lowest midterm score dropped. It is beneficial to manually verify a few results to understand the calculation outcome clearly.

For example:

**Andy's Calculation:** Andy's lowest value of **74** was identified and dropped. His average was then calculated using the remaining three scores:  $(90 + 90 + 84) / 3 = 88$ .

**Bob's Calculation:** Bob's lowest value of **71** was dropped. His average was then calculated using the remaining three scores:  $(92 + 84 + 91) / 3 = 89$ .

The same systematic process was accurately repeated for every student listed in the dataset, ensuring fair and consistent grading based on the adjusted average.

## Deconstructing the Formula: Understanding the Mechanism

A deep understanding of how the components of the formula interact is key to modifying it for future, more complex data analysis tasks. Recall the formula that we used to calculate the average while dropping the lowest value:

**`=(SUM(B2:E2)-SMALL(B2:E2,1))/(COUNT(B2:E2)-1)`**

The formula is fundamentally structured as a division operation, following the principle: (Total Sum excluding lowest value) / (Total Count excluding one value). Here is a detailed breakdown of its execution:

### The Numerator: Calculating the Adjusted Sum

The numerator is defined by the operation **SUM(B2:E2) - SMALL(B2:E2, 1)**.

We use the SMALL function (**SMALL(B2:E2, 1)**) to identify the absolute lowest value in the range **B2:E2**. The '1' signifies that we want the 1st smallest value.

We then use the SUM function (**SUM(B2:E2)**) to calculate the sum of all values in the range **B2:E2**.

Finally, we subtract the smallest value identified by the SMALL function from the total sum calculated by the SUM function. This yields the sum of all scores excluding the lowest one.

### The Denominator: Determining the Adjusted Count

The denominator is defined by the operation **COUNT(B2:E2) - 1**.

We use the COUNT function (**COUNT(B2:E2)**) to determine the total count of numeric entries in the range. For four scores, the count is four.

We subtract **1** from this count to reflect the number of remaining values after the lowest score has been excluded from the averaging calculation. This ensures the calculation divides by the correct number of data points.

The end result is that we're able to calculate the average value in a range while excluding the lowest value from the calculation, fulfilling the specific requirement for this type of advanced data analysis.

### Conclusion: Elevating Data Processing Efficiency

The ability to calculate an average while intelligently excluding the minimum value is a critical technique in advanced data management. By mastering the combined use of the SUM, SMALL, and COUNT functions within a single Excel formula, users can automate complex grading and performance evaluation systems, guaranteeing rapid, accurate, and consistent results.