MSTAR PRACTICE WORKSHEET

Lesson 2-1: Understand Statistical Questions

Grade 6 Mathematics · Standard 6.DS.1

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

Which of the following is a statistical question?

(A) How many points did each player score this season?

(B) How many points are scored for a free throw?

(C) What sport does this team play?

(D) How many halves are in a soccer game?

Question 2 SELECTED RESPONSE · 1 POINT

Which question is NOT a statistical question?

(A) How many home runs did each player hit this year?

(B) How many miles does each runner train per week?

(C) How many innings are in a baseball game?

(D) How tall is each player on the basketball team?

Question 3 SELECTED RESPONSE · 1 POINT

Why is 'How many hours of sleep did each student get last night?' a statistical question?

(A) Because different students got different amounts of sleep

(B) Because it asks about sleep

(C) Because hours are numbers

(D) Because the answer is always 8 hours

Question 4 SELECTED RESPONSE · 1 POINT

A coach asks: "How many hours does each athlete on the track team sleep the night before a meet?" Why is this a statistical question?

(A) Because it is about sports

(B) Because it has a numerical answer

(C) Because the answers will vary from athlete to athlete

(D) Because the coach asked it

Question 5 SELECTED RESPONSE · 1 POINT

Which of these is a statistical question?

(A) What time is it right now?

(B) What is my shoe size?

(C) What is 7 × 8?

(D) How tall are the students in my class?

Question 6 SELECTED RESPONSE · 1 POINT

Which of these would collect data that VARIES (making it a statistical question)?

(A) How many siblings does each student in the class have?

(B) How many days are in one week?

(C) How many minutes are in one hour?

(D) What is 12 + 12?

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

Which question is a STATISTICAL question?

Fill in the bubble next to the one best answer.

- (A) How many minutes did I sleep last night?
- (B) How many students are in our class?
- (C) What time does school start?
- (D) How many minutes did each student in our class sleep last night?

Part B

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

What makes the other three questions non-statistical?

- (A) They are about school instead of about students.
- (B) They use smaller numbers.
- (C) Each has a single fixed answer, so there is no variability to describe.
- (D) They cannot be answered with data.

Question 8 SELECT ALL THAT APPLY

Select ALL questions that are statistical questions:

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

- [A] How tall is each player on the team?
- [B] How many hours per week do sixth graders spend reading?
- [C] What is my shoe size?
- [D] How long does it take students in our class to get to school?
- [E] What is the capital of Maryland?

Part C — Show Your Thinking

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

Question 9 WRITTEN RESPONSE · 2 POINTS

Write one statistical question and one non-statistical question about your school's cafeteria. Explain why each question is or is not statistical, and describe what the data would look like for the statistical question.

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.