How can I calculate relative frequency on a TI-84 calculator?

Authored by

stats writer

April 29, 2024

The process of calculating relative frequency on a TI-84 calculator involves using the built-in statistical functions to input the data and then using the appropriate formula to determine the relative frequency. This can be done by first organizing the data in a list and then using the "STAT" button to access the relevant functions. From there, the user can select the desired formula and input the necessary data to calculate the relative frequency. This method allows for quick and accurate calculations of relative frequency on a TI-84 calculator.

Calculate Relative Frequency on a TI-84 Calculator

Relative frequencies tell us how often certain events occur, *relative* to the total number of events.

For example, the following table shows how many items a shop sold in different price ranges in a given week:

Item Price	Frequency	Relative Frequency
$1 - $10	20	0.303
$11 - $20	21	0.318
$21 - $30	13	0.197
$31 - $40	8	0.121
$41 - $50	4	0.061

There were 66 items sold in total. Thus, we found the relative frequency of each class by taking the frequency of each class and dividing by the total items sold.

For example, there were 20 items sold in the price range of $1 - $10. Thus, the relative frequency of the class $1 - $10 is 20 / 66 = 0.303.

Next, there were 21 items sold in the price range of $11 - $20. Thus, the relative frequency of the class $11 - $20 is 21 / 66 = 0.318.

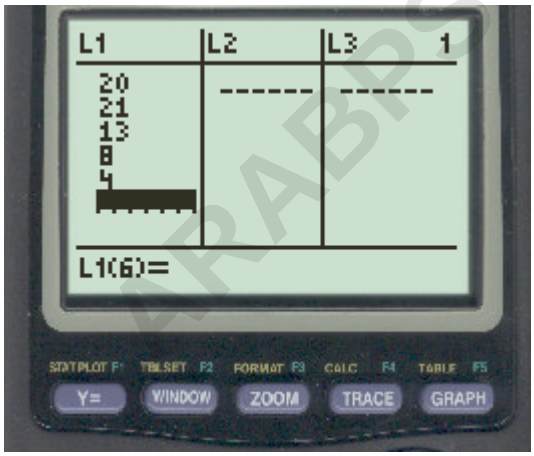
And so on.

The following step-by-step example shows how to calculate relative frequencies on a TI-84 calculator.

Step 1: Enter the Data

First, we will enter the data values.

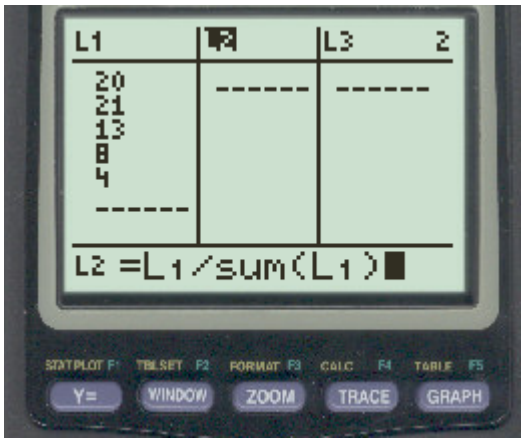
Press Stat, then press EDIT. Then enter the values in column L1:



Step 2: Calculate the Relative Frequencies

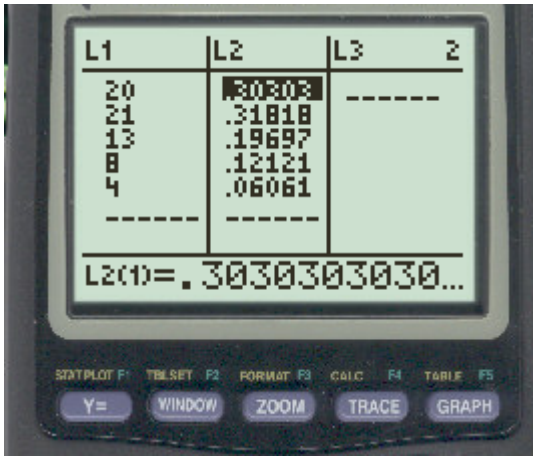
Next, highlight the top of column L2 and type in the

following formula:



Here's how to actually type in this formula:

Press 2nd, then press 1. This will input "L1" in the formula.Press ÷. This will input "/" in the formula.Press 2nd, then press STAT. Scroll over to "MATH" and then press 5. This will input "sum(" in the formula.Press 2nd, then press 1. This will input "L1" inside the sum() in the formula.Press). This will input the second ")" at the end of the formula.



Here's how to interpret the output:

The relative frequency of the first class is .30303.The relative frequency of the first class is .31818.The relative frequency of the first class is .19697.The relative frequency of the first class is .12121.The relative frequency of the first class is .06061.

Note that the sum of all of the relative frequencies is 1.