

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

$80 + 80 = 160$
 $40 + 40 + 40 + 40$
 80 80

(Handwritten notes: A circled "\$160" is written next to the first equation. Brackets under the second equation group the first two 40s as 80 and the last two 40s as 80.)

Equation 2 – Multiplication

$5 \times 4 = 20$
 $20 \times 4 = 80$
 $8 \times 10 = 80$

(Handwritten notes: The equation $20 \times 4 = 80$ is circled.)

Equation 3 – Division

$400 \div 4 = 100$
 $800 \div 8 = 100$
 $1000 \div 10 = 100$

(Handwritten notes: The equation $1000 \div 10 = 100$ is circled. A "\$10" is written to the right of the equations.)

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.

Division was pretty easy but
the other ones were
pretty hard for me

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

The one that was
the quickest, easiest was division
because you got to do 4 boxes
to in each one

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 one of them was pretty easy for me is division that was easy for me

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

Mathallcation was hard for a hot minute but then I figured it out