

What is the process for calculating the mode from a frequency table, and can you provide examples?

Authored by
stats writer

May 1, 2024

RECOMMENDED CITATION

stats writer (2024). *What is the process for calculating the mode from a frequency table, and can you provide examples?*. PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=141746>

The mode is the most frequently occurring value in a set of data. When working with a frequency table, the process for calculating the mode involves identifying the value with the highest frequency, or the value that appears most often. This can be determined by looking at the tally marks or numbers in the frequency column of the table. If there is more than one value with the same highest frequency, then there are multiple modes for the data set.

For example, let's say we have a frequency table for the number of pets owned by 20 households in a neighborhood:

Number of Pets	Frequency
0	5
1	6
2	4
3	3
4	2

In this case, the mode would be 1, since it has the highest frequency of 6. However, if the frequency of 1 and 2 were both 6, then there would be two modes (1 and 2) for this data set.

In summary, the process for calculating the mode from a frequency table involves identifying the value with the highest frequency, and in cases of multiple values with the same highest frequency, all of those values are considered modes for the data set.

Calculate Mode from Frequency Table (With Examples)

The mode of a frequency table represents the value that occurs most often.

In practice, there can be:

Zero modes if no value occurs more often than any other. One mode if one value occurs most often. Multiple modes if several values occur most often.

To identify the mode of a frequency table, you simply need to identify the value(s) with the highest frequency.

The following examples show how to find the mode of different frequency tables.

Example 1: Find Mode from Frequency Table (Zero Modes)

The following frequency table shows the number of pets owned by 10 different families in a certain neighborhood:

Pets	Frequency
0	2
1	2
2	2
3	2
4	2

Notice that each value in the table has the same frequency.

This means there is no mode for this particular frequency table since each value occurs the same number of times.

Example 2: Find Mode from Frequency Table (One Mode)

The following frequency table shows the total number of wins for 17 soccer teams in a certain league:

Wins	Frequency
0	2
1	3
2	4
3	1
4	2
5	3
6	2

The number of wins with the highest frequency is 2 wins.

Wins	Frequency
0	2
1	3
2	4
3	1
4	2
5	3
6	2

Thus, the mode for this frequency table is 2.

Example 3: Find Mode from Frequency Table (Multiple Modes)

Household Size	Frequency
1	2
2	1
3	5
4	5
5	3
6	2
7	5
8	1

The household sizes with the highest frequency are 3, 4, and 7.

Household Size	Frequency
1	2
2	1
3	5
4	5
5	3
6	2
7	5
8	1

Thus, this frequency table actually has three modes: 3, 4, and 7.

ARABPSYCHOLOGY.COM