Lesson 2-3 · Session 1

Finding the Median

Name _____ Date _____ Period _____

Maryland Standard 6.DS.4 · Learning target — I can find the median of a data set by ordering the values and taking the middle one.
Show a model, calculation, or explanation. Answer every part and label units when needed.

Exercises 1–12 earn 1 point for a correct response and 1 for supporting work. Spiral Review and Test Practice earn 1 point each.

Learn from a model

REMEMBER

- The median is the middle value when data is ordered from least to greatest.
- For an odd number of values, the median is the single middle number.
- Watch out — an unordered list hides the median. Order first, every time.
- Check it — with an odd count, the same number of values should sit above and below your median.

WORKED EXAMPLE

Finding the Median of an Odd-sized Set Seven bowling scores are 96, 88, 104, 91, 99, 86, 93. What is the median score?

Step 1 Write the values in order, crossing each one off the original list as you place it.

Step 2 Ordered: 86, 88, 91, 93, 96, 99, 104.

Step 3 Count them. Seven values is an odd count, so one value sits exactly in the middle.

Step 4 Cross off one from each end until a single value is left.

Answer The median score is 93, the middle value of the ordered list.

Practice

1. Order this data set, then find the median: 7, 2, 9, 4, 6

Ordered: _____ Median: _____

Answer _____

SHOW YOUR THINKING

2. Five students' quiz scores: 88, 95, 79, 100, 91. Find the median score.

Answer _____

SHOW YOUR THINKING

3. A sixth score of 85 is added to problem 2's data set (now 6 scores). Can you still find a single middle value? Explain what you would do next.

Answer _____

EXPLAIN WITH MATHEMATICAL EVIDENCE

4. Find the median of each set.

a. 5, 9, 2 _____
b. 14, 10, 18, 12, 16 _____
c. 31, 27, 35 _____
d. 8, 3, 6, 9, 1 _____
e. 40, 55, 45, 60, 50 _____

Answer _____

SHOW YOUR THINKING

5. Chess Club. Seven members played these numbers of games: 12, 5, 9, 14, 7, 11, 3. Find the median.

Answer _____

SHOW YOUR THINKING

6. Snow Shoveling. Kenji shoveled these numbers of driveways on five snow days: 7, 4, 10, 6, 8. Find the median and explain what it says about a typical snow day.

Answer _____

EXPLAIN WITH MATHEMATICAL EVIDENCE

7. Unknown Weight. Five backpack weights in pounds are 9, 15, 11, 20, and one more weight that is the heaviest of the five. Find the median and explain why the unknown weight cannot change it.
Sentence Frame: "I know this because..."

Answer _____

EXPLAIN WITH MATHEMATICAL EVIDENCE

8. Middle of the List. Yolanda found the median of 7, 3, 12, 5, 9 by taking the third number in the list as written. Explain her mistake and find the correct median.

Answer _____

EXPLAIN WITH MATHEMATICAL EVIDENCE

9. Find the median of 45, 38, 52, 41, and 49.

Answer _____ median

SHOW YOUR THINKING

10. Find the median of 7, 3, 9, 1, 8, 5, 6.

Answer _____ median

SHOW YOUR THINKING

11. Step Counts. Nine step counts are 4100, 6200, 5300, 7400, 4800, 6700, 5900, 8100, and 6000. Find the median.

Answer _____ median

SHOW YOUR THINKING

12. Find the Mistake. Tomas says the median of 9, 2, 7, 4, 6 is 7 because 7 is in the middle of the list. Explain his mistake and give the correct median.

Answer _____ the mistake and the median

EXPLAIN WITH MATHEMATICAL EVIDENCE

Spiral review

13. From Lesson 2-2 Session 2. Bars of height 9, 5, 2, 1 describe what shape?

Answer _____

RECORD YOUR RESPONSE

14. From Lesson 2-1 Session 1. Is “What is my street address?” a statistical question?

Answer _____

RECORD YOUR RESPONSE

15. Grade 5. Find 4.8 ÷ 6.

Answer _____

SHOW YOUR THINKING

Test practice

16. What is the median of 10, 4, 7?

□ A. 4	□ B. 7
□ C. 10	□ D. 21

17. The median is a measure of —

□ A. spread	□ B. frequency
□ C. center	□ D. shape

18. What is the median of 22, 19, 31, 25, 28?

□ A. 22	□ B. 31
□ C. 28	□ D. 25

Check and revise

CHECK YOUR MATHEMATICS	HOW DID IT GO?
Order the data first. Count all values, including repeated values. Every part answered / Work shown / Units labeled when needed	I can do this: Independently / With a hint / With help Question to revisit: _____

One correction or question I want to discuss: _____

Check one response against the data. State which measure or feature supports your answer.