How do you calculate the mean from a frequency table, and can you provide some examples?

Authored by

stats writer

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Calculating the mean from a frequency table involves finding the average of a set of data presented in a table format. This can be done by multiplying each data value by its corresponding frequency, adding all the resulting products, and then dividing the sum by the total number of frequencies. For example, if the frequency table has data values of 2, 4, and 6 with corresponding frequencies of 3, 5, and 2 respectively, the mean would be (2x3 + 4x5 + 6x2) / (3+5+2) = 3.8. This process can be used to find the mean for any frequency table.

Calculate Mean from Frequency Table (With Examples)

You can calculate the mean of a frequency table by using the following formula:

Mean = Σfx / Σf

where:

Σ: A fancy symbol that means "sum"f: The frequency of a particular valuex: The value in the frequency table

The following examples show how to use this formula in practice.

Example 1: Mean Number of Wins

The following frequency table shows the total number of wins for 30 soccer teams in a certain league:

Wins	Frequency
0	2
1	3
2	7
3	8
4	7
5	3

We can use the following formula to calculate the mean number of wins:

Mean = (0*2 + 1*3 + 2*7 + 3*8 + 4*7 + 5*3) / (2 + 3 + 7 + 8 + 7 + 3)Mean = (0 + 3 + 14 + 24 + 28 + 15) / (30)Mean = (84) / (30)Mean = 2.8

The mean number of wins is 2.8.

Example 2: Mean Number of Pets

The following frequency table shows the total number of pets owned by 20 different families in a certain neighborhood:

Pets	Frequency
0	2
1	10
2	4
3	3
4	1

We can use the following formula to calculate the mean number of pets owned:

Mean = (0*2 + 1*10 + 2*4 + 3*3 + 4*1) / (2 + 10 + 4 + 3 + 1)Mean = (0 + 10 + 8 + 9 + 4) / (20)Mean = (31) / (20)Mean = 1.55

The mean number of pets owned is 1.55.

Example 3: Mean Household Size

The following frequency table shows the household size of 40 different households in a particular area:

Household Size	Frequency
1	2
2	4
3	14
4	13
5	4
6	2
7	1

We can use the following formula to calculate the mean household size:

Mean = (1*2 + 2*4 + 3*14 + 4*13 + 5*4 + 6*2 + 7*1) / (2 + 4 + 14 + 13 + 4 + 2+1)Mean = (2 + 8 + 42 + 52 + 20 + 12 + 7) / (40)Mean = (143) / (40)Mean = 3.575

The mean household size is 3.575.