LESSON MAKER PRO

Spread It Out

Use range to describe how much data vary.

GRADE 6 · 6.SP.A

CCSS.Math.Content.6.SP.A "Develop understanding of statistical variability."

NAME _____ DATE _____

MEASURE THE SPREAD

Variability describes how much the values in a data set differ. One way to measure spread is the range. Find the range by subtracting the smallest value from the largest value.

WORKED EXAMPLE

Find the range of 21, 26, 23, 25, 22.

1. Largest value: 26
2. Smallest value: 21
3. Subtract: 26 - 21 = 5

Answer: The range is 5.

PRACTICE 6 problems

1 Find the range of 4, 7, 9, 6.

ANSWER _____

2 Find the range of 31, 35, 33, 38.

ANSWER _____

3 Find the range of 42, 45, 47, 43.

ANSWER _____

4 Data Set A: 51, 54, 56. Data Set B: 61, 66, 67. Which data set has the greater range?

ANSWER _____

5 The data values are 72, 76, x, and 74. The range is 8, and x is the greatest value. Find x.

ANSWER _____

6 A data set has a smallest value of 83 and a range of 9. What is the greatest value?

ANSWER _____

APPLY IT Show your work

1 A student tracked the number of minutes spent reading on six days: 28, 34, 30, 32, 29, and 35. What was the range of reading times?

WORK SPACE

ANSWER _____

2 Two gamers recorded their practice times in seconds. Player A's times were 37, 39, 38, and 40. Player B's times were 36, 41, 39, and 42. Which player had more variable practice times?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A data set has five whole-number values. Its smallest value is 14, its greatest value is 32, and its range is 18. Is this enough information to know all five values? Explain, then give two different possible data sets.

WORK SPACE AND ANSWER

ANSWER KEY # Spread It Out

GRADE 6 · 6.SP.A

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find the range of 4, 7, 9, 6.	**5**
2	Find the range of 31, 35, 33, 38.	**7**
3	Find the range of 42, 45, 47, 43.	**5**
4	Data Set A: 51, 54, 56. Data Set B: 61, 66, 67. Which data set has the greater range?	**Data Set B has the greater range, 6. Data Set A has a range of 5.**
5	The data values are 72, 76, x, and 74. The range is 8, and x is the greatest value. Find x.	**x = 80**
6	A data set has a smallest value of 83 and a range of 9. What is the greatest value?	**92**

PART 2 · APPLY IT

1. **7 minutes.** The greatest reading time is 35 minutes and the smallest is 28 minutes. Subtract 35 - 28 to get 7 minutes.
2. **Player B.** Player B's range is 6 seconds, and Player A's range is 3 seconds. Player A's range is 40 - 37 = 3 seconds. Player B's range is 42 - 36 = 6 seconds, so Player B's times vary more.

CHALLENGE

No. The middle three values can be different while the smallest value stays 14 and the greatest value stays 32. Possible data sets are 14, 15, 16, 17, 32 and 14, 28, 29, 30, 32.

Accept any correct subtraction order shown as greatest value minus smallest value. For the challenge, accept any two different five-value whole-number data sets with smallest value 14 and greatest value 32.