MSTAR PRACTICE WORKSHEET

Lesson 2-3: Describe the Data Using the Median

Grade 6 Mathematics · Standard 6.DS.4

Name: _____ Date: _____

These are MSTAR-style questions written for this curriculum to rehearse the format. They are not official Maryland assessment items. MSTAR — Maryland's new state test, first given in spring 2027 — uses the same kinds of questions you see here: selected response, select-all, two-part evidence questions, and written responses.

Part A — Skills Check

Warm up with the lesson's core skills — one best answer each.

Question 1 SELECTED RESPONSE · 1 POINT

Find the mean of: 10, 14, 8, 12, 16

(A) 10

(B) 12

(C) 14

(D) 60

Question 2 SELECTED RESPONSE · 1 POINT

Find the median of: 3, 7, 2, 9, 5

(A) 3

(B) 5

(C) 5.2

(D) 7

Question 3 SELECTED RESPONSE · 1 POINT

Find the mode of: 4, 7, 4, 9, 2, 4, 8

(A) 2

(B) 4

(C) 7

(D) 9

Question 4 SELECTED RESPONSE · 1 POINT

Find the mean of: 6, 8, 10, 12, 14

(A) 8

(B) 10

(C) 12

(D) 50

Question 5 SELECTED RESPONSE · 1 POINT

Data set: 4, 6, 6, 8, 10, 12. What is the median?

(A) 6

(B) 7

(C) 7.67

(D) 8

Question 6 SELECTED RESPONSE · 1 POINT

A player scored 4, 8, 6, 10, and 2 points across five quarters. What is the MEAN number of points?

(A) 6

(B) 8

(C) 10

(D) 30

Part B — Test-Format Questions

These match the state test's formats: two-part questions, select-all, and written responses.

Question 7 TWO-PART QUESTION

Part A

Find the median of this data set: 12, 7, 15, 9, 20, 11, 8.

Fill in the bubble next to the one best answer.

(A) 9

(B) 11

(C) 12

(D) 15

Part B

Answer Part A before Part B — Part B asks about your reasoning.

Why must the data be put in order before finding the median?

(A) Ordering makes the numbers easier to add.

(B) The median is always the largest value.

(C) The median is the middle value by position in the ordered list, not by where it was written.

(D) Ordering changes the median to a whole number.

Question 8 WRITTEN RESPONSE · 2 POINTS

Type II Reasoning: The Unordered Middle

> Kai found the median of 14, 22, 9, 30, 18. He wrote: 'The middle number written down is 9, so the median is 9.'

Explain Kai's misconception and give the correct median.

Write your answer in complete sentences. Show or explain your mathematical thinking.

Part C — Show Your Thinking

Answer in writing, the way the state test's constructed responses work.

Question 9 WRITTEN RESPONSE · 2 POINTS

A basketball player scored 15, 18, 16, 42, and 14 points in 5 games. Find the mean and median. Which better represents the player's typical game? Explain how the outlier affects each measure.

Write your answer in complete sentences. Show or explain your mathematical thinking.

When you finish, check your reasoning with your teacher or family. Your teacher has the scoring guide for the written responses.