4. Steve has 18 blue marbles and 27 red marbles in a bag. What is the ratio of red marbles to blue marbles?

Scoring Instructions:

3:2

or equivalent expression

7. Elevation is a measure of height in relation to sea level. The highest feature on Earth is Mount Everest with an elevation +29,029 feet. The lowest feature on Earth is the Challenger Deep with an elevation -35,797 feet.

Part A. What elevation does sea level represent in this scenario?

Part B. Which feature is farther from sea level?

Part C. What elevation is halfway between these two features? Show or explain how you got your answer.

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 – 1 point

- Sea level represents 0 feet elevation.

or equivalent work

Part B – 1 point

- Challenger Deep is the greatest distance from 0 feet.

Part C – 2 points (1 for correct solution, 1 for appropriate work)

- -3,384

$$\frac{29{,}029 + 35{,}797}{2} = 32{,}413$$

$$29{,}029 \quad 32{,}413 = \quad 3{,}384$$

or equivalent response

8. John determined that his car uses 15 gallons of gas every 350 miles. At this rate, how much gas will be used traveling 147 miles?

Scoring Instructions:

6.3 gallons

OR equivalent

12. John has 3 dollars more than Amanda. If Amanda has 2 dollars, how much money does John have?

Scoring Instructions:

$2 \quad + 3$ dollars

OR equivalent

13. The River Raft Company rents canoes and kayaks. Its rates are shown in the table below.

RIVER RAFT COMPANY CANOE AND KAYAK RENTAL RATES

Item	Cost
Canoe	$12 plus $4 per hour
Kayak	$8 plus $3 per hour

Part A. Write an expression that can be used to determine the total cost of renting a canoe for *h* hours.

Part B. Next door to the River Raft Company is the Cascade Hotel. The cost for a room for one night is determined by the expression, $75 + 25$, where *g* is the number of guests staying in the room. Calculate the cost for a room for one night with 3 guests.

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

- The expression for renting a canoe for *h* hours is $12 +$.

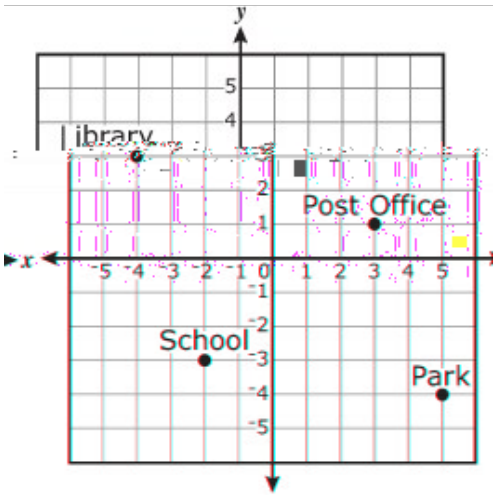
or equivalent work

Part B – 1 point

- The cost of the room for 3 people for one night is $75 + 25(3) = 75 + 75 = 150$ dollars.

or equivalent work

14. The coordinate grid below shows the locations of three buildings and the park in a town.



What is the *y*-coordinate of the ordered pair that identifies the location of the library?

Scoring Instructions:

3

16. Daniel is saving money to go to a summer camp. He had $43.25 and then added all of his allowance for the month. He has $60.25 after adding in his allowance. Write an equation to determine how much allowance, *x*, Daniel received.

Scoring Instructions:

$43.25 + = $60.25

or

= $60.25 $43.25

OR equivalent

21. Write an expression to show the quotient of the sum of 6 and *m* divided by 2.

Scoring Instructions:

(6 +) ÷ 2 or (+ 6) ÷ 2 or $\frac{(\quad)}{\quad}$ or $\frac{(\quad)}{\quad}$

or equivalent

22. Paul is saving $40 each week in order to buy a new bicycle that costs $300.

Part A. Create a table showing the week number and the amount Paul saves for the first 6 weeks.

Part B. Use the numbers from the table to create ordered pairs. On your graph paper, graph the ordered pairs. Be sure to label all parts of your graph.

Part C. Write an equation to represent the relationship between time and money saved. Be sure to identify what your variables represent.

Part D. Explain what the unit rate of the graph represents.

Part E. Determine how many weeks it will take Paul to save enough money to purchase the bike. Show your work and state your answer as the least number of weeks necessary to save the money.

Place an "X" in the answer box below.

Answer the question on the Response Document provided.

Click next.

Scoring Instructions:

Teacher directions:

Instruct the students to use words, numbers, and/or pictures to show their work.

Encourage students to find exact values for their answers.

Allow 15 to 20 minutes for this task.

Students should work individually.

Make all necessary materials available.

Suggested Materials: graph or grid paper and rulers

Maximum Points--8

Part A--1 point

Student creates a table showing the savings amount for the first 6 weeks.

Sample work

Paul's Savings

Week number	Savings
1	40
2	80
3	120
4	160
5	200
6	240

or other appropriate work

Part B--2 points

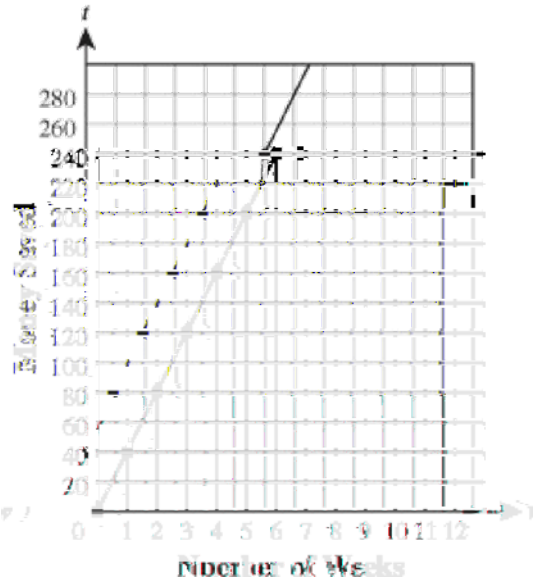
[1 point]

Student graphs the ordered pairs.

[1 point]

Students labels all parts of the graph.

Sample work



or other appropriate work

Part C--2 points

[1 point]

Student identifies what the variables represent.

Sample work

Let *w* represent the number of weeks, and let *t* represent the total savings.

or other appropriate work

[1 point]

Student writes an equation representing the relationship between time and money saved.

Sample work

= 40

or other appropriate work

Part D--1 point

Student explains what the unit rate represents.

Sample explanation

The unit rate is how much Paul saves each week.

or other appropriate explanation

Part E--2 points

[1 point]

Student determines that it will take Paul 8 weeks to save $300.

[1 point]

Student shows work.

Sample work

$= 40$

$300 = 40$

$300 \div 40 =$

$= 7.5$

or other appropriate work