



Center, spread & shape of a distribution

GRADE 6 MATH

Name _____

Date _____

Work in order. Sketch a dot plot where it helps; final answers in the boxes. One skill: **center, spread and shape**.

WORKED EXAMPLE

Center — where the data clusters (median or mean). **Spread** — highest – lowest, one number. **Shape** — symmetric, skewed left, or skewed right, named for the direction of the long **tail**. When a distribution is symmetric the mean and median agree; a tail pulls the mean toward it.

1. Find the center (median) of 3, 5, 7, 9, 11.

FLUENCY

Show your thinking

Answer

2. Find the spread of 3, 5, 7, 9, 11.

FLUENCY

Show your thinking

Answer

3. Find the mean of 2, 4, 6, 8.

FLUENCY

Show your thinking

Answer

4. Find the median of 2, 4, 6, 8.

APPLICATION

Show your thinking

Answer

5. For 2, 4, 6, 8, compare the mean and the median. What does that tell you about the shape?

APPLICATION

Show your thinking

Answer

6. A data set is 2, 3, 4, 20. Is the mean greater or less than the median?
Describe the shape.

REASONING

Show your thinking

Answer

7. Find the mean of 2, 3, 4, 20.

APPLICATION

Show your thinking

Answer

8. Find the median of 2, 3, 4, 20.

APPLICATION

Show your thinking

Answer

9. Find the spread of 2, 3, 4, 20, then explain why the spread alone can be misleading about this data set.

REASONING

Show your thinking

Answer