

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

$$4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 = 40$$

Equation 2 – Multiplication

$$4 \times 10 = 40$$

Equation 3 – Division

$$40 \div 4 = 10$$

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 for my equation one I did $4+4+4+4+4+4+4+4+4+4=40$. Then for equation two I did 4×10 because I already know the answer is forty. Then for equation three $40 \div 4 = 40$.

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 did multiplication because I know it fast $4 \times 10 = 40$.

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?

I think I got it right because I used multiplication
and division a lot and I tried my
best.

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

The division was because $40 \div 4 = 0$ and
I said 40 but then I did it in my head
and I pretty sure I got it right.