Name _____ Date _____ Period _____

Lesson 2-10 · Apply Day

Reinforce Understanding

Matching Center and Spread

I can choose the best measure of center for a data set based on its shape.

Worked model

A symmetric set is 60, 62, 64, 66, 68. A second set is 60, 62, 64, 66, 210.

1. Look at the shape first. The first set spreads evenly on both sides of its middle.
2. For a symmetric set with no outlier, report the mean for center and the MAD for spread.
3. The second set has an outlier, 210, sitting far above a tight group.
4. For a skewed set, report the median for center and the IQR for spread.

Answer: Symmetric data pairs the mean with the MAD; data with an outlier pairs the median with the IQR.

Practice

Complete each exercise. Show the reasoning that supports your answer.

1. Match each data description with the best measure of center.

Write the letter of the matching item on each line.

1. _____Test scores: 88, 90, 85, 92, 87 (no outliers)
2. _____Salaries: $30K, $32K, $35K, $31K, $250K
3. _____Race times: 12.1s, 12.3s, 12.0s, 12.2s, 12.1s
4. _____Goals scored: 1, 2, 1, 0, 2, 1, 15

- AMean
- BMedian
- CMean
- DMedian

2. The data are 2, 4, 5, 7, 8, 30. Choose the better center: mean or median.

Complete each step, then write the final answer.

1. Identify the far-away value: ___.
2. Choose the resistant measure: ___.

Answer: _____

3. The data are 3, 5, 6, 8, 9, 31. Choose the better center: mean or median.

Complete each step, then write the final answer.

1. Identify the far-away value: ___.
2. Choose the resistant measure: ___.

Answer: _____