

Lesson 2-10 • Group 2

Reinforce Understanding

2.10 Small Group • Group 2

I can choose the best measure of center for a data set based on its shape, explain why the method works, and use it on a problem I have not seen before.

Worked model

Seven ages at a family party are 8, 9, 11, 12, 13, 15, 72. Which center describes them better?

1. Order the values and look for one far from the rest: 72 sits alone above the group.
2. Find the median: the middle of the seven ordered ages is 12.
3. Find the mean: the ages total 140, and sharing that among seven gives 20.
4. The mean now sits above all but one age, so the outlier pulled it away from the group.

Answer: The median, 12, describes a typical age better, because the outlier 72 skews the mean.

Practice

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

1. Complete the table.

Complete the table. Show how you found each value.

Data Set	Mean	Median	Outlier?	Best Measure
15, 18, 16, 17, 15				
15, 18, 16, 17, 72				

Show your work

2. Data: 10, 12, 11, 13, 50. Place the mean (19.2) and median (12) on the number line. Notice how far apart they are because of the outlier.

Mark and label each value on the number line.

Show your thinking

3. A scout records points per game: 14, 16, 15, 17, 16, 58. To report a TYPICAL game, which measure of center is best?

Circle the letter of the best answer. Show how you know.

- A. Mean, because it uses every game
- B. Range, because it shows the highest game
- C. Median, because 58 is an outlier that pulls the mean up
- D. Mode, because 16 appears twice

Show your work
