

Data Clue Quest

Read each data display and find its important measure.

GRADE 5 • MA.5.DP.1.2

MA.5.DP.1.2 "Interpret numerical data, with whole-number values, represented with tables or line plots by determining the mean, mode, median or range."

NAME _____

DATE _____

FIND THE MEASURE

The mean is the total of all values divided by the number of values. Put values in order to find the median, find the value that occurs most for the mode, and subtract the least value from the greatest value for the range.

WORKED EXAMPLE

A table shows pages read by four students: 20, 22, 24, and 26. Find the mean.

1. Add the values: $20 + 22 + 24 + 26 = 92$.
2. Count the values: 4.
3. Divide: $92 \div 4 = 23$.

Answer: The mean is 23.

PRACTICE 6 problems

- 1** Table: Number of goals scored in five soccer games
Game | 1 | 2 | 3 | 4 | 5 Goals | 11 | 13 | 15 | 17 | 19 Find the mean number of goals.

ANSWER _____

- 2** Table: Minutes spent reading
Student | A | B | C | D | E Minutes | 2 | 5 | 12 | 14 | 16 Find the median number of minutes.

ANSWER _____

- 3** Line plot: Number of comic books read
1 | X 2 | XX 3 | X 5 | XXX 7 | XX Find the mode.

ANSWER _____

- 4** Table: Number of steps on five walking trails
Trail | A | B | C | D | E Steps | 9 | 11 | 13 | 18 | 21 Find the range.

ANSWER _____

- 5** Table: Stickers collected
Number of stickers | 1 | 3 | 5 | 7 | 9 Number of students | 1 | 2 | 3 | 2 | 1 Find the median number of stickers.

ANSWER _____

- 6** Table: Points earned in four arcade rounds
Round | 1 | 2 | 3 | 4 Points | 13 | 15 | 17 | 19 Find the mean number of points.

ANSWER _____

APPLY IT Show your work

- 1** A skate club tracks the number of laps each member rides at the park. Line plot: Laps ridden 2 | X 3 | XX 5 | XXX 7 | XX 9 | X What are the median and range of the laps ridden?

WORK SPACE

ANSWER _____

- 2** A video game club records points earned by five players in a puzzle tournament. Player | Jada | Kai | Lian | Mateo | Priya Points | 11 | 13 | 15 | 15 | 21 What are the mean and mode of the points?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A student says that the mean, median, and mode are all 5 for this line plot. Is the student correct? Explain your reasoning. Line plot: Number of songs on playlists 1 | X 3 | X 5 | XXX 7 | X 9 | X

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Table: Number of goals scored in five soccer games Game 1 2 3 4 5 Goals 11 13 15 17 19 Find the mean number of goals.	15
2	Table: Minutes spent reading Student A B C D E Minutes 2 5 12 14 16 Find the median number of minutes.	12
3	Line plot: Number of comic books read 1 X 2 XX 3 X 5 XXX 7 XX Find the mode.	5
4	Table: Number of steps on five walking trails Trail A B C D E Steps 9 11 13 18 21 Find the range.	12
5	Table: Stickers collected Number of stickers 1 3 5 7 9 Number of students 1 2 3 2 1 Find the median number of stickers.	5
6	Table: Points earned in four arcade rounds Round 1 2 3 4 Points 13 15 17 19 Find the mean number of points.	16

PART 2 • APPLY IT

- Median: 5 laps; range: 7 laps.** There are nine values, so the fifth value is the median, 5. Subtract the least value, 2, from the greatest value, 9, to get a range of 7.
- Mean: 15 points; mode: 15 points.** Add the points to get 75, then divide by five players to get a mean of 15. The value 15 occurs most often.

CHALLENGE

Yes. The values total 35, so the mean is $35 / 7 = 5$. The middle value is 5, and 5 occurs most often.

Accept measure labels in any order when both measures are requested. For the challenge, accept an explanation that shows a total of 35, identifies 5 as the middle value, and identifies 5 as the most frequent value.