MSTAR PRACTICE WORKSHEET

Lesson 7-1: Explore Integers and Their Opposites

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

Badwater Basin is 86 meters below sea level, and sea level is 0. Which integer represents that elevation?

(A) -86

(B) -68

(C) 0

(D) 86

Question 2 SELECTED RESPONSE · 1 POINT

In Reykjavik the temperature was -9°C. What is the opposite of -9?

(A) -18

(B) -9

(C) 0

(D) 9

Question 3 SELECTED RESPONSE · 1 POINT

What is the opposite of 0?

(A) A number written -0, which is less than 0

(B) Every negative number

(C) Zero has no opposite

(D) 0

Question 4 SELECTED RESPONSE · 1 POINT

Which list of integers is ordered from LEAST to GREATEST?

(A) -8, -3, 0, 5

(B) -3, -8, 0, 5

(C) 0, -3, -8, 5

(D) 5, 0, -3, -8

Question 5 SELECTED RESPONSE · 1 POINT

Badwater Basin is at -86 meters. Which elevation is FARTHER below sea level than Badwater Basin?

(A) -120 meters

(B) -40 meters

(C) 0 meters

(D) 86 meters

Question 6 SELECTED RESPONSE · 1 POINT

Which statement about 0 is TRUE?

(A) 0 is an integer, and it is its own opposite

(B) 0 is a negative integer because it is not positive

(C) 0 is a positive integer because it has no negative sign

(D) 0 is not an integer at all

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

Badwater Basin sits 86 meters below sea level, where sea level is defined as 0. Which integer represents this elevation?

Fill in the bubble next to the one best answer.

(A) 0

(B) −8.6

(C) −86

(D) 86

Part B

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

What is the opposite of −86, and what does it represent here?

(A) 0, sea level itself

(B) 1/86, a fraction of the depth

(C) 86, an elevation 86 meters ABOVE sea level

(D) −86, the same elevation

Question 8 SELECT ALL THAT APPLY

Select ALL statements that are true about integers and opposites:

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

[A] Zero is an integer.

[B] The opposite of a positive integer is negative.

[C] Opposites are the same distance from zero on a number line.

[D] Every integer has an opposite that is a different distance from zero.

[E] Zero is its own opposite.

Part C — Show Your Thinking

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

Question 9 WRITTEN RESPONSE · 2 POINTS

Describe two different real-world situations that use negative integers. For each one, tell exactly what 0 means in that situation, write one negative integer it could produce, and explain what the opposite of that integer would mean in the same situation.

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.