MSTAR PRACTICE WORKSHEET

Lesson 2-8: Describe Data Using the Mean

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: 4, 6, 8, 10

(A) 6

(B) 7

(C) 8

(D) 28

Question 2 SELECTED RESPONSE · 1 POINT

Miguel earned $60 walking dogs over 4 days. What is his mean daily earning?

(A) $4

(B) $15

(C) $20

(D) $60

Question 3 SELECTED RESPONSE · 1 POINT

Find the mean of: 3, 5, 7, 9, 11

(A) 5

(B) 7

(C) 9

(D) 35

Question 4 SELECTED RESPONSE · 1 POINT

In her first 4 games, Sofia scored 12, 20, 16, and 11 points. What is her mean points per game so far?

(A) 14.75

(B) 15

(C) 20

(D) 59

Question 5 SELECTED RESPONSE · 1 POINT

Sofia wants to average 15 points per game over 10 games. How many points does she need in all 10 games combined?

(A) 1.5 points

(B) 15 points

(C) 25 points

(D) 150 points

Question 6 SELECTED RESPONSE · 1 POINT

Sofia's points in games 1 through 9 were 12, 20, 16, 11, 17, 14, 15, 10, and 18. How many points has she scored so far?

(A) 15 points

(B) 123 points

(C) 133 points

(D) 150 points

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 mean of this data set: 6, 10, 14, 8, 12.

Fill in the bubble next to the one best answer.

(A) 8

(B) 10

(C) 12

(D) 50

Part B

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

The mean is often described as a 'fair share' or a balance point. Why?

(A) The mean is always the middle value when ordered.

(B) The mean is the value that occurs most often.

(C) The mean is halfway between the minimum and maximum.

(D) If the total were redistributed equally among all the values, each would receive the mean.

Question 8 SELECT ALL THAT APPLY

Select ALL statements that are true about the mean:

Mark the box next to EVERY answer that is true. More than one is correct.

[A] Mean = sum of all values ÷ number of values.

[B] Adding one very large value pulls the mean upward.

[C] The mean must be one of the values in the data set.

[D] The mean can be a decimal even when every value is a whole number.

[E] The mean uses every value in the data set.

Part C — Show Your Thinking

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

Question 9 WRITTEN RESPONSE · 2 POINTS

Sofia realized she made an error: she actually scored 12 points in Game 8, not 10. Her other games are unchanged (12, 20, 16, 11, 17, 14, 15, and 18). How does this change the number of points she needs in Game 10 to average 15 points per game? Show how you know.

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.