How do I calculate the median by group in Excel?

Authored by

stats writer

June 25, 2024

To calculate the median by group in Excel, first organize the data into groups and label each group accordingly. Then, use the MEDIAN function along with the group labels to find the median value for each group. The MEDIAN function takes the middle value in a set of numbers, making it an efficient way to find the median for a group of data. By using this method, you can easily determine the median for multiple groups of data in Excel.

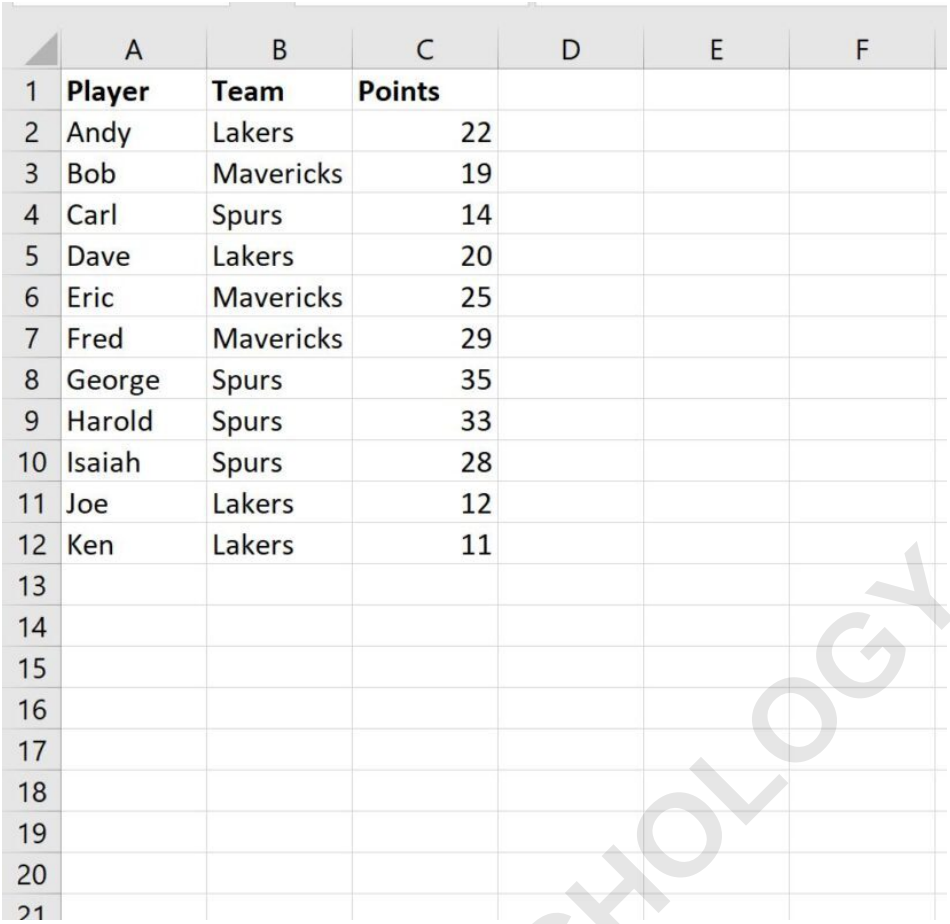
Calculate the Median by Group in Excel

The following step-by-step example shows how to calculate the median value by group in Excel.

Related:

Step 1: Enter the Data

First, let's enter the following dataset that shows the total points scored by various basketball players:



	A	B	C	D	E	F
1	**Player**	**Team**	**Points**			
2	Andy	Lakers	22			
3	Bob	Mavericks	19			
4	Carl	Spurs	14			
5	Dave	Lakers	20			
6	Eric	Mavericks	25			
7	Fred	Mavericks	29			
8	George	Spurs	35			
9	Harold	Spurs	33			
10	Isaiah	Spurs	28			
11	Joe	Lakers	12			
12	Ken	Lakers	11			
13						
14						
15						
16						
17						
18						
19						
20						
21						

Now suppose we'd like to find the median value of the points scored, grouped by team.

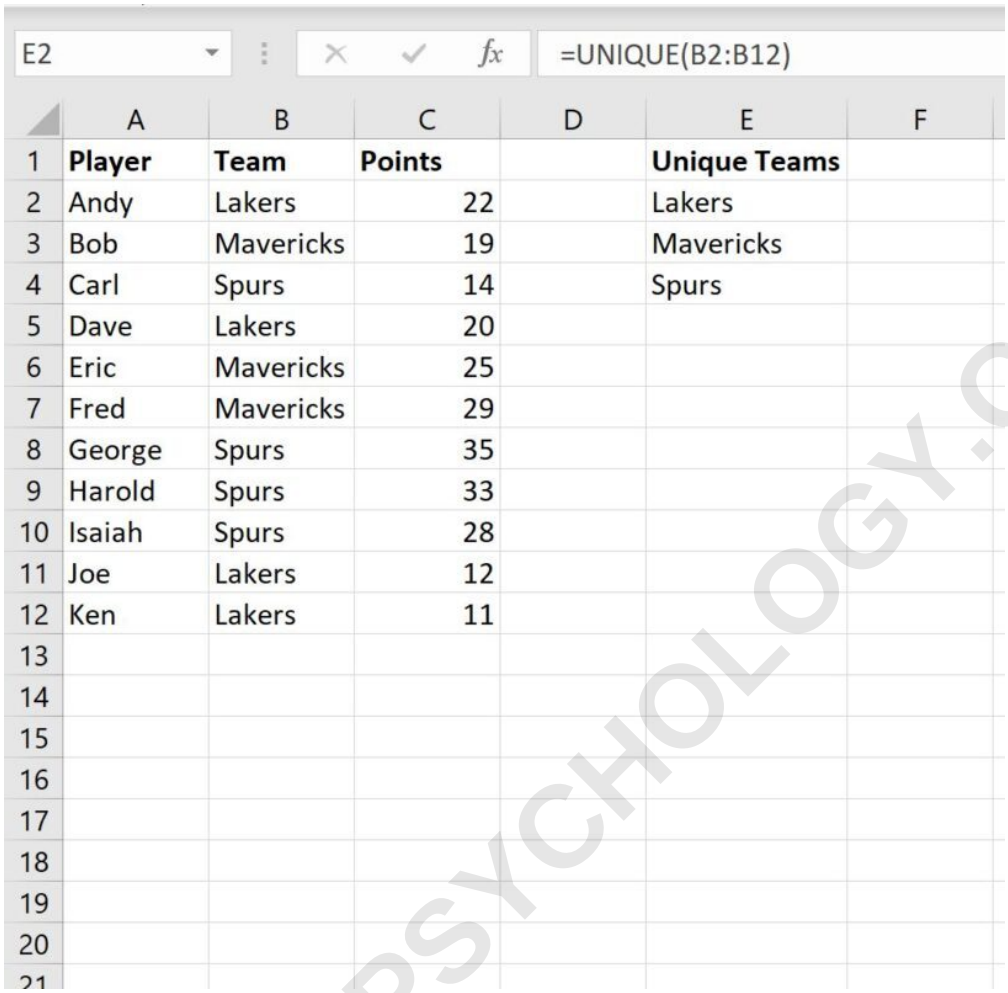
To do so, we can use the UNIQUE() function to first create a list of the unique teams.

We'll type the following formula into cell E2:

=UNIQUE(B2:B12)

Once we press Enter, a list of unique team names will

be displayed:

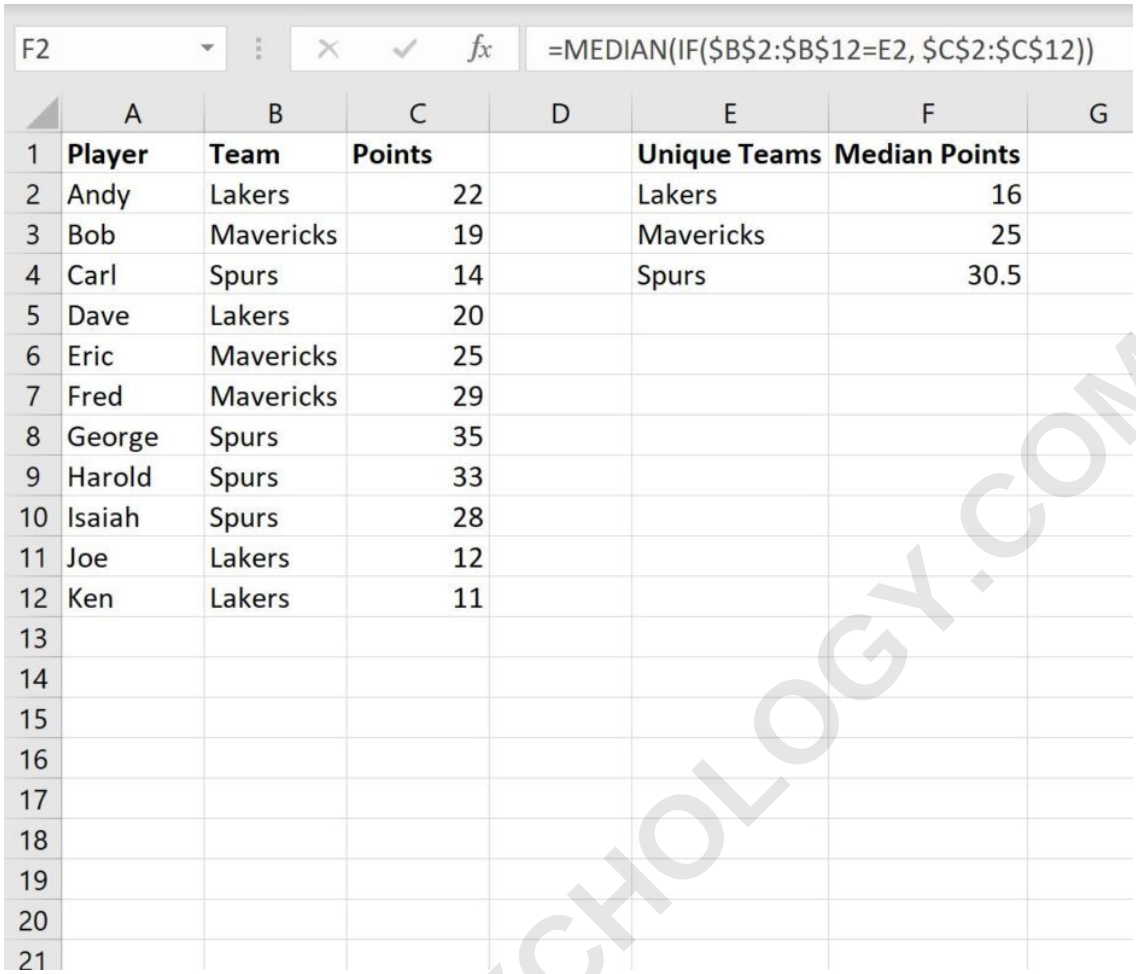


	A	B	C	D	E	F
1	**Player**	**Team**	**Points**		**Unique Teams**	
2	Andy	Lakers	22		Lakers	
3	Bob	Mavericks	19		Mavericks	
4	Carl	Spurs	14		Spurs	
5	Dave	Lakers	20			
6	Eric	Mavericks	25			
7	Fred	Mavericks	29			
8	George	Spurs	35			
9	Harold	Spurs	33			
10	Isaiah	Spurs	28			
11	Joe	Lakers	12			
12	Ken	Lakers	11			
13						
14						
15						
16						
17						
18						
19						
20						
21						

Next, we can use the following formula to find the median value of points scored by players on each team:

=MEDIAN(IF($B$2:$B$12=E2, $C$2:$C$12))

We'll type this formula into cell F2 and copy and paste it down to each remaining cell in column F:



	A	B	C	D	E	F	G
1	**Player**	**Team**	**Points**		**Unique Teams**	**Median Points**	
2	Andy	Lakers	22		Lakers	16	
3	Bob	Mavericks	19		Mavericks	25	
4	Carl	Spurs	14		Spurs	30.5	
5	Dave	Lakers	20				
6	Eric	Mavericks	25				
7	Fred	Mavericks	29				
8	George	Spurs	35				
9	Harold	Spurs	33				
10	Isaiah	Spurs	28				
11	Joe	Lakers	12				
12	Ken	Lakers	11				
13							
14							
15							
16							
17							
18							
19							
20							
21							

Column E displays each of the unique teams and column F displays the median value of the points scored by each team.

From the output we can see:

Median value of points for Lakers players: 16Median value of points for Mavericks players: 25Median value of points for Spurs players: 30.5

We can verify these results are correct by manually calculating the median for one of the teams.

For example, the points scored by players on the Spurs team is: 14, 28, 33, 35

The median value would be the value directly in the middle of 28 and 33, which is 30.5.

This matches the value calculated using the formula.

Related:

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