MSTAR PRACTICE WORKSHEET

Lesson 7-5: Represent Rational Numbers on the Coordinate Plane

Grade 6 Mathematics · Standard 6.NOS.6

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 ordered pair names a point 3 units right and 7 units up from the origin?

A (0, 7)

B (3, 7)

C (3, 3)

D (7, 3)

Question 2 SELECTED RESPONSE · 1 POINT

What are the coordinates of the origin?

A (0, 0)

B (0, 1)

C (1, 1)

D (1, 0)

Question 3 SELECTED RESPONSE · 1 POINT

A point is at (6, 2). What does the 6 tell you?

A Move 6 units to the right

B Move 6 units up

C Move 6 units to the left

D The point is in Quadrant 6

Question 4 SELECTED RESPONSE · 1 POINT

Spot 1 — Captain Vega's first clue says the Sandy Dock is right 7 and up 2 from the origin. Which ordered pair names the Sandy Dock?

A (2, 7)

B (2, 2)

C (7, 2)

D (7, 0)

Question 5 SELECTED RESPONSE · 1 POINT

Spot 2 — The map marks the Lookout Tower at (4, 9). What does the 4 tell you to do from the origin?

A Move 4 units to the right along the x-axis

B Move 4 units up along the y-axis

C Move 4 units to the left

D Stay on the y-axis at 4

Question 6 SELECTED RESPONSE · 1 POINT

Spot 3 — Vega writes: 'The Coconut Grove is 3 across and 8 up.' Which point on the map is the Coconut Grove?

A (0, 8)

B (3, 8)

C (3, 3)

D (8, 3)

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

Starting at the origin, which point is located by moving 4 units LEFT and 3 units UP?

Fill in the bubble next to the one best answer.

(A) (3, −4)

(B) (−3, 4)

(C) (−4, 3)

(D) (4, 3)

Part B

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

Why do (−4, 3) and (3, −4) name different points?

(A) They are actually the same point drawn twice.

(B) The order matters: the first number is always the horizontal move, the second the vertical.

(C) Negative coordinates cannot come first.

(D) The larger number is always written first.

Question 8 SELECT ALL THAT APPLY

Select ALL statements that are true about plotting points:

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

[A] The origin is the point (0, 0).

[B] The x-coordinate is written first in an ordered pair.

[C] A point on the y-axis has an x-coordinate of 0.

[D] The order of the two coordinates does not matter.

[E] Moving down from the origin makes the y-coordinate negative.

Part C — Show Your Thinking

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

Question 9 WRITTEN RESPONSE · 2 POINTS

A student says that (3, 5) and (5, 3) are the same point because they use the same numbers. Is the student correct? Explain why or why not, and describe where each point is located on the coordinate plane.

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.