

1. Simplify the expression.

$$2(3x + 1) + 7$$

Scoring Instructions:

$$6x + 9$$

OR equivalent simplified expression

6. Janie is at the gas station. She has \$53.25 and buys a road map that costs \$7.68.

Part A. After she buys the road map, how much money will Janie have left?

Part B. Janie wants to buy 10 gallons of gas with the remaining money. What is the highest price per gallon that she can afford? Use words and/or numbers to show your work.

Scoring Instructions:

Rubric:

- 2 Work demonstrates a **clear and complete** understanding of the mathematical concepts and/or procedures required by the task. Appropriate strategy is shown with clear and complete explanations and interpretations.
- 1 Response demonstrates a **partial** understanding of the mathematical concepts and/or procedures. Appropriate strategy is shown, but explanation or interpretation has minor flaws.

OR

Response is incorrect because of calculation errors. Work and strategy indicate a **clear** understanding of the mathematical concepts and/or procedures required by the task.

- 0 Response is irrelevant, inappropriate, or not provided.

SCORING EXEMPLAR

Maximum Points—2

Part A – [1 point]

- \$45.57
- or equivalent response

Part B – [1 point]

- \$4.55
- Or equivalent response

10. Tom wants to buy some writing pads for his office. Bookstore A offers writing pads at the prices below.

BOOKSTORE A WRITING PAD COSTS	
Number of Writing Pads	Cost (in dollars)
5	15
12	36

Bookstore B sells writing pads using the equation $C = 3.5p$ where C is the total cost, in dollars, and p is the number of writing pads.

Part A. Determine the cost of a single writing pad from each bookstore.

Part B. Which bookstore offers the least expensive rate for a writing pad? What is the cost of 33 writing pads purchased at the least expensive rate?

Use words and/or numbers to show how you got your answers.

Scoring Instructions:

Rubric:

- 4 Work demonstrates a **clear and complete** understanding of the mathematical concepts and/or procedures required by the task. Appropriate strategy is shown with clear and complete explanations and interpretations.
 - 3 Work demonstrates a **clear** understanding of the mathematical concepts and/or procedures but is not complete. Appropriate strategy is shown, but explanation or interpretation has minor flaws.
- OR
- Response is incorrect because of calculation errors. Work and strategy indicate a **clear** demonstration of the problem.
- 2 Response demonstrates a **partial** understanding of the mathematical concepts and/or procedures. Appropriate strategy is shown, but explanation or interpretation has minor flaws.
 - 1 Response shows **minimal** understanding of the mathematical concepts and/or procedures or provides no explanation or interpretation for the solution or shows major flaws.
 - 0 Response is irrelevant, inappropriate, or not provided.

SCORING EXEMPLAR

Maximum Points—4

Part A – 2 points

- Divide \$15 by 5 to arrive at the unit rate $\frac{15}{5} = 3$. Therefore, the cost of one writing pad at bookstore A is \$3. **1 point**

or equivalent work

- From viewing the equation $C = 3.5p$, the unit rate is 3.5, which means that it costs \$3.50 for a writing pad from bookstore B. **1 point**

or equivalent work

Part B – 2 points

- Bookstore A sells writing pads at the least expensive rate, \$3 per pad, compared with bookstore B at \$3.50 per pad. **1 point**

or equivalent work

- 33 writing pads at \$3 each is $33 \times 3 = 99$. It will cost \$99 for 33 writing pads from bookstore A. **1 point**

or equivalent response

11. The daily low temperatures in a city have been below 0° Fahrenheit (F) for the past two days. On Monday, the daily low temperature was $-2^\circ F$ and on Tuesday, the daily low temperature was $-7^\circ F$. What is the absolute value of the change in daily low temperatures between these two days, in degrees Fahrenheit?

Scoring Instructions:

5

14. A right rectangular prism is $4\frac{1}{2}$ units long, 3 units wide, and 2 units tall. What is the volume of the prism?

Scoring Instructions:

27 cubic units

17. Sandhill Middle School has 894 students in the entire student body. There are 453 students who are girls. What is the ratio of boys to the entire student body, written as a fraction?

Scoring Instructions:

$$\frac{441}{894}$$

OR $\frac{147}{298}$

Or EQUIVALENT FRACTION

18. The following data represent the number of times a river has flooded per year for the past 10 years.

{4, 3, 3, 2, 10, 5, 4, 2, 8, 3}

Part A. What is the median of the data?

Part B. What is the spread of the data?

Use words and/or numbers to show how you got your answer.

Scoring Instructions:

Rubric:

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- 1 Response demonstrates a **partial** understanding of the mathematical concepts and/or procedures. Appropriate strategy is shown, but explanation or interpretation has minor flaws.

OR

Response is incorrect because of calculation errors. Work and strategy indicate a **clear** understanding of the mathematical concepts and/or procedures required by the task.

- 0 Response is irrelevant, inappropriate, or not provided.

SCORING EXEMPLAR**Maximum Points—2****Part A – (1 point)**

- The median is 3.5

Line up the 10 numbers from smallest to largest and add the 5th and 6th numbers and divide by 2 to find the median. $3 + 4 = 7$ and 7 divided by 2 is 3.5.

Part B – (1 point)

- The spread is 8.

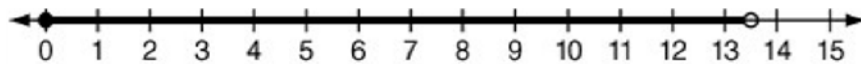
Subtract the smallest number from the largest number to find the spread. $10 - 2 = 8$

21. In a given work week, Ramone is allowed to have less than 13.5 hours of overtime. Represent the number of overtime hours Ramone can work in a week on a number line diagram.

Place an "X" in the answer box below.

Answer the question on the Response Document provided.

Click next.

Scoring Instructions:

or equivalent work

23. Drew rode his bicycle 3 miles in 30 minutes. What is his average speed, expressed as a unit rate?

Scoring Instructions:

1:10

OR

1 mile: 10 minutes

or equivalent