# Unit 1

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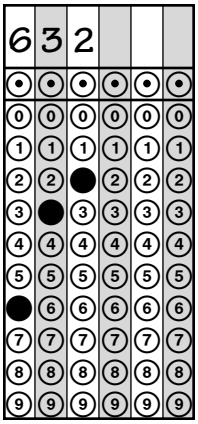
7. See below for examples on how to correctly complete an answer grid.

## EXAMPLES

To answer 632 in a question, fill in the answer grid as shown below.

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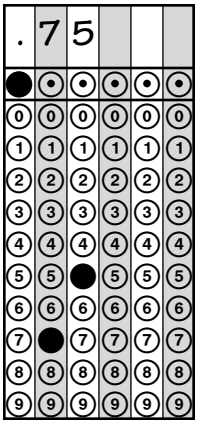


**1.** Which statement about the corresponding terms in both Pattern A and Pattern B is always true?

Pattern A: 0, 5, 10, 15, 20, 25, 30

Pattern B: 0, 10, 20, 30, 40, 50, 60

**A.** Each term in Pattern A is 2 times the corresponding term in Pattern B.

**B.** Each term in Pattern A is $\frac{1}{2}$ times the corresponding term in Pattern B.

**C.** Each term in Pattern A is 5 less than the corresponding term in Pattern B.

**D.** Each term in Pattern A is 10 less than the corresponding term in Pattern B.

**2.** An expression is shown.

$$\frac{5}{6} + \frac{3}{12}$$

Which expressions have like denominators that could be used as a next step to add the two fractions?

Select the **two** correct answers.

**A.** $\frac{5}{6} + \frac{1}{4}$

**B.** $\frac{5}{6} + \frac{3}{6}$

**C.** $\frac{10}{12} + \frac{3}{12}$

**D.** $\frac{5}{12} + \frac{6}{12}$

**E.** $\frac{5}{12} + \frac{6}{24}$

**F.** $\frac{20}{24} + \frac{6}{24}$

Use the information provided to answer Part A through Part C for question 3.

Shannon is building a rectangular garden that is 18 feet wide and 27 feet long.

**3. Part A**

Write an equation that represents the area of Shannon's garden. In your equation, let *g* represent the area of Shannon's garden. Then solve your equation.

Enter your equation and your solution in the space provided.

**Part B**

Shannon is putting a fence around the garden, except where there is a gate that is 3 feet wide.

One foot of the fence costs $43. The cost of the gate is $128.

Write an expression that represents the total cost of the fence and the gate.

Explain how you determined your expression.

Enter your expression and your explanation in the space provided.

**Part C**

Use your expression from Part B to find the total cost, in dollars, of the fence and the gate.

Enter your answer in the space provided.

**4.** Which statement correctly compares two values?

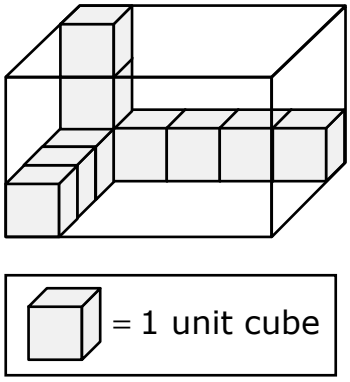
**A.** The value of the 6 in 26.495 is $\frac{1}{10}$ the value of the 6 in 17.64.

**B.** The value of the 6 in 26.495 is 10 times the value of the 6 in 17.64.

**C.** The value of the 6 in 26.495 is $\frac{1}{100}$ the value of the 6 in 17.64.

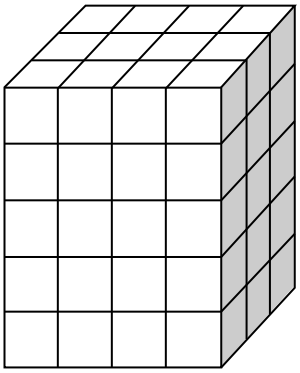
**D.** The value of the 6 in 26.495 is 100 times the value of the 6 in 17.64.

**5.** What is the volume of the rectangular prism in cubic units?




Enter your answer in the box.

**6.** In this right rectangular prism, each small cube measures 1 unit on each side.



- What is the volume of the prism?
- Explain how you found the volume. You may show your work in your explanation.
- What would be the dimensions of a new right rectangular prism that has 20 fewer unit cubes than the original prism?
- Explain how you determined the dimensions of the new right rectangular prism.

Enter your answers and your explanations in the space provided.

**7.** Select the **two** correct statements.

**A.** The product of $\frac{3}{5}$ and 4 is greater than 4.

**B.** The product of $\frac{3}{5}$ and 4 is less than $\frac{3}{5}$.

**C.** The product of $1\frac{1}{2}$ and 2 is greater than $1\frac{1}{2}$.

**D.** The product of $1\frac{1}{2}$ and 2 is less than 2.

**E.** The product of $\frac{13}{4}$ and $\frac{5}{2}$ is greater than $\frac{13}{4}$.

**F.** The product of $\frac{13}{4}$ and $\frac{5}{2}$ is less than $\frac{5}{2}$.

**8.** Which figure is always a rectangle?

**A.** square

**B.** rhombus

**C.** quadrilateral

**D.** parallelogram

**9.** Which expression matches the statement, "the sum of 2 and 4 subtracted from 9"?

**A.** $2 + 9 - 4$

**B.** $9 - 2 + 4$

**C.** $9 - (2 + 4)$

**D.** $(2 + 4) - 9$



GO ON ▶

Use the information provided to answer Part A and Part B for question 10.

Diana works at a clothing store. She sold $\frac{1}{5}$ of the total number of green shirts on Monday and $\frac{3}{12}$ of the total number of green shirts on Tuesday.

**10. Part A**

What fraction of green shirts did Diana sell on Monday and Tuesday?

**A.** $\frac{8}{13}$

**B.** $\frac{4}{17}$

**C.** $\frac{5}{36}$

**D.** $\frac{27}{60}$

**Part B**

Diana sold $\frac{2}{15}$ of the total number of green shirts on Wednesday. What is the difference in the fraction of the total number of green shirts that were sold on Tuesday and Wednesday?

**A.** $\frac{7}{60}$

**B.** $\frac{5}{27}$

**C.** $\frac{1}{3}$

**D.** $\frac{1}{12}$

**11.** Greg is volunteering at a track meet. He is in charge of providing the bottled water. Greg knows these facts:

- The track meet will last 3 days.
- There will be 117 athletes, 7 coaches, and 4 judges attending the track meet.
- One case of bottled water contains 24 bottles.

The table shows the number of bottles of water each athlete, coach, and judge will get for each day of the track meet.

**Bottled Water for Track Meet**

| Person Attending | Number of Bottles |
|---|---|
| Athlete | 4 |
| Coach | 3 |
| Judge | 2 |

What is the **fewest** number of cases of bottled water Greg will need to provide for all the athletes, coaches, and judges at the track meet? Show your work or explain how you found your answer using equations.

Enter your answer and your work or explanation in the space provided.

**12.** Which of these are equal to 83.041?

Select the **two** correct answers.

**A.** eighty-three and forty-one tenths

**B.** $8 \times 10 + 3 \times 1 + 4 \times \frac{1}{10} + 1 \times \frac{1}{100}$

**C.** eighty-three and forty-one hundredths

**D.** $8 \times 10 + 3 \times 1 + 4 \times \frac{1}{100} + 1 \times \frac{1}{1{,}000}$

**E.** eighty-three and forty-one thousandths



STOP

# Unit 2



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**EXAMPLES**

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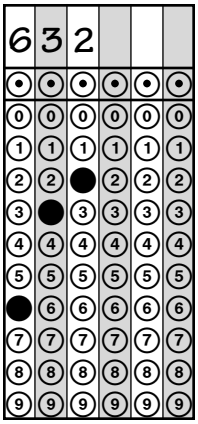


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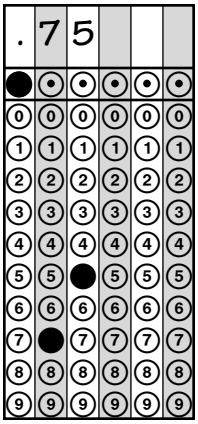


**13.** Len walks $\frac{3}{10}$ mile in the morning to school. He walks $\frac{2}{5}$ mile in the afternoon to a friend's house.

Len says that he walks a total of $\frac{5}{15}$ mile in the morning and afternoon.

Which **two** statements are true?

**A.** Since $\frac{3}{10}$ plus $\frac{2}{5}$ is $\frac{5}{15}$, the total of $\frac{5}{15}$ is reasonable.

**B.** Since $\frac{5}{15}$ is less than $\frac{2}{5}$, the total of $\frac{5}{15}$ is not reasonable.

**C.** The fractions $\frac{5}{15}$, $\frac{3}{10}$, and $\frac{2}{5}$ are all less than $\frac{1}{2}$, so the total of $\frac{5}{15}$ is reasonable.

**D.** The fraction $\frac{5}{15}$ is $\frac{1}{3}$, and $\frac{1}{3}$ is greater than $\frac{3}{10}$. Since $\frac{5}{15}$ is greater than one of the addends, the total of $\frac{5}{15}$ is reasonable.

**E.** The fractions $\frac{3}{10}$ and $\frac{2}{5}$ are each greater than $\frac{1}{4}$, so the total must be greater than $\frac{1}{2}$. The fraction $\frac{5}{15}$ is less than $\frac{1}{2}$, so the total of $\frac{5}{15}$ is not reasonable.

Use the information provided to answer Part A and Part B for question 14.

There are two tanks at the aquarium, Tank A and Tank B. Each tank has two sections.

**14. Part A**

The volume of one section of Tank A is 24 cubic feet. The volume of the other section of Tank A is 96 cubic feet.

What is the total volume, in cubic feet, of Tank A?

**A.** 4

**B.** 72

**C.** 120

**D.** 2,304

**Part B**

Tank B has the same volume as Tank A.

The volume of one section of Tank B is 45 cubic feet. What is the volume, in cubic feet, of the other section of Tank B?

Enter your answer in the box.

**15.** Which expression is equal to $\frac{7}{8}$?

**A.** $8 - 7$

**B.** $7 \times 8$

**C.** $\frac{8}{7}$

**D.** $7 \div 8$

**16.** Kurt drew a rectangular maze with a length of $\frac{3}{4}$ foot and a width of $\frac{5}{12}$ foot. What is the area, in square feet, of Kurt's maze?

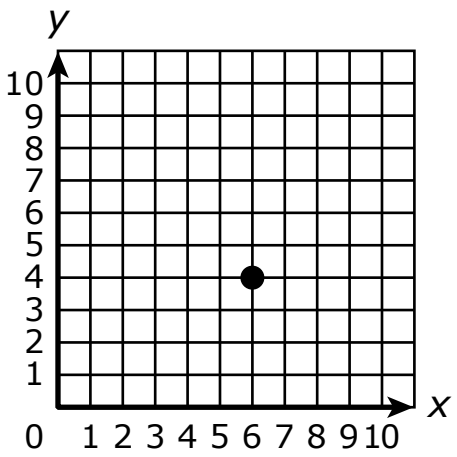
**A.** $\frac{15}{48}$

**B.** $\frac{8}{16}$

**C.** $\frac{20}{36}$

**D.** $\frac{15}{16}$

**17.** Select the **three** statements that correctly describe the point plotted on the coordinate plane.




**A.** The point is located at the ordered pair (4, 6).

**B.** The point is located at the ordered pair (6, 4).

**C.** The *x*-coordinate is 6 and the *y*-coordinate is 4.

**D.** The *x*-coordinate is 4 and the *y*-coordinate is 6.

**E.** The point is 4 units to the right of the origin on the *x*-axis and 6 units up from the origin on the *y*-axis.

**F.** The point is 6 units to the right of the origin on the *x*-axis and 4 units up from the origin on the *y*-axis.

**18.** An egg farm packages 264 total cartons of eggs each month. The farm has 3 different sizes of cartons.

- The small carton holds 8 eggs, and $\frac{1}{6}$ of the total cartons are small.
- The medium carton holds 12 eggs, and $\frac{2}{3}$ of the total cartons are medium.
- The large carton holds 18 eggs, and the rest of the total cartons are large.

Determine how many of each size of carton is needed each month. Then determine how many eggs are needed to fill the 264 cartons. Show your work or explain your answers.

Enter your answers and your work or explanations in the space provided.

**19. Part A**

Select the **two** equations that are correct when the number 20 is entered in the box.

**A.** $\square \times 85 = 1{,}700$

**B.** $\square \div 4 = 50$

**C.** $1{,}500 \div \square = 75$

**D.** $120 \times 6 = \square$

**E.** $\square \times 50 = 100$

**Part B**

Select the **two** equations that are correct when the number 200 is entered in the box.

**A.** $\square \times 85 = 17{,}000$

**B.** $\square \div 40 = 50$

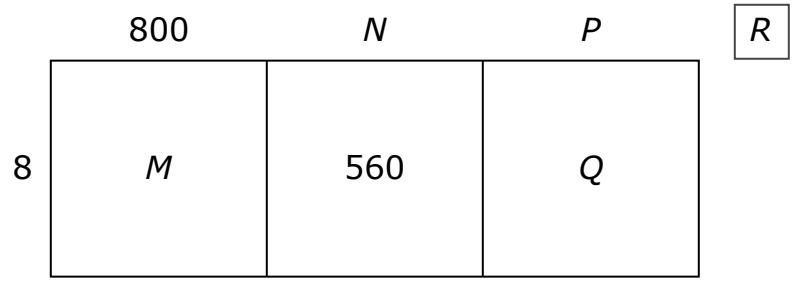
**C.** $15{,}000 \div \square = 75$

**D.** $1{,}200 \times 6 = \square$

**E.** $\square \times 50 = 1{,}000$

**20.** A teacher drew an area model to find the value of 6,986 ÷ 8.

**Teacher's Model for 6,986 ÷ 8**




not to scale

- Determine the number that each letter in the model represents and explain each of your answers.
- Write the quotient and remainder for 6,986 ÷ 8.
- Explain how to use multiplication to check that the quotient is correct. You may show your work in your explanation.

Enter your answers and your explanations in the space provided.



STOP

# Unit 3

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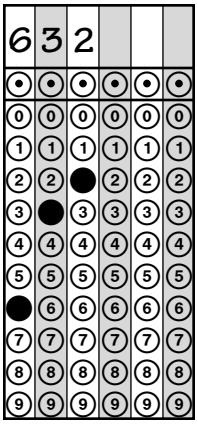


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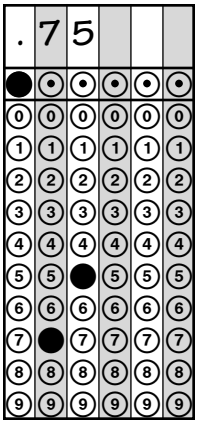







GO ON ▶

**21.** Enter your answer in the box.

$0.35 \times 1.5 =$

**22.** Jim uses ribbon to make bookmarks. Jim has 9 feet of ribbon. He uses $\frac{1}{3}$ foot of ribbon to make each bookmark.

What is the total number of bookmarks Jim makes with all 9 feet of ribbon?

Enter your answer in the box.

Use the information provided to answer Part A and Part B for question 23.

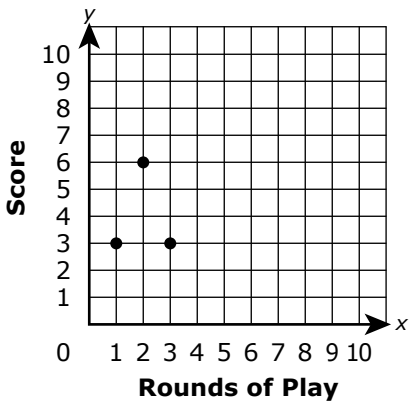
Mia is playing several rounds of a word game. Each coordinate pair shows the number of a round and Mia's score for that round. She is keeping track of these coordinate pairs on a coordinate plane.

- Round 1: (1, 3)
- Round 2: (2, 6)
- Round 3: (3, 3)

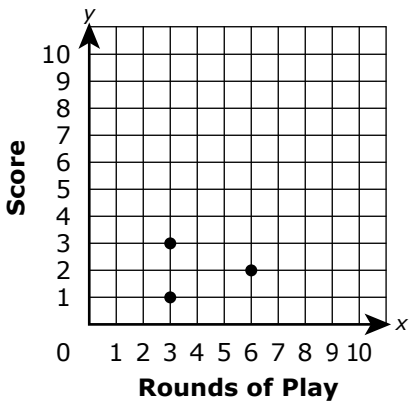
**23. Part A**

Which coordinate plane correctly shows Mia's scores for the first three rounds of play?

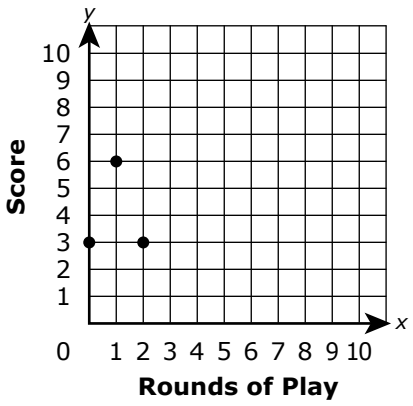
**A.**



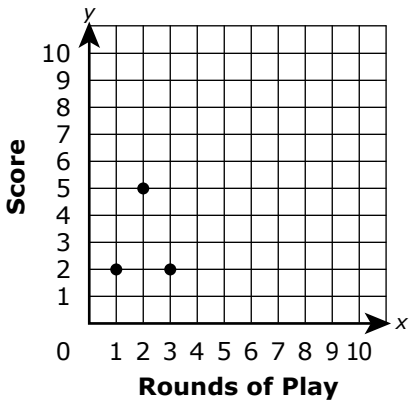

**B.**




**C.**




**D.**



**Part B**

In round 4, Mia scores the same number of points as in rounds 2 and 3 combined.

What is the coordinate pair that represents Mia's score for round 4?

**A.** (4, 5)

**B.** (9, 4)

**C.** (5, 4)

**D.** (4, 9)

**24.** Enter your answer in the box.

1,534 ÷ 26 =

**25.** Which **two** conversions are correct?

**A.** 7 mm = 70 cm

**B.** 7 cm = 0.07 m

**C.** 7,000 m = 7 km

**D.** 0.7 cm = 70 mm

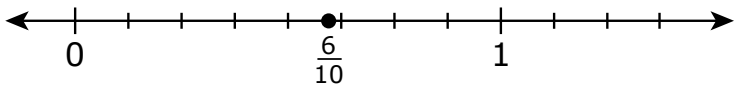
**E.** 7 m = 7,000 km

**26.** A cereal box has a height of 32 centimeters. It has a base with an area of 160 square centimeters.

What is the volume, in cubic centimeters, of the cereal box?

Enter your answer in the box.

**27.** On Saturday, Craig rode his bike $\frac{5}{8}$ of a mile. On Sunday, he rode his bike $\frac{1}{2}$ of a mile. Craig added $\frac{5}{8}$ and $\frac{1}{2}$ to find the total distance, in miles, he rode his bike on the two days. Craig said $\frac{5}{8} + \frac{1}{2} = \frac{6}{10}$ and plotted $\frac{6}{10}$ on this number line.




- Explain why Craig's answer is not reasonable.
- Find the total distance, in miles, Craig rode on his bike on Saturday and Sunday.
- Explain how to use the number line to show your answer is correct.

Enter your answer and explanations in the space provided.

**28.** Jen makes a rectangular banner. It is $\frac{3}{4}$ yard long and $\frac{1}{4}$ yard wide.

What is the area, in square yards, of the banner?

**A.** $\frac{3}{16}$

**B.** $\frac{3}{8}$

**C.** 1

**D.** 3

**29.** Which explanation about figures is correct?

**A.** All rhombuses are parallelograms. Parallelograms have 2 pairs of parallel sides.
Therefore, all rhombuses have 2 pairs of parallel sides.

**B.** All rhombuses are parallelograms. Parallelograms have exactly 1 pair of parallel sides.
Therefore, all rhombuses have exactly 1 pair of parallel sides.

**C.** Only some rhombuses are parallelograms. Parallelograms have 2 pairs of parallel sides.
Therefore, only some rhombuses have 2 pairs of parallel sides.

**D.** Only some rhombuses are parallelograms. Parallelograms have exactly 1 pair of parallel sides.
Therefore, only some rhombuses have exactly 1 pair of parallel sides.





GO ON ▶

**30.** Which **two** statements about rounding decimals are correct?

**A.** The number 5.066 rounded to the nearest hundredth is 5.07.

**B.** The number 5.074 rounded to the nearest hundredth is 5.08.

**C.** The number 5.117 rounded to the nearest hundredth is 5.10.

**D.** The number 5.108 rounded to the nearest hundredth is 5.11.

**E.** The number 5.025 rounded to the nearest hundredth is 5.02.

Use the information provided to answer Part A and Part B for question 31.

Tom has a water tank that holds 5 gallons of water.

**31. Part A**

Tom uses water from a full tank to fill 6 bottles that each hold 16 ounces and a pitcher that holds $\frac{1}{2}$ gallon.

How many ounces of water are left in the water tank?

Enter your answer in the box.

**Part B**

Tom drinks 4 pints of water a day.

How many full tanks of water will he drink in 30 days?

Enter your answer in the box.





STOP

# Mathematics – Grade 5

# Practice Test Answer and Alignment Document

# Pencil-and-Paper ABO

The following pages include the answer key for all machine-scored items, followed by the rubrics for the hand-scored items.

- The rubrics show sample student responses. Other valid methods for solving the problem can earn full credit unless a specific method is required by the item.
- In items where the scores are awarded for full and partial credit, the definition of partial credit will be confirmed during range-finding (reviewing sets of real student work).
- If students make a computation error, they can still earn points for reasoning or modeling.

## Unit 1

| Item Number | Answer Key | Evidence Statement Key/Content Scope |
|---|---|---|
| 1. | **B** | 5.OA.3 |
| 2. | **C, F** | 5.NF.1-1 |
| 3. | Part A: see rubric<br>Part B: see rubric<br>Part C: see rubric | 5.D.2/4.MD.3 |
| 4. | **B** | 5.NBT.1 |
| 5. | **60** | 5.MD.3 |
| 6. | See rubric | 5.C.1-3/5.MD.5a |
| 7. | **C, E** | 5.NF.5a |
| 8. | **A** | 5.G.4 |
| 9. | **C** | 5.OA.2-1 |

| | | |
|---|---|---|
| 10. | Part A: **D**<br>Part B: **A** | 5.NF.A.Int.1 |
| 11. | See rubric | 5.D.1/5.NBT.5 |
| 12. | **D, E** | 5.NBT.3a |

## Unit 2

| Item Number | Answer Key | Evidence Statement Key/Content Scope |
|---|---|---|
| 13. | **B, E** | 5.NF.2-2 |
| 14. | Part A: **C**<br>Part B: **75** | 5.MD.5c |
| 15. | **D** | 5.NF.3-1 |
| 16. | **A** | 5.NF.4b-1 |
| 17. | **B, C, F** | 5.G.1 |
| 18. | See rubric | 5.D.1/5.NF.4 and 5.NF.6 |
| 19. | Part A: **A, C**<br>Part B: **A, C** | 5.NBT.Int.1 |
| 20. | See rubric | 5.C.4-3/5.NBT.6 |

## Unit 3

| Item Number | Answer Key | Evidence Statement Key/Content Scope |
|---|---|---|
| 21. | **0.525** | 5.NBT.7-3 |
| 22. | **27** | 5.NF.7c |
| 23. | Part A: **A**<br>Part B: **D** | 5.G.2 |
| 24. | **59** | 5.NBT.6 |
| 25. | **B, C** | 5.MD.1-1 |

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|---|---|---|
| 26. | **5,120** | 5.MD.5b |
| 27. | See rubric | 5.C.5-1/5.NF.2 |
| 28. | **A** | 5.NF.6-1 |
| 29. | **A** | 5.G.3 |
| 30. | **A, D** | 5.NBT.4 |
| 31. | Part A: **480**<br>Part B: **3** | 5.MD.1-2 |

Rubrics start on the next page.

| Unit 1 #3 Rubric Part A | |
|---|---|
| **Score** | **Description** |
| **2** | Student response includes each of the following 2 elements.<br>• Computation component: 486 square feet<br>• Modeling component: $18 \times 27 = g$ |
| **1** | Student response contains 1 of the 2 elements. |
| **0** | Student response is incorrect. |

| Unit 1 #3 Rubric Part B | |
|---|---|
| **Score** | **Description** |
| **3** | Student response includes each of the following 3 elements.<br>• Modeling component: The student provides an expression to represent the total cost of the fence and gate. For example: "$43 \times (18 + 18 + 27 + 27 - 3) + 128$" OR other valid expression.<br>• Modeling component: The student explains that the expression in parentheses $(18 + 18 + 27 + 27 - 3)$ is needed to find the perimeter of the lawn minus the gate to find the length of fence needed.<br>• Modeling component: The student explains that the length of fence determined has to be multiplied by the cost of the fence and then the cost of the gate has to be added to the result.<br><br>Note: The term *perimeter* does not have to be used. |
| **2** | Student response includes 2 of the 3 elements. |
| **1** | Student response includes 1 of the 3 elements. |
| **0** | Student response is incorrect or irrelevant. |

| Unit 1 #3 Rubric Part C | |
|---|---|
| **Score** | **Description** |
| **1** | Computation component: $3,869<br><br>Note: A student who correctly evaluates an incorrect expression for finding the total cost of the fence and gate will receive the computation point. |

| Unit 1 #6 Rubric | |
|---|---|
| **Score** | **Description** |
| **3** | Student response contains the following 3 elements. |

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|---|---|
| | • Computation component: Correct volume of the prism, 60 cubic units.<br>• Reasoning component: Valid explanation to support the volume of the prism.<br>• Reasoning component: Provides new dimensions and a valid explanation of how the new dimensions were determined.<br><br>Sample Student Response:<br><br>The volume of the prism is 60 cubic units because $4 \times 5 \times 3 = 60$.<br>The dimensions of a new right rectangular prism that has 20 fewer unit cubes than the original prism could be 4 units wide by 5 units tall by 2 units deep. I determined these dimensions by recognizing that each layer of the original prism that is 4 units wide by 5 units tall by 1 unit deep has a volume of 20 cubic units. So I took one of these layers away from the original prism.<br>(Or other valid explanation.) |
| **2** | Student response contains 2 of the 3 elements. |
| **1** | Student response contains 1 of the 3 elements. |
| **0** | Student response is incorrect or irrelevant. |

| Unit 1 #11 Rubric | |
|---|---|
| **Score** | **Description** |
| **3** | Student response contains the following 3 elements.<br>• Computation component: 63 cases of water.<br>• Modeling component: The student models or shows how to calculate the total number of water bottles needed.<br>• Modeling component: The student models or shows how to calculate the total number of cases of water bottles needed.<br><br>Student Sample Response:<br><br>I need to multiply to find the number of bottles the athletes, coaches, and judges will get each day.<br>▪ Each athlete will get 4 bottles, and there are 117 athletes, and $117 \times 4 = 468$, so the athletes need a total of 468 bottles each day.<br>▪ Each coach will get 3 bottles, and there are 7 coaches, and $7 \times 3 = 21$, so the coaches will need a total of 21 bottles each day.<br>▪ Each judge will get 2 bottles, and there are 4 judges, and |

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| | $4 \times 2 = 8$, so the judges will need a total of 8 bottles each day.<br>▪ To find the number of bottles needed for one day, I need to add $468 + 21 + 8 = 497$.<br>▪ The track meet lasts 3 days. To find the total number of bottles I need to multiply $497 \times 3 = 1{,}491$ which is 1,491 total bottles.<br><br>Greg needs to provide 1,491 bottles of water. There are 24 bottles in each case, so I need to divide. Since $1{,}492 \div 24 = 62$ remainder 3, Greg needs to provide a minimum of 63 cases of water to have 1,491 bottles in all. |
| **2** | Student response includes 2 of the 3 elements. Or, the student has a computation error, but gives valid explanations or work shows a valid process. |
| **1** | Student response includes 1 of the 3 elements. |
| **0** | Student response is incorrect. |

| Unit 2 #18 Rubric | |
|---|---|
| **Score** | **Description** |
| **3** | Student response includes each of the following 3 elements.<br>• Computation: Number cartons: 44, 176, 44; 3256<br>• Modeling component: Correct work or explanation shown for determining the number of cartons of each size needed.<br>• Modeling component: Correct work or explanation shown for determining the total number of eggs needed to fill the 264.cartons.<br><br>Sample Student Response:<br><br>There are $264 \times \frac{1}{6} = \frac{264}{6} = 44$ cartons that hold 8 eggs. There are $264 \times \frac{2}{3} = \frac{528}{3} = 176$ cartons that hold 12 eggs. There are $264 - 44 - 176 = 44$ cartons that hold 18 eggs. The total number of eggs needed to fill all 264 cartons is $44 \times 8 + 176 + 12 + 44 \times 18 = 3{,}256$. |
| **2** | Student response includes 2 of the 3 elements. Or, the student has a computation error, but provides a complete and valid explanation or process. |
| **1** | Student response includes 1 of the 3 elements. |
| **0** | Student response is incorrect or irrelevant. |

| Unit 2 #20 Rubric | |
|---|---|
| **Score** | **Description** |
| **4** | Student response contains the following 4 elements.<br>• Computation component: Correct numbers for each letter in the model<br>• Reasoning component: Valid explanation for finding the numbers in the model<br>• Computation Component: Correct value for quotient, 873 remainder 2<br>• Reasoning component: Valid explanation or work to show multiplication check<br><br>Sample Student Response:<br><br>The value of $M$ is 6,400 because $8 \times 800 = 6{,}400$. The value of $N$ is 70 because $8 \times 70 = 560$. Then $6{,}400 + 560 = 6{,}960$. So there are 26 left. Since $8 \times 3 = 24$, the value of $P$ is 3 and the value of $Q$ is 24. There are 2 left over, so $R$ is 2.<br><br>The value of $6{,}986 \div 8$ is 873 with remainder 2.<br><br>To check by multiplication, first multiply 873 by 8. Then add 2 to the product.<br>$873 \times 8 = 6{,}984$<br>$6{,}984 + 2 = 6{,}986$ |
| **3** | Student response includes 3 of the 4 elements. If a student has a computation error, points can still be awarded for correct reasoning. |
| **2** | Student response includes 2 of the 4 elements. If a student has a computation error, points can still be awarded for correct reasoning. |
| **1** | Student response includes 1 of the 4 elements. If a student has a computation error, points can still be awarded for correct reasoning. |
| **0** | Student response is incorrect or irrelevant. |

| Unit 3 #27 Rubric | |
|---|---|
| **Score** | **Description** |
| **3** | Student response includes each of the following 3 elements.<br>• Reasoning component: Valid explanation of why the Craig's answer is not reasonable<br>• Computation component: Correct number of miles Craig rode is |

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|---|---|
| | $\frac{9}{8}$<br>• Reasoning component: Valid explanation using number line to show why answer is correct<br><br>Sample Student Response:<br><br>Craig's answer is not reasonable because $\frac{5}{8}$ is more than $\frac{1}{2}$ and he is adding $\frac{1}{2}$ to a number that is more than $\frac{1}{2}$ so his answer should be more than 1.<br><br>Craig rode $\frac{5}{8} + \frac{1}{2} = \frac{5}{8} + \frac{4}{8} = \frac{9}{8}$ miles.<br><br>Since $\frac{4}{8} = \frac{1}{2}$, I start at $\frac{5}{8}$ on the number line and move over 4 more $\frac{1}{8}$s to add $\frac{5}{8} + \frac{4}{8}$. Now I am at the number $\frac{9}{8}$ so I know my answer is correct. |
| **2** | Student response includes 2 of the 3 elements. If a computation error is made, the student may still get points for reasoning. |
| **1** | Student response includes 1 of the 3 elements. |
| **0** | Student response is incorrect or irrelevant. |