LESSON MAKER PRO

Find the Center

Find mean, median, and mode, then decide what each tells you.

GRADE 6 · 6.D.1

6.D.1 "Interpret and analyze data. Interpret the mean, median, and mode for a set of data. Explain and justify which measure of center (mean, median, or mode) would provide the most descriptive information for a given set of data."

NAME _____ DATE _____

THREE WAYS TO DESCRIBE DATA

To find the mean, add the values and divide by how many values there are. To find the median, put the values in order and find the middle; the mode is the value that appears most often. An unusually high or low value can pull the mean away from a typical value, while the mode tells you what is most common.

WORKED EXAMPLE

Find the mean, median, and mode of 31, 33, 33, 35, 38.

1. Add the values: 31 + 33 + 33 + 35 + 38 = 170.
2. Divide by 5 values: 170 / 5 = 34, so the mean is 34.
3. The values are in order. The middle value is 33, and 33 appears most often.

Answer: Mean: 34; median: 33; mode: 33.

PRACTICE 6 problems

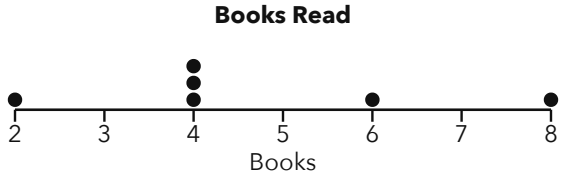
1 Find the mean of 4, 6, 8, 10, 12.

ANSWER _____

2 Find the median of 3, 7, 9, 11, 19.

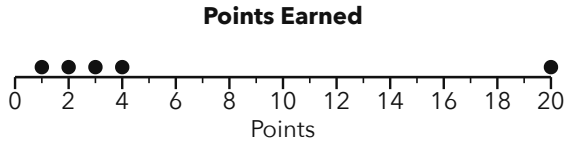
ANSWER _____

3 Find the mode of the data in the dot plot.



ANSWER _____

4 Find the median of the data in the dot plot. Why does it describe a typical value better than the mean?



ANSWER _____

_____

5 The table shows how many songs students listened to on the bus. Find the mode and tell what it means.

SONGS LISTENED TO

Songs	Students
0	2
1	4
2	1

ANSWER _____

_____

6 Find the mean and median of 5, 7, 7, 9, 12.

ANSWER _____

_____

APPLY IT Show your work

1 A game took 2, 3, 3, 4, and 18 minutes to load on five days. Find the mean and median load times. Which better describes a usual wait? Explain.

WORK SPACE

ANSWER _____

2 Students voted for how many songs to add to a class playlist. Which measure of center best tells the number requested most often? Find it and explain.

PLAYLIST VOTES

Songs Requested	Students
1	1
2	3
3	1
8	1

ANSWER _____

CHALLENGE One step up

The points earned in seven game rounds were recorded as 2, 4, 4, 5, 5, 6, 30. The last value should be 9. Find the mean and median before and after fixing the error. Before the fix, which measure better describes a typical round? Explain.

WORK SPACE AND ANSWER

ANSWER KEY

Find the Center

GRADE 6 · 6.D.1

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find the mean of 4, 6, 8, 10, 12.	**8**
2	Find the median of 3, 7, 9, 11, 19.	**9**
3	Find the mode of the data in the dot plot.	**4 books**
4	Find the median of the data in the dot plot. Why does it describe a typical value better than the mean?	**The median is 3 points. The unusually high value of 20 pulls the mean up to 6 points.**
5	The table shows how many songs students listened to on the bus. Find the mode and tell what it means.	**The mode is 1 song. More students listened to 1 song than to any other number of songs.**
6	Find the mean and median of 5, 7, 7, 9, 12.	**Mean: 8; median: 7.**

PART 2 · APPLY IT

1. **The mean is 6 minutes, and the median is 3 minutes. The median better describes a usual wait because the 18-minute wait raises the mean.** The total is 30 minutes, so the mean is 30 / 5 = 6 minutes. The middle value is 3 minutes.
2. **The mode is 2 songs. It tells the number requested most often because three students chose 2 songs, more than chose any other number.** Compare the student counts in the table. The greatest count is 3, next to 2 songs.

CHALLENGE

Before the fix, the mean is 8 and the median is 5. After the fix, the mean is 5 and the median is 5. Before the fix, the median better describes a typical round because the incorrect value of 30 pulls the mean up.

For explanations, accept wording that correctly identifies an unusually high value as raising the mean or identifies the mode as the most frequent value.