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DEPARTMENT OF DEFENSE EDUCATION ACTIVITY

DoDEA MATH Assessment Practice Item Answer Key

Grade 3 – Paper, Screen Reader, and Non-Screen Reader

The following pages include the answer key for all machine-scored items, followed by a sample response for the hand-scored item.

- The rubrics show sample student responses. Student responses other than that shown in the rubric may earn full or partial credit.
- Which responses to hand-scored items receive full or partial credit will be confirmed during range-finding (reviewing sets of real student work)
- If students make a computation error, they can still earn points for reasoning or modeling.

Item Number	Answer Key
1.	**B**
2.	**72**
3.	**A**
4.	**A**
5.	**23**
6.	**24**
7.	**B**
8.	**C**
9.	**See Rubric**
10.	**See Rubric**
11.	**A**
12.	**Part A: B** **Part B: D**
13.	**A**
14.	**420**
15.	**A**

16.	**See Rubric**
17.	**Part A: 32** **Part B: 60**
18.	**50**
19.	**Part A: See Rubric** **Part B: See Rubric** **Part C: A**
20.	**D**
21.	**22**
22.	**See Rubric**
23.	**See Rubric**

#9 Rubric	
Score	Description
1	Student response is 576. Rationale: 345 + 231 = 576
0	The response is incorrect or irrelevant.

#10 Rubric	
Score	Description
3	Student response includes the following elements. • Computation component = 1 point: Correct time to start looking at the Window on Collections display • Computation component = 1 point: Correct arrival time • Reasoning/Modeling component = 1 point: Explains how to use a number line diagram to count back twice from the time Stephany finished looking at the display. Sample Student Response: Start at 2:00 p.m. on a number line diagram. Count back 35 minutes to 1:25 p.m. Stephany started looking at the Window on Collections display at 1:25 p.m. On the number line diagram, count back 15 more minutes to 1:10 p.m. Stephany arrived at the museum at 1:10 p.m. Or other valid approaches are acceptable.
2	Student response includes 2 of the 3 elements.
1	Student response includes 1 of the 3 elements.
0	Student response is incorrect or irrelevant.

#16 Rubric	
Score	**Description**
3	Student response includes the following elements. • **Modeling component** = 1 point: Valid expression to find the area of the rectangle. • **Computation component** = 1 point: Correct value for the area, in square units, of the rectangle, 40 • **Modeling component** = 1 point: Valid explanation or work shown for finding the area. Sample Student Response: 8 × 5 There are 8 unit squares along the length and 5 unit squares along the width of the figure. The figure can be covered without gaps or overlaps by 8 × 5, or 40 unit squares. So, the area of the figure is 40 square units. Or other valid approaches are acceptable.
2	Student response includes 2 of the 3 elements.
1	Student response includes 1 of the 3 elements.
0	Student response is incorrect or irrelevant.

#19 Rubric	
Rubric Part A	
Score	**Description**
2	Student response includes the following elements. • **Modeling component** = 1 point: Valid equation to show how many fiction books Lily has now, for example, 35 – 15 + 5 + 2 = 27. • **Computation component** = 1 point: Correct number of fiction books Lily has now, 27 books. Sample Student Response:

	35 – 15 + 5 + 2 = 27 Lily has 27 fiction books now. Note: • Other valid approaches are acceptable.
1	Student response includes 1 of the 2 elements.
0	Student response is incorrect or irrelevant.

Rubric Part B	
Score	**Description**
3	Student response includes the following elements. • **Computation component 1** = 1 point: Correct number of history books, 409. • **Computation component 2** = 1 point: Correct number of fairy-tale books, 455. • **Modeling component** = 1 point: Valid inequality correctly comparing the number of history books to the number of fairy-tale books, e.g., 409 < 455. There are 409 history books. There are 455 fairy-tale books. 409 < 455. Note: • Other valid approaches are acceptable.
2	Student response includes 2 of the 3 elements.
1	Student response includes 1 of the 3 elements.
0	Student response is incorrect or irrelevant.

#22 Rubric	
Score	**Description**
3	Student response includes the following elements. • **Modeling component** = 1 point: Correct description of how to find the area of the playground

	• **Computation component** = 1 point: Correct area of the playground • **Modeling component** = 1 point: Correct explanation for the units to use for the area of the playground Sample Student Response: One way to find the area of the playground is the count the number unit squares. There are 44 unit squares. Since each unit square represents 1 square yard, the area of the playground is 44 square yards. Or other valid approaches are acceptable.
2	Student response includes 2 of the 3 elements.
1	Student response includes 1 of the 3 elements.
0	Student response is incorrect or irrelevant.

#23 Rubric	
Score	Description
4	Student response includes the following elements. • Computation component 1 = 1 point: Correct number of unit squares Pedro will use to completely cover the flag without gaps or overlaps • Reasoning component 1 = 1 point: Correct explanation of how Pedro can use tiling to find the area of the flag • Reasoning component 2 = 1 point: Correct explanation of how Pedro can use multiplication to find the area of the flag • Modeling component 1 = 1 point: Correct expression to find the area of the flag after separating the flag into two smaller rectangles with lengths of 10 units and 2 units Sample Student Response: The flag can be covered with 8 rows of 12 unit squares, or 96 unit squares. Since Pedro uses 96 unit squares to cover the flag and each unit square has an area of 1 square foot, the area of the flag is 96 square feet. The length of the flag is 12 unit squares, or 12 feet. The width of the flag is 8 unit squares, or 8 feet. Pedro can multiply the length, 12 feet, by the width, 8 feet, to find that the area of the flag is 12 × 8, or 96 square feet. Pedro separates the flag into two smaller rectangles with lengths of 10 units, or 10 feet, and 2 units, or 2 feet. The width of each rectangle is 8 feet. So, the expression 10 × 8 + 2 × 8 can be used to find the area of the flag.

	Or other valid approaches are acceptable.
3	Student response includes 3 of the 4 elements.
2	Student response includes 2 of the 4 elements.
1	Student response includes 1 of the 4 elements.
0	Student response is incorrect or irrelevant.