



CBE Assessment

Performance Assessment MA.3.5 Using Gas Card to Buy Gas Grade 3

Student Booklet

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ACKNOWLEDGEMENTS

The scoring rubrics shown in this booklet are adapted from those developed by the Center for Assessment, under creative commons license Attribution 4.0 International (CC BY 4.0)



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STUDENT DIRECTIONS

Today, everyone in class will be participating in a third-grade mathematics performance assessment. The assessment will focus on material you learned this school year. The results from this assessment will be used by the teacher, in the future, to improve instruction to students such as you in the classroom.

This performance task consists of three parts. The first part is a story problem that you will read and solve.

In the second part, you are asked to describe the mathematical processes you used to solve the story problem.

In the third part, there are two reflective questions that ask for your thoughts as you were taking the assessment.

As you respond to the questions in the spaces provided in your Student Booklet, please make sure that your responses are clear, well explained, and show your best work.

Now let's walk through your Student Booklet before beginning the assessment so you can become familiar with the parts of the assessment, where they are located, and what they look like.

Turn to page 5.

The story problem you are to solve in on page 5. Read the directions and the story, then write the three different equations asked for. Circle the best one for determining the answer to the story problem.

Next, turn to page 6.

In Part 2, on page 6, you are asked to explain your thinking as you went about solving the word problem in Part 1 through the three operational equations (addition, multiplication, division). Be sure to include the mathematical process you used for each.

Finally, turn to page 7.

After you have responded to the first two parts on this assessment, please complete the reflection questions on page 7.

You will have 40 minutes to complete all three parts of the assessment. Work through all three parts of the assessment on your own.

The Teacher Scoring Rubric that will be used to evaluate your calculations and reasoning is shown on page 4 of your Student Booklet. Be sure to review the Exceeding Expectations column. It is the highest level of performance.

Teacher Scoring Rubric—Student Version			
Dimensions	Not Yet Meeting Expectations	Meeting Expectations	Exceeding Expectations
Concepts and Procedures	I can solve the problem efficiently and accurately without any calculation mistakes.	I can solve the problem using strategies that make sense with few calculation mistakes.	I can solve part of the problem, but I am confused in some places and have calculation mistakes.
Reasoning and Explaining	I can explain the thinking I used to solve the problem using precise math vocabulary in a way that another person can easily understand my math reasoning.	I can explain the thinking I used to solve the problem using some math vocabulary	I can explain some of how I solved the problem.
Modeling and Using Tools	<p>I can accurately create and/or interpret a model to represent a real-world math concept or relationship.</p> <p>I can use a variety of math tools to solve problems.</p>	<p>I can create and/or interpret a model to represent a real-world math concept or relationship.</p> <p>I can use appropriate math tools to solve problems.</p>	<p>I can interpret a model and/or create a partial model to represent a real-world math concept or relationship, but it is inaccurate or incomplete.</p> <p>I can use some math tools to solve problems.</p>

Turn back to page 5 now. Remember, you will have 40 minutes to complete Parts 1, 2, and 3 of this assessment. I will tell you when there are 5 minutes remaining for you to complete your work.

You may begin. Remember, you have 40 minutes to complete all three parts of this assessment.

When time is up, please close your Student Booklets.

STUDENT MATERIALS

PART 1 – DATA ANALYSIS PROMPT

Using a Gas Card to Buy Gas

You and your family are going on a trip and see a gas station where gas costs \$4.00 per gallon. You stop to put gas in the car. You spend \$40 to fill the gas tank. How many gallons of gas did you buy?

Write an addition equation, a multiplication equation, and a division equation in the places below to determine how many gallons of gas your high school brother pumped into the car's tank.

After writing the three equations, select the best one for determining the number of gallons pumped into the tank. Circle that equation.

Finally, support in writing why you chose that operation. Which equation is the most efficient (quickest and easiest) for finding the number of gallons of gas. Explain why you chose that equation.

Equation 1 – Addition

Handwritten work for Equation 1:

$4.00 + 4.00 + 4.00 + 4.00 + 4.00 = 20.00$

$4 + 4 + 4 + 4 + 4 = 20$

$20 \times 2 = 40$

10 gallons

Equation 2 – Multiplication

Handwritten work for Equation 2:

$4 \times 10 = 40$

Equation 3 – Division

Handwritten work for Equation 3:

$4 \div 10 = 40$

This was Best

In Part 2, on page 6, you will explain why the equation you circled is best? Be sure to explain mathematically why you chose that equation in the space on page 6.

PART 2 – TESTING PROCESS QUESTIONS

1. Explain your thinking as you went about solving the word problem through the three operational equations (addition, multiplication, and division) in Part 1. Include the mathematical processes you used for each equation.

I did the math and I just solved it in a way to show my thinking like I used what I knew to do my thinking like when I did $4 \div 10 = 40$ because 10, 20, 30, 40. I was thinking what I learned so far so I use it.

2. Which equation is the most efficient (quickest and easiest) for finding the number of gallons of gas? Explain why you chose that equation.

I think it was division because I know what $4 \div 10 = 40$ it equals so that's what I think was the easiest.

PART 3 – REFLECTION QUESTIONS

After you have responded to the first two parts on this assessment, please complete the reflection questions below.

1. Do you think you got one of the correct answers? Explain why or why not?

Yes, because I showed all of my thinking of what I learned so I used it and I feel like I got it right.

2. Which equation was hardest to write? How did you figure it out?

Addition because we had to try to add up 4-40 I thought it was really harder

