DEPARTMENT OF DEFENSE EDUCATION ACTIVITY

DoDEA MATH Assessment Practice Item Answer Key

Grade 3 – Online (non-accommodated) and TTS

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.	**Student response is 23 minutes**
5.	**Student response is 24**
6.	**The model should have exactly 3 of 5 segments shaded.**
7.	**B**
8.	**See Rubric**
9.	**See Rubric Parts A & B** **Part C: C**
10.	**See Rubric**
11.	**See Rubric**
12.	**A**
13.	**Part A: B** **Part B: D**
14.	**A**
15.	**Student response is 420.**

16.	**See Rubric**
17.	**The model should have exactly 2 of 3 segments shaded.**
18.	**A**
19.	**See Rubric**
20.	**Part A: Student response is 32** **Part B: Student response is 60**
21.	**Student response is 50.**
22.	**See Rubric** **Part C: A**
23.	**Student response is 22**
24.	**See Rubric**
25.	**See Rubric**

#8 Rubric	
Score	Description
1	Student response is 3/8. Rationale: The number line is divided into 8 equal parts. So, each part is 1/8. Move 3 units to the right of 0 to plot a point at 3/8.
0	The response is incorrect or irrelevant.

#9 Rubric	
Part A	
Score	Description
1	Student response is 576. Rationale: 345 + 231 = 576
0	The response is incorrect or irrelevant.
Part B	
Score	Description
1	Student response is 350. Rationale: 674 – 324 = 350
0	The response is incorrect or irrelevant.

#10 Rubric	
Score	Description
1	Student response is Rose = 8, Tulip = 24, Lily = 20, Iris = 16. Rationale: There are 8 roses in the garden, so the bar height for Rose is 8. There are 24 tulips in the garden, so the bar height for Tulip is 24. There are 20 lilies in the garden, so the bar height for Lily is 20. There are 16 iris' in the garden, so the bar height for Iris is 16.
0	The response is incorrect or irrelevant.

#11 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
1	Student responses are the shape partitioned into 4 equal parts in gap 1, the shape partitioned into 3 equal parts in gap 2, and the shape partitioned into 2 equal parts in gap 3. Rationale: The area of each part of the shape partitioned into 2 equal parts is 1/2 of the shape. The area of each part of the shape partitioned into 3 equal parts is 1/3 of the shape. The area of each part of the shape partitioned into 4 equal parts is 1/4 of the shape.
0	The response is incorrect or irrelevant.

#19 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.

#22
Rubric

Rubric Part A

Scoring Testing is NOT Available in ABBI.

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

Scoring Testing is NOT Available in ABBI.

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.

#24 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.

#25 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 $10 \times 8 + 2 \times 8$ 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.