Georgia

Milestones

Assessment System

Analytic Geometry

Mathematics

Item and Scoring Sampler

2018

TABLE OF CONTENTS

INTRODUCTION

The Georgia Milestones Analytic Geometry assessment is a criterion-referenced test designed to provide information about how well a student has mastered the grade-level state-adopted content standards in mathematics. This assessment consists of a variety of item types, including selected-response and constructed-response items.

TYPES OF ITEMS INCLUDED IN THE SAMPLER AND USES OF THE SAMPLER

The purpose of this sampler is to provide samples of the types of constructed-response items that appear on the operational Georgia Milestones Analytic Geometry assessment. The items in this sampler may be used for classroom instruction purposes. The samples may be copied, and classroom teachers may find it beneficial to have students respond to one or more of the samples. Teachers can then use the information in the sampler as a guide to score responses written by their own students.

MATHEMATICS CONSTRUCTED-RESPONSE ITEM TYPES

A mathematics **constructed-response** item asks a question and solicits the student to provide a response constructed on his or her own, as opposed to selecting from options provided. The constructed-response items on the End of Course (EOC) Mathematics assessment are worth up to two points. Partial credit may be awarded if part of the response is correct.

An **extended constructed-response** item is a specific type of constructed-response item that elicits a longer, more detailed response from the student than does a two-point constructed-response item. The extended constructed-response items on the EOC assessment are worth up to four points. Partial credit may be awarded if part of the response is correct.

ITEM ALIGNMENT

Each constructed-response item included in this sampler has been through a rigorous review process with Georgia educators to ensure alignment with the content standards. The content standard for each sample item is provided in this sampler in the item information tables.

DEPTH OF KNOWLEDGE

In addition to being aligned to the standards, the sample items included in this sampler were developed with a particular emphasis on cognitive complexity, or Depth of Knowledge (DOK). The DOK level is provided for each item in this sampler in the item information table. DOK measures the level of cognitive demand required to complete an assessment item. The following descriptions show the expectations of the DOK levels in greater detail.

Level 1 (Recall of Information) generally requires students to identify, list, or define, often asking them to recall who, what, when, and where. Consequently, this level usually asks students to recall facts, terms, concepts, and trends and may ask them to identify specific information contained in documents, excerpts, quotations, maps, charts, tables, graphs, or illustrations. Items that require students to "describe" and/or "explain" could be classified at Level 1 or Level 2, depending on what is to be described and/or explained. A Level 1 "describe" and/or "explain" would require students to recall, recite, or reproduce information.

Level 2 (Basic Reasoning) includes the engagement of some mental processing beyond recalling or reproducing a response. A Level 2 "describe" and/or "explain" would require students to go beyond a description or explanation of recalled information to describe and/or explain a result or "how" or "why."

Level 3 (Complex Reasoning) requires reasoning, using evidence, and thinking on a higher and more abstract level than Level 1 and Level 2. Students will go beyond explaining or describing "how and why" to justifying the "how and why" through application and evidence. Level 3 questions often involve making connections across time and place to explain a concept or "big idea."

Level 4 (Extended Reasoning) requires the complex reasoning of Level 3 with the addition of planning, investigating, applying significant conceptual understanding, and/or developing that will most likely require an extended period of time. Students should be required to connect and relate ideas and concepts within the content area or among content areas in order to be at this highest level. The distinguishing factor for Level 4 would be evidence (through a task, a product, or an extended response) that the cognitive demands have been met.

ITEM AND SCORING SAMPLER FORMAT

Sample constructed-response items are provided in this sampler, along with any related stimulus information such as a passage or graphic. Following the item is the scoring guide for the constructed-response item. The scoring guide includes the item information table, the item-specific scoring rubric, and annotated sample student responses at each score point.

For mathematics items, each item-specific scoring rubric includes an exemplar as one possible correct response. Readers are trained to give credit to alternate valid responses.

The Georgia Milestones assessment may be administered in paper-and-pencil format or online. As a result, this sampler includes samples of students' responses in both formats. This symbol  is used to note the format of a sample online item. It also indicates a sample online response.

Example Constructed-Response Item Information Table

Standard:	**Item Depth of Knowledge:**

Analytic Geometry

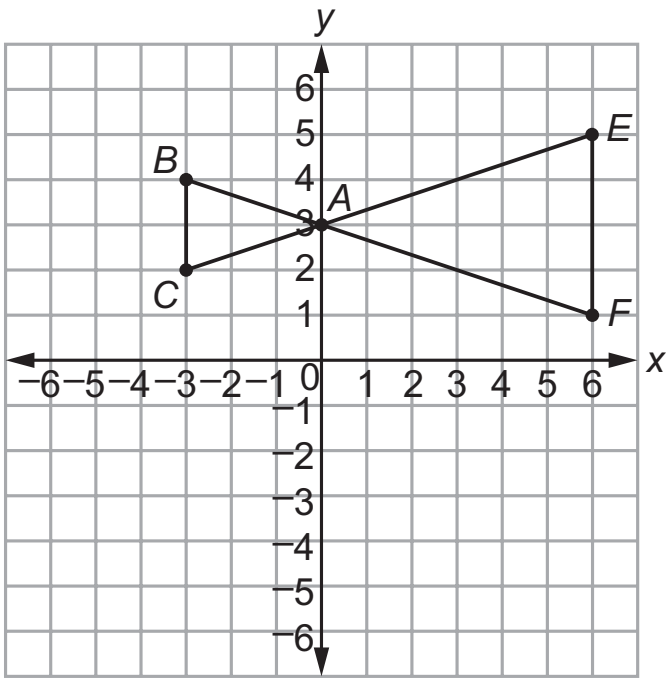
MATHEMATICS

Sample Constructed-Response Items

ITEM 1: CONSTRUCTED-RESPONSE

MGSE9-12.G.SRT.5

1. Consider the two triangles shown.



Part A What transformation or series of transformations maps triangle *ABC* onto triangle *AEF*?
Type your answer in the space provided.

Part B Explain why $\angle ABC$ is congruent to $\angle AEF$ and why $\angle ACB$ is congruent to $\angle AFE$.
Type your answer in the space provided.

Scoring Guide

Item 1 Information

Standard: MGSE9-12.G.SRT.5 Use the properties of similarity transformations to establish the AA criterion for two triangles to be similar.	**Item Depth of Knowledge:** 3 Strategic Thinking Student uses reasoning and develops a plan or sequence of steps; process has some complexity.

ITEM-SPECIFIC SCORING RUBRIC

Score	Rationale
2	Response demonstrates a complete understanding of the standard. Give 2 points for student identifying a series of transformations that maps triangle *ABC* onto triangle *AEF* and explaining why the corresponding angles are congruent. Exemplar Response: Reflection across the *y*-axis and then dilation about point *A* by a scale factor of 2. (*1 point*) **AND** The dilation makes the triangles similar, and similar triangles have congruent angles. (*1 point*) **OR** Other valid response
1	Response demonstrates partial understanding of the standard. Student earns 1 point for answering 1 key element.
0	Response demonstrates limited to no understanding of the standard. Student earns 0 points because the student does not show understanding of establishing the AA criterion using transformation.

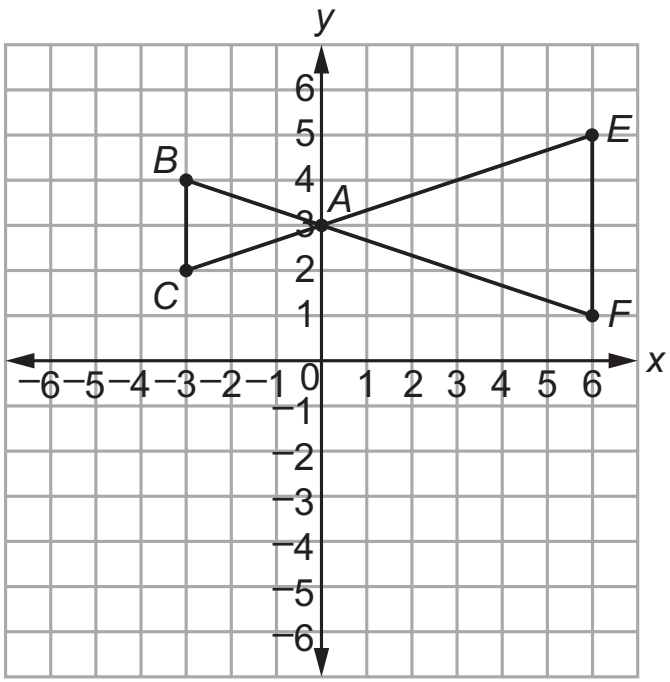
NO TEST MATERIAL
ON THIS PAGE

STUDENT RESPONSES

MGSE9-12.G.SRT.5

Response Score: 2

1. Consider the two triangles shown.



Part A What transformation or series of transformations maps triangle *ABC* onto triangle *AEF*?
Write your answer in the space provided on your answer document.

Part B Explain why $\angle ABC$ is congruent to $\angle AEF$ and why $\angle ACB$ is congruent to $\angle AFE$.
Write your answer in the space provided on your answer document.

Part A

Dilation with the center at point A with a scale factor of 2 and then a reflection over the y-axis.

Part B

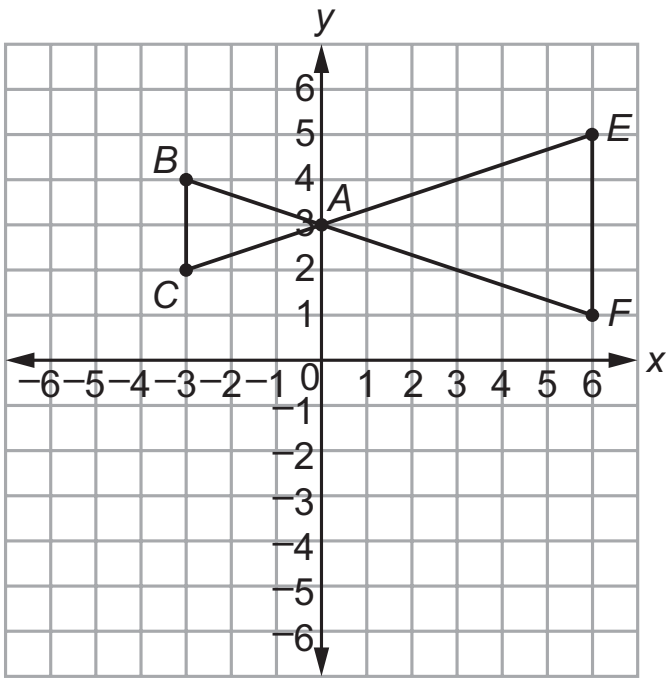
Because the triangles can be mapped onto each other that proves they are similar and the corresponding angles are equal.

The response demonstrates a complete understanding of the standard being tested. In Part A, the student correctly provides a series of transformations that will map triangle *ABC* onto triangle *AEF*. In Part B, the student correctly explains why the angles listed are congruent, although the student confuses the word equal with the word congruent.

MGSE9-12.G.SRT.5

Response Score: 2

1. Consider the two triangles shown.



Part A What transformation or series of transformations maps triangle *ABC* onto triangle *AEF*?
Type your answer in the space provided.

180° clockwise rotation about point A (0, 3). Dilate by a scale factor of 2 with the center at point A.

Part B Explain why ∠*ABC* is congruent to ∠*AEF* and why ∠*ACB* is congruent to ∠*AFE*.
Type your answer in the space provided.

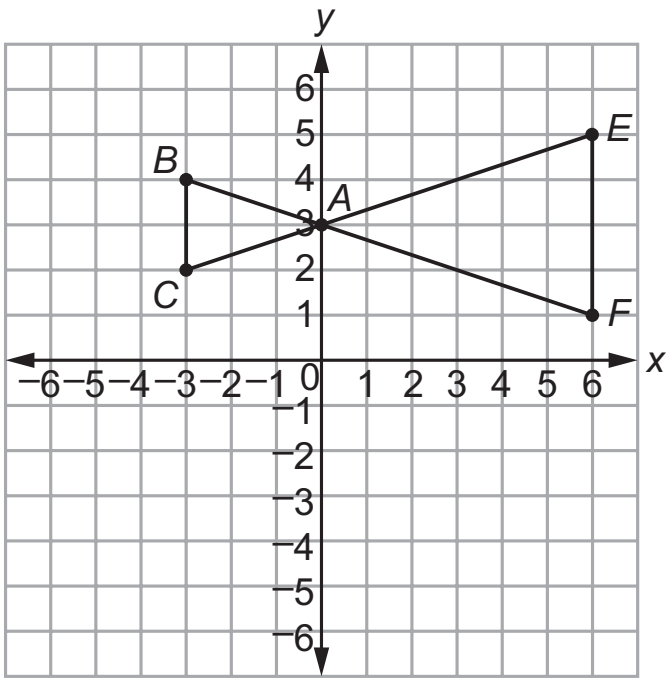
Dilating a triangle by a scale factor of 2 does not change the measurements of the angles, so ∠ABC is congruent to ∠AEF, ∠ACB is congruent to ∠AFE, as well as ∠BAC being congruent to ∠EAF.

The response demonstrates a complete understanding of the standard being tested. In Part A, the student correctly provides a series of transformations that will map triangle *ABC* onto triangle *AEF*. In Part B, the student correctly explains why the angles listed are congruent.

MGSE9-12.G.SRT.5

Response Score: 1

1. Consider the two triangles shown.



Part A What transformation or series of transformations maps triangle *ABC* onto triangle *AEF*?
Type your answer in the space provided.

reflect triangle ABC over the y-axis and then have a dilation with the center at point A and a scale factor times 2

Part B Explain why $\angle ABC$ is congruent to $\angle AEF$ and why $\angle ACB$ is congruent to $\angle AFE$.
Type your answer in the space provided.

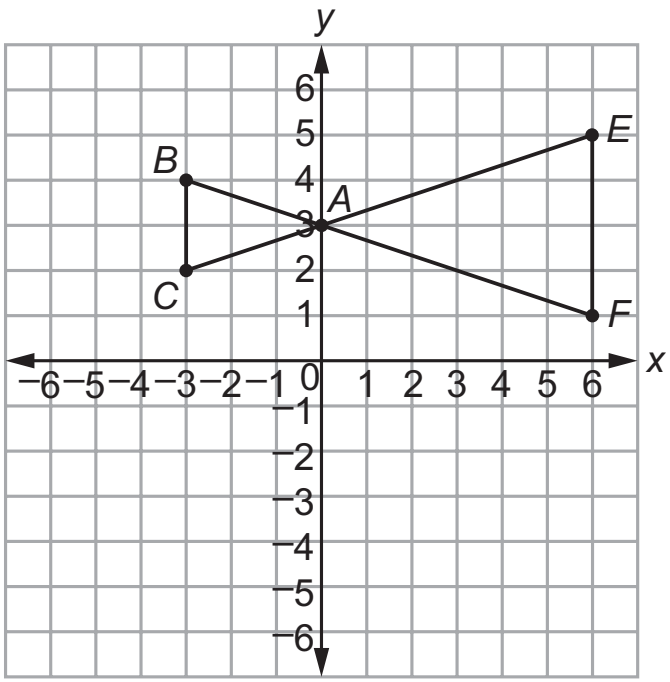
It looks the same.

The response demonstrates a partial understanding of the standard being tested. In Part A, the student correctly provides a series of transformations that will map triangle *ABC* onto triangle *AEF*. In Part B, the student incorrectly explains the reason why the angles given are congruent: "It looks the same." The response does not demonstrate complete understanding.

MGSE9-12.G.SRT.5

Response Score: 1

1. Consider the two triangles shown.



Part A What transformation or series of transformations maps triangle *ABC* onto triangle *AEF*?
Write your answer in the space provided on your answer document.

Part B Explain why $\angle ABC$ is congruent to $\angle AEF$ and why $\angle ACB$ is congruent to $\angle AFE$.
Write your answer in the space provided on your answer document.

Part A

Flip it over the y-axis

Part B

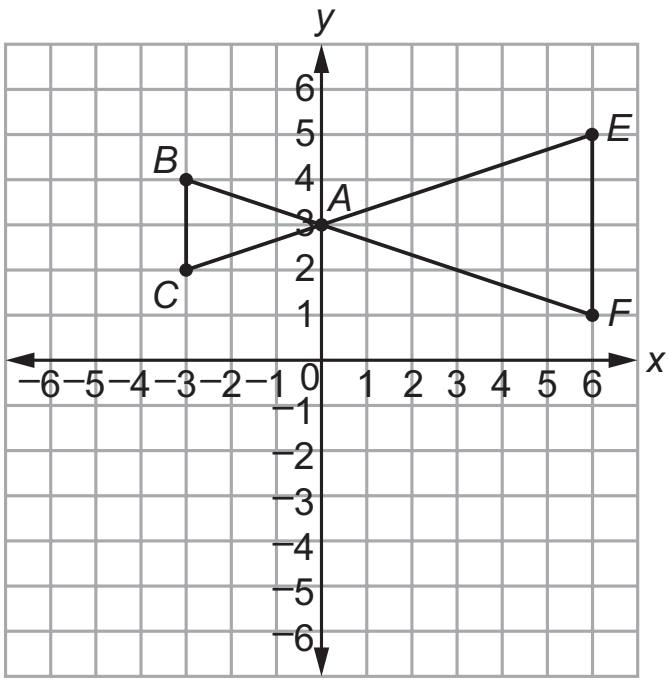
They are Congruent because the triangles have the same shape and proportions, even though they are not the same size, the angles have the same measurements

The response demonstrates a partial understanding of the standard being tested. In Part A, the student shows a single transformation, "Flip it over the *y*-axis," which is not a complete series of transformations to map triangle *ABC* onto triangle *AEF*. In Part B, the student correctly explains the congruency of the given angles.

MGSE9-12.G.SRT.5

Response Score: 0

1. Consider the two triangles shown.



Part A What transformation or series of transformations maps triangle *ABC* onto triangle *AEF*?
Type your answer in the space provided.

reflect over the y-axis

Part B Explain why ∠*ABC* is congruent to ∠*AEF* and why ∠*ACB* is congruent to ∠*AFE*.
Type your answer in the space provided.

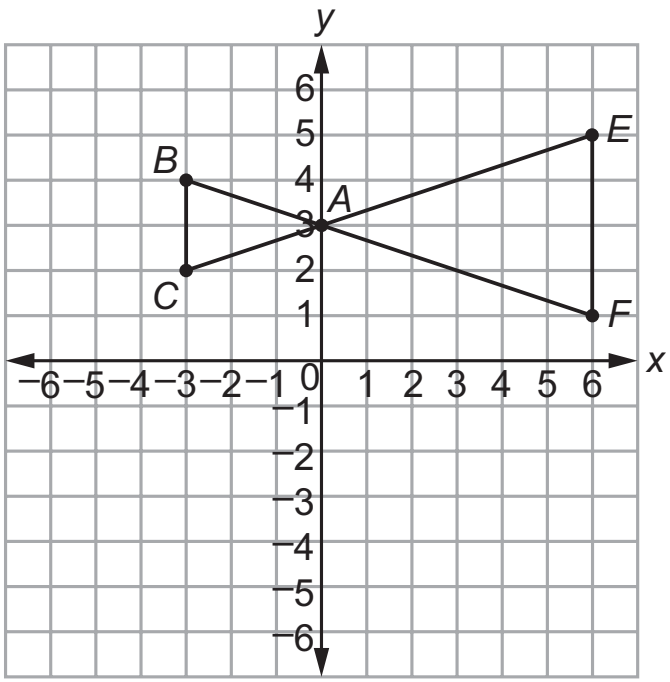
They aren't congruent. Its two different triangles, one is bigger than the other one.

The response demonstrates little to no understanding of the standard being tested. In Part A, the student shows a single transformation, "reflect over the *y*-axis," which will not map triangle *ABC* onto triangle *AEF*, though it is a step in the correct series of transformations. In Part B, the student states that "They aren't congruent," which is an incorrect response. Although it is a true statement that "one is bigger than the other," the conclusion that the angles are not congruent is incorrect.

MGSE9-12.G.SRT.5

Response Score: 0

1. Consider the two triangles shown.



Part A What transformation or series of transformations maps triangle *ABC* onto triangle *AEF*?
Write your answer in the space provided on your answer document.

Part B Explain why $\angle ABC$ is congruent to $\angle AEF$ and why $\angle ACB$ is congruent to $\angle AFE$.
Write your answer in the space provided on your answer document.

Part A

rotate 90°

Part B

They are congruent because ∠A=∠A, ∠B=∠E and ∠C=∠F

The response demonstrates little to no understanding of the standard being tested. In Part A, the student shows an incorrect degree for rotation and is missing the dilation scale factor entirely. In Part B, the student confuses equal with congruent and does not give a valid reason for congruency.

ITEM 2: EXTENDED CONSTRUCTED-RESPONSE

MGSE9-12.F.IF.4

2. Lara owns a company that makes and sells solar powered robots. She has created a new robot and needs to calculate the price to sell the new robot to earn the maximum profit. If she prices the robot too low, she will sell more but earn less profit. If she prices the robot too high, she will sell fewer and earn less profit. To determine the selling price for the maximum profit, Lara uses this equation, where P is the total profit and x is the selling price.

$$P = -50x^2 + 2{,}500x - 20{,}000$$

Part A If the selling price of the new robot is $5, what would be the total profit? **Type your answer in the space provided.**

Part B At what TWO selling prices would Lara have a profit of $0? Show your work or explain how you found your answer. **Type your answer in the space provided.**

Part C At what price should Lara sell the new robot to earn the maximum profit? **Type your answer in the space provided.**

Scoring Guide

Item 2 Information

Standard: MGSE9-12.F.IF.4 Using tables, graphs, and verbal descriptions, interpret the key characteristics of a function which models the relationship between two quantities. Sketch a graph showing key features including: intercepts; interval where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; and end behavior.	**Item Depth of Knowledge:** 3 Strategic Thinking Student uses reasoning and develops a plan or sequence of steps; process has some complexity.

ITEM-SPECIFIC SCORING RUBRIC

Score	Rationale
4	Response demonstrates a complete understanding of the standard. Give 4 points for correctly identifying the profit when the selling price is $5 in Part A, correctly identifying the two prices that will result in $0 profit in Part B and explaining how those values were determined, and correctly identifying the price that maximizes profit in Part C. Exemplar Response: Part A: -8,750 (*1 point*) Part B: 10 and 40 (*1 point*) **AND** I factored the equation into -50(x-40)(x-10). Then I set each binomial equal to zero and solved for x. (*1 point*) **OR** Other valid explanation Part C: $25 (*1 point*) **OR** Other valid response
3	Response demonstrates nearly complete understanding of the standard. Student earns 3 points for answering 3 key elements.*
2	Response demonstrates partial understanding of the standard. Student earns 2 points for answering 2 key elements.*
1	Response demonstrates minimal understanding of the standard. Student earns 1 point for answering 1 key element.*
0	Response demonstrates limited to no understanding of the standard. Student earns 0 points because the student does not show understanding of interpreting key characteristics of a function which models the relationship between two quantities.

**If a student makes an error in one part that is carried through to subsequent parts, then the student is not penalized again for the same error.*

STUDENT RESPONSES

MGSE9-12.F.IF.4

Response Score: 4

2. Lara owns a company that makes and sells solar powered robots. She has created a new robot and needs to calculate the price to sell the new robot to earn the maximum profit. If she prices the robot too low, she will sell more but earn less profit. If she prices the robot too high, she will sell fewer and earn less profit. To determine the selling price for the maximum profit, Lara uses this equation, where P is the total profit and x is the selling price.

$$P = -50x^2 + 2{,}500x - 20{,}000$$

Part A If the selling price of the new robot is $5, what would be the total profit? **Type your answer in the space provided.**

she would lose $8,750

Part B At what TWO selling prices would Lara have a profit of $0? Show your work or explain how you found your answer. **Type your answer in the space provided.**

10 and 40, I factored and set -50x+2000 and x-10 equal to zero

Part C At what price should Lara sell the new robot to earn the maximum profit? **Type your answer in the space provided.**

She will make the most money if she charges $25 for each robot.

The response demonstrates a complete understanding of the standard being tested. In Part A, the student correctly provides the total profit, which is actually a loss of $8,740. In Part B, the student correctly determines the two prices that would result in $0 profit and shows sufficient work to justify those amounts. In Part C, the student correctly states the price that earns the maximum profit.

MGSE9-12.F.IF.4

Response Score: 4

2. Lara owns a company that makes and sells solar powered robots. She has created a new robot and needs to calculate the price to sell the new robot to earn the maximum profit. If she prices the robot too low, she will sell more but earn less profit. If she prices the robot too high, she will sell fewer and earn less profit. To determine the selling price for the maximum profit, Lara uses this equation, where P is the total profit and x is the selling price.

$$P = -50x^2 + 2{,}500x - 20{,}000$$

Part A If the selling price of the new robot is $5, what would be the total profit? **Write your answer in the space provided on your answer document.**

Part B At what TWO selling prices would Lara have a profit of $0? Show your work or explain how you found your answer. **Write your answer in the space provided on your answer document.**

Part C At what price should Lara sell the new robot to earn the maximum profit? **Write your answer in the space provided on your answer document.**

Part A Lose $8,750

Part B To find the values of x where P=0, I set $0 = -50x^2 - 2500x - 20000$ and the used the quadratic formula to find x=10 and x=40

Part C $\frac{-b}{2a} = \frac{50}{2} = 25$ $25

The response demonstrates a complete understanding of the standard being tested. In Part A, the student correctly provides the total profit, which is actually a loss of $8,740. In Part B, the student correctly determines the two prices that would result in $0 profit and explains sufficiently how those amounts are found. In Part C, the student correctly states the price that earns the maximum profit.

MGSE9-12.F.IF.4

Response Score: 3

2. Lara owns a company that makes and sells solar powered robots. She has created a new robot and needs to calculate the price to sell the new robot to earn the maximum profit. If she prices the robot too low, she will sell more but earn less profit. If she prices the robot too high, she will sell fewer and earn less profit. To determine the selling price for the maximum profit, Lara uses this equation, where P is the total profit and x is the selling price.

$$P = -50x^2 + 2{,}500x - 20{,}000$$

Part A If the selling price of the new robot is $5, what would be the total profit? **Write your answer in the space provided on your answer document.**

Part B At what TWO selling prices would Lara have a profit of $0? Show your work or explain how you found your answer. **Write your answer in the space provided on your answer document.**

Part C At what price should Lara sell the new robot to earn the maximum profit? **Write your answer in the space provided on your answer document.**

Part A −8750 so she loses money

Part B set the equation =0 to get 10 and 40

Part C $-b/2a = 25$

The response demonstrates a nearly complete understanding of the standard being tested. In Part A, the student correctly provides the total profit "-8750." In Part B, the student correctly identifies the two prices that would give a profit of $0; however, the explanation given is insufficient. In Part C, the student correctly determines the price that earns the maximum profit.

MGSE9-12.F.IF.4

Response Score: 3

2. Lara owns a company that makes and sells solar powered robots. She has created a new robot and needs to calculate the price to sell the new robot to earn the maximum profit. If she prices the robot too low, she will sell more but earn less profit. If she prices the robot too high, she will sell fewer and earn less profit. To determine the selling price for the maximum profit, Lara uses this equation, where P is the total profit and x is the selling price.

$$P = -50x^2 + 2{,}500x - 20{,}000$$

Part A If the selling price of the new robot is $5, what would be the total profit? **Type your answer in the space provided.**

-8750

Part B At what TWO selling prices would Lara have a profit of $0? Show your work or explain how you found your answer. **Type your answer in the space provided.**

10 and 40, I found them by graphing the equation and finding the points on the graph where it crossed the x-axis.

Part C At what price should Lara sell the new robot to earn the maximum profit? **Type your answer in the space provided.**

She should charge $50

The response demonstrates a nearly complete understanding of the standard being tested. In Part A, the student correctly provides the total profit. In Part B, the student correctly identifies the two prices at which the profit would be $0 and sufficiently explains a method for finding those answers. In Part C, the student gives the answer "$50"; however, the correct response is $25.

MGSE9-12.F.IF.4

Response Score: 2

2. Lara owns a company that makes and sells solar powered robots. She has created a new robot and needs to calculate the price to sell the new robot to earn the maximum profit. If she prices the robot too low, she will sell more but earn less profit. If she prices the robot too high, she will sell fewer and earn less profit. To determine the selling price for the maximum profit, Lara uses this equation, where P is the total profit and x is the selling price.

$$P = -50x^2 + 2{,}500x - 20{,}000$$

Part A If the selling price of the new robot is $5, what would be the total profit? **Type your answer in the space provided.**

-8,750 is the profit.

Part B At what TWO selling prices would Lara have a profit of $0? Show your work or explain how you found your answer. **Type your answer in the space provided.**

20,000/50 = 400 and 2500/50 = 50, so $400 and $50 will be the prices.

Part C At what price should Lara sell the new robot to earn the maximum profit? **Type your answer in the space provided.**

She should charge $25

The response demonstrates a partial understanding of the standard being tested. In Part A, the student correctly provides the total profit. In Part B, the student states two incorrect prices and an incorrect method for determining the two selling prices at which the profit is $0. In Part C, the student correctly determines the price that earns the maximum profit.

MGSE9-12.F.IF.4

Response Score: 2

2. Lara owns a company that makes and sells solar powered robots. She has created a new robot and needs to calculate the price to sell the new robot to earn the maximum profit. If she prices the robot too low, she will sell more but earn less profit. If she prices the robot too high, she will sell fewer and earn less profit. To determine the selling price for the maximum profit, Lara uses this equation, where P is the total profit and x is the selling price.

$$P = -50x^2 + 2{,}500x - 20{,}000$$

Part A If the selling price of the new robot is $5, what would be the total profit? **Write your answer in the space provided on your answer document.**

Part B At what TWO selling prices would Lara have a profit of $0? Show your work or explain how you found your answer. **Write your answer in the space provided on your answer document.**

Part C At what price should Lara sell the new robot to earn the maximum profit? **Write your answer in the space provided on your answer document.**

Part A profit of $8,750

Part B

$0 = -50x^2 + 2500x - 20000$

factor out -50 → $0 = x^2 - 50x + 400$

$0 = (x - 10)(x - 40)$

$x = 10$ or $x = 40$

Part C $40

The response demonstrates a partial understanding of the standard being tested. In Part A, the student provides a "profit of $8,750," but the profit is actually a negative number and therefore a loss. In Part B, the student correctly determines the two prices at which the profit will be $0 and shows adequate work to explain the answers. In Part C, the student provides an incorrect price for the maximum profit.

MGSE9-12.F.IF.4

Response Score: 1

2. Lara owns a company that makes and sells solar powered robots. She has created a new robot and needs to calculate the price to sell the new robot to earn the maximum profit. If she prices the robot too low, she will sell more but earn less profit. If she prices the robot too high, she will sell fewer and earn less profit. To determine the selling price for the maximum profit, Lara uses this equation, where P is the total profit and x is the selling price.

$$P = -50x^2 + 2{,}500x - 20{,}000$$

Part A If the selling price of the new robot is $5, what would be the total profit? **Write your answer in the space provided on your answer document.**

Part B At what TWO selling prices would Lara have a profit of $0? Show your work or explain how you found your answer. **Write your answer in the space provided on your answer document.**

Part C At what price should Lara sell the new robot to earn the maximum profit? **Write your answer in the space provided on your answer document.**

Part A It is a negative number

Part B set the equation equal to Zero and solve

Part C -2500 over 2(-50) is 25.

The response demonstrates a minimal understanding of the standard being tested. In Part A, the student states, "It is a negative number," which is technically correct but does not give the complete answer. In Part B, the student does not provide two prices for the answer and therefore does not demonstrate sufficient understanding. In Part C, the student correctly identifies the price "25" that earns the maximum profit.

MGSE9-12.F.IF.4

Response Score: 1

2. Lara owns a company that makes and sells solar powered robots. She has created a new robot and needs to calculate the price to sell the new robot to earn the maximum profit. If she prices the robot too low, she will sell more but earn less profit. If she prices the robot too high, she will sell fewer and earn less profit. To determine the selling price for the maximum profit, Lara uses this equation, where P is the total profit and x is the selling price.

$$P = -50x^2 + 2{,}500x - 20{,}000$$

Part A If the selling price of the new robot is $5, what would be the total profit? **Type your answer in the space provided.**

-$8750

Part B At what TWO selling prices would Lara have a profit of $0? Show your work or explain how you found your answer. **Type your answer in the space provided.**

find the x intercepts

Part C At what price should Lara sell the new robot to earn the maximum profit? **Type your answer in the space provided.**

$100

The response demonstrates a minimal understanding of the standard being tested. In Part A, the student correctly provides the total profit. In Part B, the student does not provide two prices, and the explanation does not show understanding. In Part C, the student provides an incorrect price for the maximum profit.

MGSE9-12.F.IF.4

Response Score: 0

2. Lara owns a company that makes and sells solar powered robots. She has created a new robot and needs to calculate the price to sell the new robot to earn the maximum profit. If she prices the robot too low, she will sell more but earn less profit. If she prices the robot too high, she will sell fewer and earn less profit. To determine the selling price for the maximum profit, Lara uses this equation, where P is the total profit and x is the selling price.

$$P = -50x^2 + 2{,}500x - 20{,}000$$

Part A If the selling price of the new robot is $5, what would be the total profit? **Type your answer in the space provided.**

you can plug in 5 for P but I don't know how to solve it.

Part B At what TWO selling prices would Lara have a profit of $0? Show your work or explain how you found your answer. **Type your answer in the space provided.**

If she charges zero dollars she won't make any profit

Part C At what price should Lara sell the new robot to earn the maximum profit? **Type your answer in the space provided.**

She can charge as much as she wants.

The response demonstrates little to no understanding of the standard being tested. In Part A, the student incorrectly substitutes the price of $5 in for the variable P, which represents the profit, not the price. In Part B, the student gives one incorrect price and does not use the function given to determine the two prices at which the profit is $0. In Part C, the student does not give a price for the maximum profit.

MGSE9-12.F.IF.4

Response Score: 0

2. Lara owns a company that makes and sells solar powered robots. She has created a new robot and needs to calculate the price to sell the new robot to earn the maximum profit. If she prices the robot too low, she will sell more but earn less profit. If she prices the robot too high, she will sell fewer and earn less profit. To determine the selling price for the maximum profit, Lara uses this equation, where P is the total profit and x is the selling price.

$$P = -50x^2 + 2{,}500x - 20{,}000$$

Part A If the selling price of the new robot is $5, what would be the total profit? **Write your answer in the space provided on your answer document.**

Part B At what TWO selling prices would Lara have a profit of $0? Show your work or explain how you found your answer. **Write your answer in the space provided on your answer document.**

Part C At what price should Lara sell the new robot to earn the maximum profit? **Write your answer in the space provided on your answer document.**

Part A $P = -50(5)^2 + 2500(5) - 20000$
$= -250 + 12500 - 20000 = -7750$

Part B 50 and 2500, its the first two numbers in the equation

Part C she should charge #2500

The response demonstrates little to no understanding of the standard being tested. In Part A, the student makes a computational error in the equation given and gives the incorrect total profit "–7750." In Part B, the student provides two incorrect prices and does not give a sufficient explanation for finding the two prices for the profit to be $0. In Part C, the student determines an incorrect price for the maximum profit.