

Data Detectives

Find the mode, median, and range in each set of data.

GRADE 4 • MA.4.DP.1

MA.4.DP.1 "Collect, represent and interpret data and find the mode, median and range of a data set."

NAME _____

DATE _____

THREE DATA CLUES

Put data in order from least to greatest before finding the median or range. The mode is the value that appears most often, the median is the middle value, and the range is the greatest value minus the least value. If there are two middle values, add them and divide by 2.

WORKED EXAMPLE

Find the mode, median, and range for 14, 6, 3, 6, 10.

1. Order the data: 3, 6, 6, 10, 14.
2. 6 appears most often, so the mode is 6.
3. The middle value is 6, so the median is 6.
4. Subtract: $14 - 3 = 11$, so the range is 11.

Answer: Mode: 6; median: 6; range: 11

PRACTICE 6 problems

- 1** Find the mode: 4, 9, 4, 7, 1

ANSWER _____

- 2** Find the median: 15, 13, 18, 16, 17

ANSWER _____

- 3** Find the range: 21, 24, 28

ANSWER _____

- 4** Find the mode, median, and range: 24, 22, 27, 24, 26

ANSWER _____

- 5** Use the tally chart. What is the mode? 12: |||
13: ||||| 15: ||||

ANSWER _____

- 6** Find the mode, median, and range: 40, 45, 47, 45, 49

ANSWER _____

APPLY IT Show your work

- 1** At a game club, the number of points earned by players was 16, 18, 20, 20, 22, and 23. Find the mode, median, and range.

WORK SPACE

ANSWER _____

- 2** Zara counted trading cards owned by five friends: 30, 28, 32, 28, and 35. Find the mode, median, and range.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Rina recorded these lap times in seconds: 42, 44, 44, 46, 48, 48, 51. She says the data have two modes. Is she correct? Find both modes, the median, and the range. Explain why.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Find the mode: 4, 9, 4, 7, 1	4
2	Find the median: 15, 13, 18, 16, 17	16
3	Find the range: 21, 24, 28	7
4	Find the mode, median, and range: 24, 22, 27, 24, 26	Mode: 24; median: 24; range: 5
5	Use the tally chart. What is the mode? 12: 13: 15:	13
6	Find the mode, median, and range: 40, 45, 47, 45, 49	Mode: 45; median: 45; range: 9

PART 2 • APPLY IT

1. **Mode: 20; median: 20; range: 7** The data are already in order. The middle pair is 20 and 20, and the range is 23 - 16.
2. **Mode: 28; median: 30; range: 7** Order the data as 28, 28, 30, 32, 35. The middle value is 30, and subtract 28 from 35 for the range.

CHALLENGE

Yes. The modes are 44 and 48 because each appears twice. The median is 46, and the range is 9.

Accept mode, median, and range in any order when labels are clear. For the challenge, accept an explanation that identifies both repeated values and gives the correct median and range.