LESSON MAKER PRO

Data Detective

Find the center and spot what happens most.

GRADE 6 · 6.D.1.1

6.D.1.1 "Interpret the mean, median, and mode for a set of data."

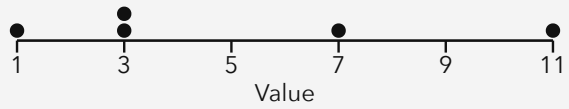
NAME _____ DATE _____

THREE WAYS TO DESCRIBE DATA

The mean is the sum of the values divided by how many values there are. The median is the middle value after you put the data in order. The mode is the value that appears most often.

WORKED EXAMPLE

Find the mean, median, and mode of the data shown.



1. Mean: (1 + 3 + 3 + 7 + 11) / 5 = 5.
2. Median: The middle value of 1, 3, 3, 7, 11 is 3.
3. Mode: 3 appears twice, more than any other value.

Answer: Mean: 5; median: 3; mode: 3.

PRACTICE 4 problems

1 Find the mean of 4, 8, 12, 16.

ANSWER _____

2 Find the median of 14, 2, 10, 8, 12.

ANSWER _____

3 Find the mode of 6, 8, 6, 10, 8, 6.

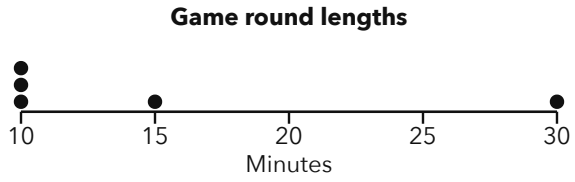
ANSWER _____

4 Find the median and mode of 12, 18, 14, 12, 16, 18, 12.

ANSWER _____

APPLY IT Show your work

1 Five game rounds lasted the minutes shown. Find the mean and median. Which better describes a typical round? Explain.



ANSWER _____

2 Six playlists have 4, 6, 6, 8, 8, and 10 songs. Find the median and modes. What does each mode mean?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A sixth quiz score x joins 4, 6, 6, 8, and 10. If the new mean is 8, find x and the new median. Why is the mean greater than the median?

WORK SPACE AND ANSWER

ANSWER KEY

Data Detective

GRADE 6 · 6.D.1.1

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find the mean of 4, 8, 12, 16.	**10**
2	Find the median of 14, 2, 10, 8, 12.	**10**
3	Find the mode of 6, 8, 6, 10, 8, 6.	**6**
4	Find the median and mode of 12, 18, 14, 12, 16, 18, 12.	**Median: 14; mode: 12.**

PART 2 · APPLY IT

1. **Mean: 15 minutes; median: 10 minutes. The median better describes a typical round because the 30-minute round pulls the mean up.** The times total 75 minutes, so the mean is 75 / 5 = 15 minutes. The middle time is 10 minutes.
2. **Median: 7 songs; modes: 6 and 8 songs. Each mode is a playlist size that occurs twice, more often than any other size.** The two middle values are 6 and 8, so the median is (6 + 8) / 2 = 7. Both 6 and 8 occur twice.

CHALLENGE

x = 14; new median = 7. The score of 14 raises the mean above the median.

Accept explanations that identify the unusually long game round or high quiz score as the reason the mean is greater than the median.