Math Spring Operational 2015

Grade 3
PBA Item #17
Library Visit
VF442639

Prompt

Andre visits the library. It takes Andre 26 minutes to walk from his house to the library. He stays at the library 45 minutes. His mother drives him home, which takes 15 minutes. How many more minutes does Andre spend at the library than traveling to and from the library?

Show all the steps for solving the problem. Explain each step and give the final answer.

Enter your answer, your work, and your explanation in the space provided.

Rubric

Task is worth a total of 3 points.

VF442639 Rubric			
Score	Description		
3	Student response includes the following 3 elements. • Modeling component = 2 points		
	 Valid method to find the total time traveling to and from the library 		
	 Valid method to find the difference between the time spent at the library and the time spent traveling to and from the library 		
	• Computation component = 1 point		
	o Correct number of minutes, 4		
	Sample Student Response: Add the walking to the library time and the driving home time to get the total time traveling. 26 + 15 = 41 minutes Then subtract the total traveling time from the time spent at the library to get the difference. 45-41 = 4 minutes		
	Note:		
	Any equation, drawing, or explanation that can reasonably be used to solve this problem is 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.		

Anchor Set A1 – A7

Show all the steps for solving the problem. Explain each step and give the final answer

26+15=41 45>41 45-41=4. driving and walking to and from the library takes 41 minutes 45 is greater than 41 by 4. andre is at the library 4 more minutes than going to and from the library

Anchor Paper 1 Score Point 3

This response receives full credit. The student includes each of the three required elements:

- The student uses a valid method to find the total time traveling to and from the library (26 + 15 = 41).
- The student uses a valid method to find the difference between the time spent at the library and the time spent traveling to and from the library (45 41 = 4).
- The student identifies the correct time difference (4 more minutes).

Note: The student must satisfy the first two elements through equations, explanations, or drawings. Simply providing the correct answer for total time or time difference is insufficient for credit for the first two elements.

Show all the steps for solving the problem. Explain each step and give the final answer.

1.
$$45 - 26 = 19$$

$$2.19 - 15 = 4$$

3. 4 is my answer.

First 45 - 26 show how much time he spent at the library and how long it took him to get there.

19-15 shows the remainder of his time at the library and how long it took hiim to get home. My answer is 4.

Anchor Paper 2 Score Point 3

This response receives full credit. The student includes each of the three required elements:

- The student uses a valid method to find the total time traveling to and from the library (45 26 = 19, 19 15 = 4). The process of subtracting both times traveling to and from the library from 45 minutes in a series of equations is sufficient for credit.
- The student uses a valid method to find the difference between the time spent at the library and the time spent traveling to and from the library

(45 - 26 = 19, 19 - 15 = 4). The process of subtracting both times traveling to and from the library from 45 minutes in a series of equations is sufficient for credit.

• The student identifies the correct time difference (My answer is 4).

Show all the steps for solving the problem. Explain each step and give the final answer.

Andre spends 4 minutes more at the library than traveling to and from the library. First you have to add 26 and 15 together wicth equals 41. Then you find out that it's 4 minutes more.

Anchor Paper 3 Score Point 2

This response receives partial credit. The student includes two of the three required elements:

- The student uses a valid method to find the total time traveling to and from the library (add 26 and 15 together wicth equals 41). This explanation is sufficient for credit as the student uses precise mathematical language such as "add" and "equals."
- The student identifies the correct time difference (4 minutes more).

The student does not provide a method for finding the difference between the time spent at the library and the time spent traveling to and from the library.

$$26 + 15 = 41 \text{ min}$$

Anchor Paper 4 Score Point 1

This response receives partial credit. The student includes one of the three required elements:

• The student uses a valid method to find the total time traveling to and from the library (26 + 15 = 41 min).

The student response does not show a method for finding the difference between the time spent at the library and the time spent traveling to and from the library.

The correct time difference is not identified.

Show all the steps for solving the problem. Explain each step and give the final answer.

she spends 4 more minutes at the library then going to and from the library

Anchor Paper 5 Score Point 1

This response receives partial credit. The student includes one of the three required elements:

• The student identifies the correct time difference (4 more minutes).

The student response does not show a method for finding the total time traveling to and from the library.

The student response does not show a method for finding the difference between the time spent at the library and the time spent traveling to and from the library.

$$26 + 45 + 15 = 86$$

Anchor Paper 6 Score Point 0

This response receives no credit. The student includes none of the three required elements:

The student response does not show a method for finding the total time traveling to and from the library.

The student response does not show a method for finding the difference between the time spent at the library and the time spent traveling to and from the library.

The response provides an incorrect answer (86) for the time difference. There is incorrect work shown of adding the total time traveling to and from the library with the time spent at the library (26 + 45 + 15 = 86), but no attempt is made to determine a correct time difference.

$$45 - 26 = 19$$

Anchor Paper 7 Score Point 0

This response receives no credit. The student includes none of the three required elements:

The student response does not show a method for finding the total time traveling to and from the library.

The student response does not show a method for finding the difference between the time spent at the library and the time spent traveling to and from the library. The time spent at the library and the time spent traveling to the library is correctly subtracted (45 - 26 = 19), but no attempt is made to also subtract the time spent driving home, in order to find the correct time difference. This is not sufficient for credit.

An incorrect time difference is provided (19).

Practice Set P101 - P105

Show all the steps for solving the problem. Explain each step and give the final answer.

41 because 26 plus 15 equals 41

Show all the steps for solving the problem. Explain each step and give the final answer.

$$26 + 15 = 41$$

$$45 - 41 = 4$$

Andre spends 4 more minutes at the library then traveling to and from the library.

Show all the steps for solving the problem. Explain each step and give the final answer.

$$45 - 41 = 4$$

so the answer is 4.

$$45 + 26 + 15 = 76$$

$$26 + 15 = 41$$

$$45 - 41 = 3$$

Practice Set

Paper	Score
P101	1
P102	3
P103	2
P104	O
P105	2