What are the steps to find the mean, median, and mode of a data set represented by a stem-and-leaf plot?

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The process of finding the mean, median, and mode of a data set represented by a stem-and-leaf plot involves several steps. First, the data must be organized in ascending order. Then, the stem and leaf values must be separated and written out in a numerical sequence. The mean, or average, can be found by adding up all the values and dividing by the total number of values in the data set. The median, or middle value, can be found by locating the middle number in the sequence. If there are an even number of values, the median is the average of the two middle numbers. The mode, or most frequently occurring value, can be found by identifying the stem with the highest frequency of leaf values. If there is more than one stem with the same highest frequency, then there is more than one mode. By following these steps, the mean, median, and mode can be accurately determined from a stem-and-leaf plot.

Stem-and-Leaf Plots: Find Mean, Median, & Mode

A is a type of plot that displays data by splitting up each value in a dataset into a *stem* and a *leaf*.

Points Scored	
Stem	**Leaf**
1	1, 2, 2, 3
2	2, 3, 6, 6
3	0, 1, 2
4	2, 5, 6
5	1, 2
6	1

This tutorial explains how to calculate the mean, median, and mode of a stem-and-leaf plot.

Example: Mean, Median & Mode of Stem-and-Leaf Plot

Suppose we have the following stem-and-leaf plot that shows the height of 19 different plants:

Plant Height (inches)	
Stem	**Leaf**
1	1, 2, 3
2	6, 6
3	0, 1, 2
4	2, 5, 6
5	1, 2
6	1
7	8
8	2, 2
9	3, 4

Mean:

To find the mean of this dataset, we can add up all of the individual values and divide by the total sample size of 19:

Mean = (11+12+13+26+26+30+31+31+42+45+46+51+52+61+78+82+82+93+94) / 19 = 47.68.

The mean turns out to be 47.68. This is the average value of the dataset.

Median:

To find the median of this dataset, we can write out all of the individual values in order and identify the value that lies directly in the middle:

11, 12, 13, 26, 26, 30, 31, 31, 42, 45, 46, 51, 52, 61, 78, 82, 82, 93, 94

The median turns out to be 45. This is the value located directly in the middle of the dataset.

Mode:

To find the mode of this dataset, we can identify the values that occur most often:

11, 12, 13, 26, 26, 30, 31, 31, 42, 45, 46, 51, 52, 61, 78, 82, 82, 93, 94