LESSON MAKER PRO

Data in Focus

Find the center and spread of a data set.

HIGH SCHOOL · A1.D.1.1

A1.D.1.1 "Display, describe, and compare data sets using summary statistics (central tendency and spread (range)). Utilize technology (e.g., spreadsheets, calculators) to display data and calculate summary statistics."

NAME _____ DATE _____

THREE USEFUL MEASURES

Find the mean by adding the values and dividing by how many there are. Sort the values to find the median; if two values are in the middle, average them. Find the range by subtracting the smallest value from the largest.

WORKED EXAMPLE

Find the mean, median, and range of these scores.

SCORES

Score 1	Score 2	Score 3	Score 4	Score 5
21	23	25	27	29

1. Mean: (21 + 23 + 25 + 27 + 29) / 5 = 25.
2. Median: 25 is the middle value.
3. Range: 29 - 21 = 8.

Answer: Mean 25, median 25, range 8.

PRACTICE 4 problems

1 Find the mean and range: 4, 6, 8, 10, 12.

ANSWER _____

2 Find the median and range: 2, 6, 6, 14, 18.

ANSWER _____

3 Find the mean and median: 0, 4, 8, 12.

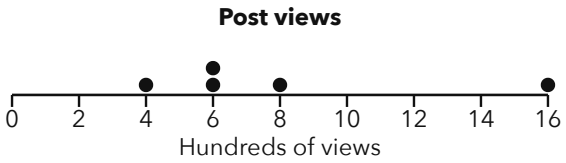
ANSWER _____

4 Set A is 4, 8, 12. Set B is 6, 8, 10. Both means are 8. Which set has the larger range, and by how much?

ANSWER _____

APPLY IT Show your work

1 A creator tracks views for five posts. Find the median and range, in hundreds of views.



ANSWER _____

2 Sam and Lee track how many minutes they take to get ready. Who is more consistent by range? Find both means.

MINUTES TO GET READY

Day	Sam	Lee
Mon	6	4
Tue	8	8
Wed	10	12

ANSWER _____

CHALLENGE One step up

Five clips have 4, 6, 8, 10, and x shares. Their mean is 8 and their range is 8. Find x and show that it fits both facts.

WORK SPACE AND ANSWER

ANSWER KEY # Data in Focus

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find the mean and range: 4, 6, 8, 10, 12.	**Mean 8; range 8.**
2	Find the median and range: 2, 6, 6, 14, 18.	**Median 6; range 16.**
3	Find the mean and median: 0, 4, 8, 12.	**Mean 6; median 6.**
4	Set A is 4, 8, 12. Set B is 6, 8, 10. Both means are 8. Which set has the larger range, and by how much?	**Set A; its range is 8, which is 4 more than Set B's range of 4.**

PART 2 · APPLY IT

1. **Median 6 hundred views; range 12 hundred views.** The middle value is 6. Subtract 4 from 16 to get a range of 12.
2. **Sam is more consistent; Sam's range is 4 minutes and Lee's is 8 minutes. Both means are 8 minutes.** Sam's range is 10 - 6 = 4, while Lee's is 12 - 4 = 8. Each person's three times add to 24, so each mean is 24 / 3 = 8.

CHALLENGE

x = 12. The mean is (4 + 6 + 8 + 10 + 12) / 5 = 8, and the range is 12 - 4 = 8.

Accept answers in views rather than hundreds of views for the first word problem: its median is 600 views and its range is 1,200 views.