MSTAR PRACTICE WORKSHEET

Lesson 7-2: Represent Rational Numbers and Their Opposites on the Number Line

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 point is located between -1 and -2 on the number line?

(A) -2.5

(B) -1.5

(C) -0.5

(D) 1.5

Question 2 SELECTED RESPONSE · 1 POINT

Which fraction is equivalent to 0.25?

(A) 1/4

(B) 1/2

(C) 1/3

(D) 2/5

Question 3 SELECTED RESPONSE · 1 POINT

Where is -3/4 located on the number line?

(A) Between -3 and -4

(B) Between -1 and -2

(C) Between 0 and -1

(D) Between 0 and 1

Question 4 SELECTED RESPONSE · 1 POINT

Which rational number is closest to 0 on the number line?

(A) -2

(B) -1/4

(C) 0.5

(D) 1.75

Question 5 SELECTED RESPONSE · 1 POINT

Which number is farthest to the LEFT on a number line?

(A) -4

(B) -1

(C) 0

(D) 2

Question 6 SELECTED RESPONSE · 1 POINT

What is the opposite of -3/4?

(A) -3/4

(B) 0

(C) 3/4

(D) 4/3

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

Between which two consecutive integers does −3.5 fall on a number line?

Fill in the bubble next to the one best answer.

(A) −3 and −2

(B) 3 and 4

(C) −4 and −3

(D) −5 and −4

Part B

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

A student says −3.5 is greater than −3 because 3.5 is greater than 3. Why is this reasoning wrong?

(A) 3.5 is not actually greater than 3.

(B) On a number line, the further left a number is, the smaller it is, and −3.5 is left of −3.

(C) Negative numbers cannot be compared.

(D) Decimals are always smaller than integers.

Question 8 WRITTEN RESPONSE · 2 POINTS

Type II Reasoning: Counting the Wrong Direction

> Ines plotted −2¼ on a number line. She found −2, then counted one quarter to the RIGHT, landing between −2 and −1.

Explain Ines's misconception and describe where −2¼ actually belongs.

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

Name three different rational numbers between -1 and 0. Write each as both a fraction and a decimal. Explain how you know they are between -1 and 0.

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.