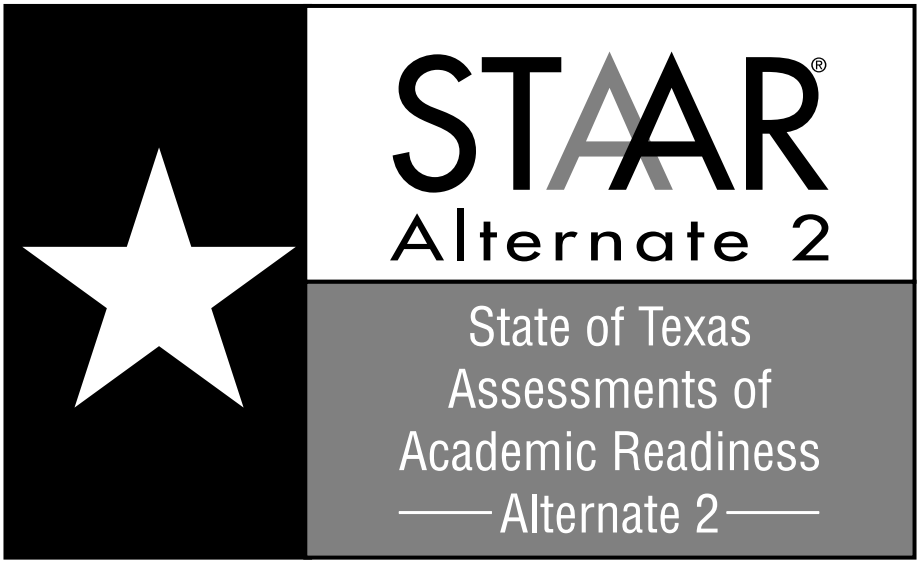


TEST ADMINISTRATOR MANUAL

Algebra I

STAAR Alternate 2

Administered April 2019

RELEASED

Texas Essential Knowledge and Skills (TEKS) Curriculum Assessed

Algebra I	**Cluster 1**
Reporting Category 1	Number and Algebraic Methods: The student will demonstrate an understanding of how to use algebraic methods to manipulate numbers, expressions, and equations.
Knowledge and Skills Statement A.11	The student applies the mathematical process standards and algebraic methods to rewrite algebraic expressions into equivalent forms.
Essence Statement	Simplifies expressions.
Item 1 Prerequisite Skill	Use standard, word, and expanded forms to represent numbers up to 1,200 (2)
Item 2 Prerequisite Skill	Compose and decompose numbers up to 100,000 as a sum of so many ten thousands, so many thousands, so many hundreds, so many tens, and so many ones using objects, pictorial models, and numbers, including expanded notation as appropriate (3)
Item 3 Prerequisite Skill	Simplify numerical expressions that do not involve exponents, including up to two levels of grouping (5)
Item 4 Prerequisite Skill	Generate equivalent numerical expressions using order of operations, including whole number exponents and prime factorization (6)

Algebra I	**Cluster 2**
Reporting Category 3	Writing and Solving Linear Functions, Equations, and Inequalities: The student will demonstrate an understanding of how to write and solve linear functions, equations, and inequalities.
Knowledge and Skills Statement A.2	The student applies the mathematical process standards when using properties of linear functions to write and represent in multiple ways, with and without technology, linear equations, inequalities, and systems of equations.
Essence Statement	Determines different forms of linear equations using attributes or representations.
Item 5 Prerequisite Skill	Represent word problems involving addition and subtraction of whole numbers up to 20 using concrete and pictorial models and number sentences (1)
Item 6 Prerequisite Skill	Represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations (3)
Item 7 Prerequisite Skill	Represent multi-step problems involving the four operations with whole numbers using strip diagrams and equations with a letter standing for the unknown quantity (4)
Item 8 Prerequisite Skill	Represent mathematical and real-world problems involving ratios and rates using scale factors, tables, graphs, and proportions (6)

Algebra I	Cluster 3
Reporting Category 5	Exponential Functions and Equations: The student will demonstrate an understanding of how to describe and write exponential functions and equations.
Knowledge and Skills Statement A.9	The student applies the mathematical process standards when using properties of exponential functions and their related transformations to write, graph, and represent in multiple ways exponential equations and evaluate, with and without technology, the reasonableness of their solutions. The student formulates statistical relationships and evaluates their reasonableness based on real-world data.
Essence Statement	Uses exponential functions to model or solve problems using real-world data.
Item 9 Prerequisite Skill	Represent problems using an input-output table and numerical expressions to generate a number pattern that follows a given rule representing the relationship of the values in the resulting sequence and their position in the sequence (4)
Item 10 Prerequisite Skill	Represent problems using an input-output table and numerical expressions to generate a number pattern that follows a given rule representing the relationship of the values in the resulting sequence and their position in the sequence (4)
Item 11 Prerequisite Skill	Represent and solve multi-step problems involving the four operations with whole numbers using equations with a letter standing for the unknown quantity (5)
Item 12 Prerequisite Skill	Solve one- and two-step problems using data from a frequency table, dot plot, bar graph, stem-and-leaf plot, or scatterplot (5)

Algebra I	Cluster 4
Reporting Category 2	Describing and Graphing Linear Functions, Equation, and Inequalities: The student will demonstrate an understanding of how to describe and graph linear functions, equations, and inequalities.
Knowledge and Skills Statement A.3	The student applies the mathematical process standards when using graphs of linear functions, key features, and related transformations to represent in multiple ways and solve, with and without technology, equations, inequalities, and systems of equations.
Essence Statement	Determines key features or graphical solutions for linear functions.
Item 13 Prerequisite Skill	Represent real-world relationships using number pairs in a table and verbal descriptions (3)
Item 14 Prerequisite Skill	Represent real-world relationships using number pairs in a table and verbal descriptions (3)
Item 15 Prerequisite Skill	Generate a numerical pattern when given a rule in the form $y = ax$ or $y = x + a$ and graph (5)
Item 16 Prerequisite Skill	Represent mathematical and real-world problems involving ratios and rates using scale factors, tables, graphs, and proportions (6)

Algebra I	Cluster 5
Reporting Category 4	Quadratic Functions and Equations: The student will demonstrate an understanding of how to describe, write, and solve quadratic functions and equations.
Knowledge and Skills Statement A.7	The student applies the mathematical process standards when using graphs of quadratic functions and their related transformations to represent in multiple ways and determine, with and without technology, the solutions to equations.
Essence Statement	Recognizes graphs and attributes of quadratic functions.
Item 17 Prerequisite Skill	Represent the product of 2 two-digit numbers using arrays, area models, or equations, including perfect squares through 15 by 15 (4)
Item 18 Prerequisite Skill	Represent the product of 2 two-digit numbers using arrays, area models, or equations, including perfect squares through 15 by 15 (4)
Item 19 Prerequisite Skill	Generate equivalent numerical expressions using order of operations, including whole number exponents and prime factorization (6)
Item 20 Prerequisite Skill	Generate equivalent numerical expressions using order of operations, including whole number exponents and prime factorization (6)

Additional resources for STAAR Alternate 2, including the STAAR Alternate 2 Test Administrator Manual and the STAAR Alternate 2 Educator Guide, are available online: http://tea.texas.gov/student.assessment/special-ed/staaralt/

ALGEBRA I

Presentation Instructions for Question 1

- *Present* Stimulus 1. *Communicate:* **The same value can be shown in different ways.**
- *Direct* the student to each number. *Communicate:* **Five hundred plus twenty is the same value as five hundred twenty.**
- *Communicate:* **Find two ways to show five hundred twenty.**

Stimulus 1

* 500 + 20

520

Scoring Instructions		
Student Action		**Test Administrator Action**
If the student finds different ways to show 520,	➨	mark **A** for question 1 and move to question 2.
If the student does not find different ways to show 520,	➨	• remove the stimulus; • wait at least five seconds; and • replicate the initial presentation instructions.
After the five-second wait time, if the student finds different ways to show 520,	➨	mark **B** for question 1 and move to question 2.
After the five-second wait time, if the student does not find different ways to show 520,	➨	mark **C** for question 1 and move to question 2.

Presentation Instructions for Question 2

- *Present* Stimulus 2a and 2b. *Communicate:* **The same value can be shown in different ways.**
- *Direct* the student to Stimulus 2a. *Communicate:* **Five hundred plus twenty is a different way to show five hundred twenty.**
- *Direct* the student to each answer choice in Stimulus 2b.
- *Communicate:* **Find a different way to show five hundred twenty.**

Stimulus 2a

500 + 20

520

Stimulus 2b

(5 × 1) + (2 × 1)

* (5 × 100) + (2 × 10)

Scoring Instructions		
Student Action		**Test Administrator Action**
If the student finds "(5 × 100) + (2 × 10)" in Stimulus 2b,	➨	mark **A** for question 2 and move to question 3.
If the student does not find "(5 × 100) + (2 × 10)" in Stimulus 2b,	➨	• model the desired student action by finding "(5 × 100) + (2 × 10)" in Stimulus 2b and *communicate* **"This is a different way to show five hundred twenty"**; and • replicate the initial presentation instructions.
After teacher modeling, if the student finds "(5 × 100) + (2 × 10)" in Stimulus 2b,	➨	mark **B** for question 2 and move to question 3.
After teacher modeling, if the student does not find "(5 × 100) + (2 × 10)" in Stimulus 2b,	➨	mark **C** for question 2 and move to question 3.

Presentation Instructions for Question 3

- *Present* Stimulus 3a and 3b. *Communicate:* **The same value can be shown in different ways.**
- *Direct* the student to Stimulus 3a. *Communicate:* **The expression two plus seven times ten can be shown in a different way.**
- *Direct* the student to each answer choice in Stimulus 3b.
- *Communicate:* **Find a different way to show two plus seven times ten.**

Stimulus 3a

$$(2 + 7) \times 10$$

Stimulus 3b

9 + 10	2 × 70	* 9 × 10

Scoring Instructions		
Student Action		**Test Administrator Action**
If the student finds "9 × 10" in Stimulus 3b,	➨	mark **A** for question 3 and move to question 4.
If the student does not find "9 × 10" in Stimulus 3b,	➨	provide ***one*** of these allowable teacher assists to the student: • Highlight the operation symbols in Stimulus 3a. **OR** • Allow the student to use a calculator or multiplication chart. **OR** • Have the student tell what to do first. Replicate the initial presentation instructions.
After the selected teacher assistance, if the student finds "9 × 10" in Stimulus 3b,	➨	mark **B** for question 3 and move to question 4.
After the selected teacher assistance, if the student does not find "9 × 10" in Stimulus 3b,	➨	mark **C** for question 3 and move to question 4.

Presentation Instructions for Question 4

- *Present* Stimulus 4a and 4b. *Communicate:* **The same value can be shown in different ways.**
- *Direct* the student to each bullet in Stimulus 4a. *Communicate* the text in Stimulus 4a.
- *Direct* the student to the expression in Stimulus 4a. *Communicate:* **This expression represents how many books each boy and girl will get. This expression can be shown in a different way.**
- *Direct* the student to each answer choice in Stimulus 4b.
- *Communicate:* **Find a different way to show this expression.**

Stimulus 4a

- There are 6 boys and 2 girls in the library.
- There are 24 books for the boys and girls to read.

- Each boy and girl will get the same number of books.

$24 \div (6 + 2)$

Stimulus 4b

* $24 \div 8$

$4 + 2$

$4 \div 8$

Scoring Instructions		
Student Action		**Test Administrator Action**
If the student finds "24 ÷ 8" in Stimulus 4b,	➨	mark **A** for question 4 and move to question 5.
If the student does not find "24 ÷ 8" in Stimulus 4b,	➨	replicate the initial presentation instructions.
After the teacher repeats the instructions, if the student finds "24 ÷ 8" in Stimulus 4b,	➨	mark **B** for question 4 and move to question 5.
After the teacher repeats the instructions, if the student does not find "24 ÷ 8" in Stimulus 4b,	➨	mark **C** for question 4 and move to question 5.

Presentation Instructions for Question 5

- *Present* Stimulus 5.
- *Direct* the student to the answer choice on the left. *Communicate:* **In a basketball game, Sam scored 16 points and David scored 12 points. Sam scored four more points than David. Here is the equation 16 minus 12 equals 4.**
- *Direct* the student to the answer choice on the right. *Communicate:* **Sam scored 16 points, and David scored 12 points. Together they scored a total of 28 points. Here is the equation 16 plus 12 equals 28.**
- *Communicate:* **Find the equation 16 minus 12 equals 4.**

Stimulus 5

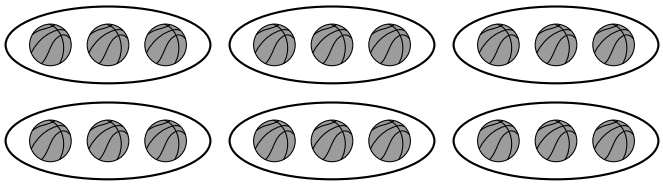
* 16 - 12 = 4 | 16 + 12 = 28

Scoring Instructions		
Student Action		**Test Administrator Action**
If the student finds "16 – 12 = 4,"	➨	mark **A** for question 5 and move to question 6.
If the student does not find "16 – 12 = 4,"	➨	• remove the stimulus; • wait at least five seconds; and • replicate the initial presentation instructions.
After the five-second wait time, if the student finds "16 – 12 = 4,"	➨	mark **B** for question 5 and move to question 6.
After the five-second wait time, if the student does not find "16 – 12 = 4,"	➨	mark **C** for question 5 and move to question 6.

Presentation Instructions for Question 6

- *Present* Stimulus 6a and 6b.
- *Direct* the student to the model in Stimulus 6a. *Communicate:* **This model shows 18 basketballs. A coach gave the basketballs to six teams. Each team got three basketballs.**
- *Direct* the student to each answer choice in Stimulus 6b.
- *Communicate:* **Find the equation that matches the model.**

Stimulus 6a



Stimulus 6b

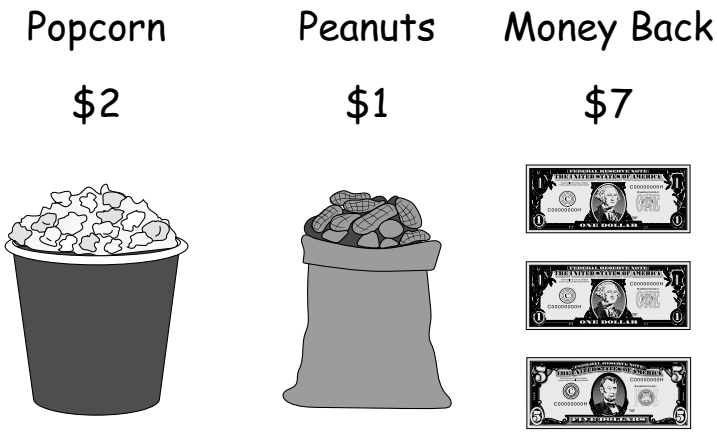
18 + 6 = 24	* 18 ÷ 6 = 3

Scoring Instructions		
Student Action		**Test Administrator Action**
If the student finds "18 ÷ 6 = 3" in Stimulus 6b,	➨	mark **A** for question 6 and move to question 7.
If the student does not find "18 ÷ 6 = 3" in Stimulus 6b,	➨	• model the desired student action by finding "18 ÷ 6 = 3" in Stimulus 6b and *communicate* **"Eighteen divided by six equals three is the equation that matches the model"**; and • replicate the initial presentation instructions.
After teacher modeling, if the student finds "18 ÷ 6 = 3" in Stimulus 6b,	➨	mark **B** for question 6 and move to question 7.
After teacher modeling, if the student does not find "18 ÷ 6 = 3" in Stimulus 6b,	➨	mark **C** for question 6 and move to question 7.

Presentation Instructions for Question 7

- *Present* Stimulus 7a and 7b.
- *Direct* the student to each part of Stimulus 7a. *Communicate:* **At a basketball game, a student bought a tub of popcorn for two dollars and a bag of peanuts for one dollar. The student gave some money to the cashier. The student got seven dollars back.**
- *Direct* the student to each answer choice in Stimulus 7b. *Communicate:* **The amount of money the student gave to the cashier is missing.**
- *Communicate:* **Find the equation that shows how to find the amount of money the student gave to the cashier.**

Stimulus 7a



Stimulus 7b

$2 - $1 + $7 = ☐

* $2 + $1 + $7 = ☐

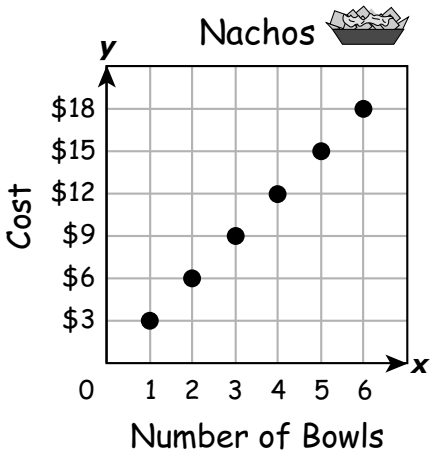
$2 + $1 - $7 = ☐

Scoring Instructions		
Student Action		**Test Administrator Action**
If the student finds "$2 + $1 + $7 = ☐" in Stimulus 7b,	➨	mark **A** for question 7 and move to question 8.
If the student does not find "$2 + $1 + $7 = ☐" in Stimulus 7b,	➨	provide ***one*** of these allowable teacher assists to the student: • Highlight the operation symbols in each answer choice. **OR** • Have the student tell or show how to find the amount of money spent on popcorn and peanuts. **OR** • Have the student use manipulatives to demonstrate the scenario. **OR** • Allow the student to use a calculator. Replicate the initial presentation instructions.
After the selected teacher assistance, if the student finds "$2 + $1 + $7 = ☐" in Stimulus 7b,	➨	mark **B** for question 7 and move to question 8.
After the selected teacher assistance, if the student does not find "$2 + $1 + $7 = ☐" in Stimulus 7b,	➨	mark **C** for question 7 and move to question 8.

Presentation Instructions for Question 8

- *Present* Stimulus 8a and 8b.
- *Direct* the student to Stimulus 8a. *Communicate:* **The graph shows the cost of nachos at a basketball game. The *x*-axis shows the number of bowls of nachos. The *y*-axis shows the cost, in dollars, of the nachos.**
- *Direct* the student to each answer choice in Stimulus 8b.
- *Communicate:* **Find the cost of five bowls of nachos.**

Stimulus 8a



Stimulus 8b

$12	$18	* $15

Scoring Instructions		
Student Action		**Test Administrator Action**
If the student finds "$15" in Stimulus 8b,	➨	mark **A** for question 8 and move to question 9.
If the student does not find "$15" in Stimulus 8b,	➨	replicate the initial presentation instructions.
After the teacher repeats the instructions, if the student finds "$15" in Stimulus 8b,	➨	mark **B** for question 8 and move to question 9.
After the teacher repeats the instructions, if the student does not find "$15" in Stimulus 8b,	➨	mark **C** for question 8 and move to question 9.

Presentation Instructions for Question 9

- *Present* Stimulus 9.
- *Direct* the student to the table. *Communicate:* **This table shows factors and solutions.**
- *Direct* the student to the "Factors" column. *Communicate:* **The factor eight is multiplied one more time in each row.**
- *Communicate:* **Find the part of the table that shows the factor eight multiplied two times.**

Stimulus 9

Factors	Solution
$8^1 = 8$	8
*$8^2 = 8 \times 8$	64
$8^3 = 8 \times 8 \times 8$	512

Scoring Instructions		
Student Action		**Test Administrator Action**
If the student finds the part of the table with "$8^2 = 8 \times 8$,"	➨	mark **A** for question 9 and move to question 10.
If the student does not find the part of the table with "$8^2 = 8 \times 8$,"	➨	• remove the stimulus; • wait at least five seconds; and • replicate the initial presentation instructions.
After the five-second wait time, if the student finds the part of the table with "$8^2 = 8 \times 8$,"	➨	mark **B** for question 9 and move to question 10.
After the five-second wait time, if the student does not find the part of the table with "$8^2 = 8 \times 8$,"	➨	mark **C** for question 9 and move to question 10.

Presentation Instructions for Question 10

- *Present* Stimulus 10a and 10b.
- *Direct* the student to Stimulus 10a. *Communicate:* **This table shows factors and solutions. The factor eight is multiplied one more time in each row.**
- *Direct* the student to each answer choice in Stimulus 10b. *Communicate* the text in each answer choice.
- *Communicate:* **Find the table that shows a different factor multiplied one more time in each row.**

Stimulus 10a

Factors	Solution
$8^1 = 8$	8
$8^2 = 8 \times 8$	64
$8^3 = 8 \times 8 \times 8$	512

Stimulus 10b

*

Factors	Solution
$3^1 = 3$	3
$3^2 = 3 \times 3$	9
$3^3 = 3 \times 3 \times 3$	27

Factors	Solution
$3^1 = 3 \times 1$	3
$3^2 = 3 \times 2$	6
$3^3 = 3 \times 3$	9

Scoring Instructions		
Student Action		**Test Administrator Action**
If the student finds the table with "Solution: 3, 9, 27" in Stimulus 10b,	➨	mark **A** for question 10 and move to question 11.
If the student does not find the table with "Solution: 3, 9, 27" in Stimulus 10b,	➨	• model the desired student action by finding the table with "Solution: 3, 9, 27" in Stimulus 10b and *communicate* **"This table shows a factor multiplied one more time in each row"**; and • replicate the initial presentation instructions.
After teacher modeling, if the student finds the table with "Solution: 3, 9, 27" in Stimulus 10b,	➨	mark **B** for question 10 and move to question 11.
After teacher modeling, if the student does not find the table with "Solution: 3, 9, 27" in Stimulus 10b,	➨	mark **C** for question 10 and move to question 11.

Presentation Instructions for Question 11

- *Present* Stimulus 11a and 11b.
- *Direct* the student to each column in Stimulus 11a. *Communicate:* **This table shows a pattern with factors and solutions.**
- *Direct* the student to the empty box in the "Factors" column in Stimulus 11a. *Communicate:* **The factors that go in the box are missing.**
- *Direct* the student to each answer choice in Stimulus 11b.
- *Communicate:* **Find the factors that go in the box.**

Stimulus 11a

Factors	Solution
$4^1 = 4$	4
$4^2 =$ ☐	16
$4^3 = 4 \times 4 \times 4$	64
$4^4 = 4 \times 4 \times 4 \times 4$	256

Stimulus 11b

2×2

4×2

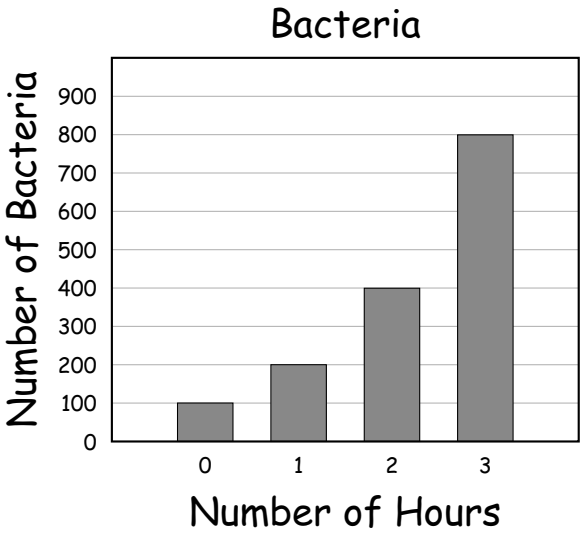
* 4×4

Scoring Instructions		
Student Action		**Test Administrator Action**
If the student finds "4 × 4" in Stimulus 11b,	➨	mark **A** for question 11 and move to question 12.
If the student does not find "4 × 4" in Stimulus 11b,	➨	provide ***one*** of these allowable teacher assists to the student: • Have the student identify the pattern in the "Factors" column in Stimulus 11a. **OR** • Highlight the fours in the "Factors" column in Stimulus 11a. **OR** • Highlight the exponents in the "Factors" column in Stimulus 11a. Replicate the initial presentation instructions.
After the selected teacher assistance, if the student finds "4 × 4" in Stimulus 11b,	➨	mark **B** for question 11 and move to question 12.
After the selected teacher assistance, if the student does not find "4 × 4" in Stimulus 11b,	➨	mark **C** for question 11 and move to question 12.

Presentation Instructions for Question 12

- *Present* Stimulus 12a and 12b.
- *Direct* the student to the bar graph in Stimulus 12a. *Communicate:* **A scientist is growing bacteria in a lab. The bar graph shows the number of bacteria that grew over three hours.**
- *Direct* the student to each bar in the graph in Stimulus 12a. *Communicate:* **The scientist started with 100 bacteria. After 1 hour, there were 200 bacteria. After 2 hours, there were 400 bacteria. After 3 hours, there were 800 bacteria.**
- *Direct* the student to each answer choice in Stimulus 12b. *Communicate* the text in the stem and each answer choice.
- *Communicate:* **Find the words that describe how the number of bacteria changed each hour.**

Stimulus 12a



Stimulus 12b

The number of bacteria —

increased by one each hour

* doubled each hour

stayed the same each hour

Scoring Instructions		
Student Action		**Test Administrator Action**
If the student finds “doubled each hour” in Stimulus 12b,	➨	mark **A** for question 12 and move to question 13.
If the student does not find “doubled each hour” in Stimulus 12b,	➨	replicate the initial presentation instructions.
After the teacher repeats the instructions, if the student finds “doubled each hour” in Stimulus 12b,	➨	mark **B** for question 12 and move to question 13.
After the teacher repeats the instructions, if the student does not find “doubled each hour” in Stimulus 12b,	➨	mark **C** for question 12 and move to question 13.

Presentation Instructions for Question 13

- *Present* Stimulus 13.
- *Direct* the student to the table. *Communicate:* **This table shows the cost of movie tickets for one ticket, two tickets, and three tickets. Movie tickets cost $7.50 each.**
- *Communicate:* **Find the table that shows that movie tickets cost $7.50 each.**

Stimulus 13

Movie Tickets 

*

Number of Tickets	Cost
1	$7.50
2	$15.00
3	$22.50

Scoring Instructions		
Student Action		**Test Administrator Action**
If the student finds the table,	➨	mark **A** for question 13 and move to question 14.
If the student does not find the table,	➨	• remove the stimulus; • wait at least five seconds; and • replicate the initial presentation instructions.
After the five-second wait time, if the student finds the table,	➨	mark **B** for question 13 and move to question 14.
After the five-second wait time, if the student does not find the table,	➨	mark **C** for question 13 and move to question 14.

Presentation Instructions for Question 14

- *Present* Stimulus 14a and 14b.
- *Direct* the student to Stimulus 14a. *Communicate:* **This table shows that movie tickets cost $7.50 each.**
- *Direct* the student to each answer choice in Stimulus 14b. *Communicate* the text in each answer choice.
- *Communicate:* **Find another table that shows that movie tickets cost $7.50 each.**

Stimulus 14a

Movie Tickets 

Number of Tickets	Cost
1	$7.50
2	$15.00
3	$22.50

Stimulus 14b

Movie Tickets 

*

Number of Tickets	Cost
1	$7.50
2	$15.00
3	$22.50

Movie Tickets 

Number of Tickets	Cost
1	$2.50
2	$5.00
3	$7.50

Scoring Instructions		
Student Action		**Test Administrator Action**
If the student finds the table with "Cost: $7.50, $15.00, $22.50" in Stimulus 14b,	➨	mark **A** for question 14 and move to question 15.
If the student does not find the table with "Cost: $7.50, $15.00, $22.50" in Stimulus 14b,	➨	• model the desired student action by finding the table with "Cost: $7.50, $15.00, $22.50" in Stimulus 14b and *communicate* **"This table shows that movie tickets cost $7.50 each"**; and • replicate the initial presentation instructions.
After teacher modeling, if the student finds the table with "Cost: $7.50, $15.00, $22.50" in Stimulus 14b,	➨	mark **B** for question 14 and move to question 15.
After teacher modeling, if the student does not find the table with "Cost: $7.50, $15.00, $22.50" in Stimulus 14b,	➨	mark **C** for question 14 and move to question 15.

Presentation Instructions for Question 15

- *Present* Stimulus 15a and 15b.
- *Direct* the student to Stimulus 15a. *Communicate:* **This table shows that movie tickets cost $7.50 each.**
- *Direct* the student to each answer choice in Stimulus 15b. *Communicate:* **Here are three graphs about movie tickets. The *x*-axis shows the number of tickets, and the *y*-axis shows the cost of the tickets.**
- *Communicate:* **Find the graph that shows that movie tickets cost $7.50 each.**

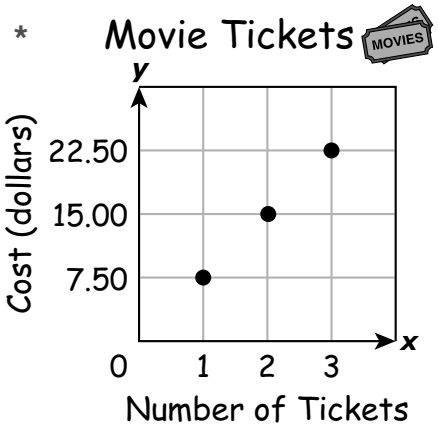
Stimulus 15a

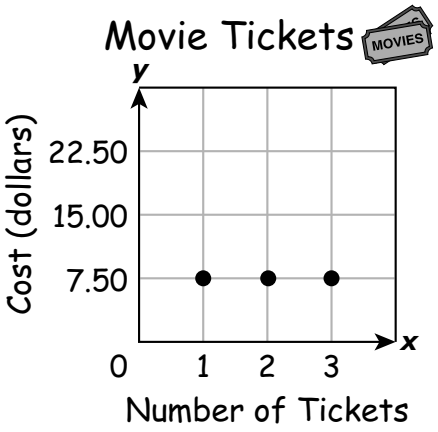
Movie Tickets

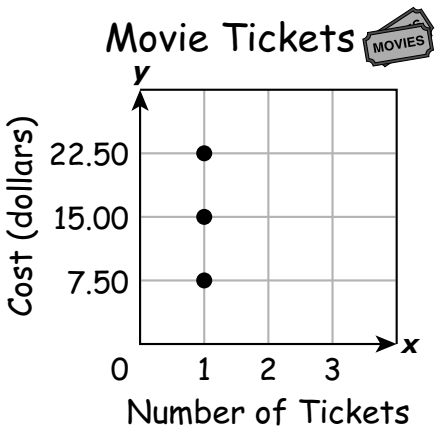
Number of Tickets	Cost
1	$7.50
2	$15.00
3	$22.50

Stimulus 15b

*





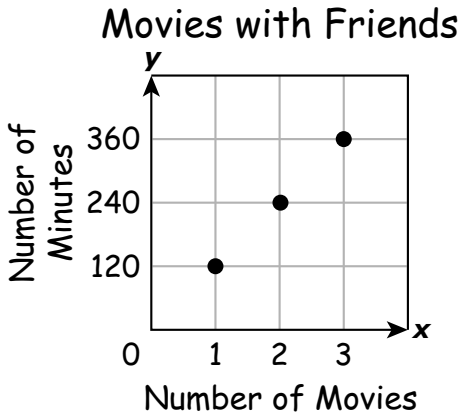


Scoring Instructions		
Student Action		**Test Administrator Action**
If the student finds the graph with points at (1, 7.50), (2, 15.00), (3, 22.50) in Stimulus 15b,	➨	mark **A** for question 15 and move to question 16.
If the student does not find the graph with points at (1, 7.50), (2, 15.00), (3, 22.50) in Stimulus 15b,	➨	provide ***one*** of these allowable teacher assists to the student: • Highlight the numbers in the "Cost" column of the table in Stimulus 15a. **OR** • Highlight the numbers on the *y*-axis of each graph in Stimulus 15b. **OR** • Have the student tell the cost of one ticket, two tickets, and three tickets from each graph. Replicate the initial presentation instructions.
After the selected teacher assistance, if the student finds the graph with points at (1, 7.50), (2, 15.00), (3, 22.50) in Stimulus 15b,	➨	mark **B** for question 15 and move to question 16.
After the selected teacher assistance, if the student does not find the graph with points at (1, 7.50), (2, 15.00), (3, 22.50) in Stimulus 15b,	➨	mark **C** for question 15 and move to question 16.

Presentation Instructions for Question 16

- *Present* Stimulus 16a and 16b.
- *Direct* the student to Stimulus 16a. *Communicate:* **Jayden watched three movies with her friends. This graph shows a relationship between the number of movies they watched and the number of minutes the movies lasted.**
- *Direct* the student to each answer choice in Stimulus 16b. *Communicate* each answer choice.
- *Communicate:* **Find the sentence that describes the number of minutes each movie lasted.**

Stimulus 16a



Stimulus 16b

Each movie lasted 360 minutes.

Each movie lasted 3 minutes.

* Each movie lasted 120 minutes.

Scoring Instructions		
Student Action		**Test Administrator Action**
If the student finds "Each movie lasted 120 minutes" in Stimulus 16b,	➨	mark **A** for question 16 and move to question 17.
If the student does not find "Each movie lasted 120 minutes" in Stimulus 16b,	➨	replicate the initial presentation instructions.
After the teacher repeats the instructions, if the student finds "Each movie lasted 120 minutes" in Stimulus 16b,	➨	mark **B** for question 16 and move to question 17.
After the teacher repeats the instructions, if the student does not find "Each movie lasted 120 minutes" in Stimulus 16b,	➨	mark **C** for question 16 and move to question 17.

Presentation Instructions for Question 17

- *Present* Stimulus 17.
- *Direct* the student to the stars. *Communicate:* **This array shows 10 stars in each row and 10 stars in each column.**
- *Direct* the student to the equations. *Communicate:* **Ten times 10 equals 100 stars. Both of the factors are 10. Another way to write 10 times 10 is 10 squared. Ten squared equals 100.**
- *Communicate:* **Find the equation 10 squared equals 100.**

Stimulus 17

Scoring Instructions		
Student Action		**Test Administrator Action**
If the student finds "$10^2 = 100$,"	➨	mark **A** for question 17 and move to question 18.
If the student does not find "$10^2 = 100$,"	➨	• remove the stimulus; • wait at least five seconds; and • replicate the initial presentation instructions.
After the five-second wait time, if the student finds "$10^2 = 100$,"	➨	mark **B** for question 17 and move to question 18.
After the five-second wait time, if the student does not find "$10^2 = 100$,"	➨	mark **C** for question 17 and move to question 18.

Presentation Instructions for Question 18

- *Present* Stimulus 18a and 18b.
- *Direct* the student to Stimulus 18a. *Communicate:* **Ten times 10 equals 100. Both of the factors are 10. Another way to write 10 times 10 is 10 squared. Ten squared equals 100.**
- *Direct* the student to each answer choice in Stimulus 18b.
- *Communicate:* **Find another equation with a factor that is squared.**

Stimulus 18a

$10 \times 10 = 100$

$10^2 = 100$

Stimulus 18b

$11 + 10 = 21$	* $11^2 = 121$

Scoring Instructions		
Student Action		**Test Administrator Action**
If the student finds "$11^2 = 121$" in Stimulus 18b,	➨	mark **A** for question 18 and move to question 19.
If the student does not find "$11^2 = 121$" in Stimulus 18b,	➨	• model the desired student action by finding "$11^2 = 121$" in Stimulus 18b and *communicate* **"This equation has a factor that is squared"**; and • replicate the initial presentation instructions.
After teacher modeling, if the student finds "$11^2 = 121$" in Stimulus 18b,	➨	mark **B** for question 18 and move to question 19.
After teacher modeling, if the student does not find "$11^2 = 121$" in Stimulus 18b,	➨	mark **C** for question 18 and move to question 19.

Presentation Instructions for Question 19

- *Present* Stimulus 19.
- *Direct* the student to each answer choice. *Communicate:* **These tables show factors and solutions. The middle column shows the process.**
- *Communicate* the text in each answer choice.
- *Communicate:* **Find the table that shows factors that are squared.**

Stimulus 19

Factor	Process	Solution
2	2 × 1	2
3	3 × 1	3
4	4 × 1	4

Factor	Process	Solution
2	2 × 2	4
3	3 × 2	6
4	4 × 2	8

*

Factor	Process	Solution
2	2^2	4
3	3^2	9
4	4^2	16

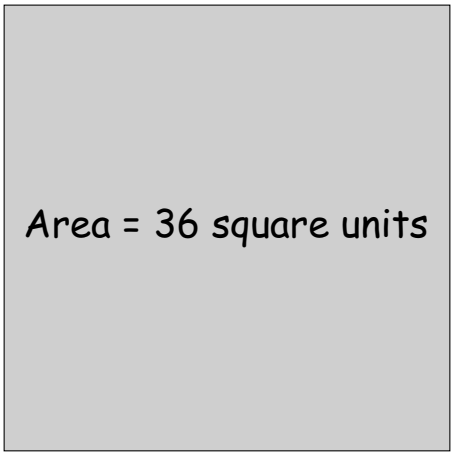
Scoring Instructions		
Student Action		**Test Administrator Action**
If the student finds the table with "Solution: 4, 9, 16,"	➨	mark **A** for question 19 and move to question 20.
If the student does not find the table with "Solution: 4, 9, 16,"	➨	provide ***one*** of these allowable teacher assists to the student: • Highlight the middle column of each table. **OR** • Allow the student to use a calculator or multiplication chart. **OR** • Have the student tell what "squared" means. Replicate the initial presentation instructions.
After the selected teacher assistance, if the student finds the table with "Solution: 4, 9, 16,"	➨	mark **B** for question 19 and move to question 20.
After the selected teacher assistance, if the student does not find the table with "Solution: 4, 9, 16,"	➨	mark **C** for question 19 and move to question 20.

Presentation Instructions for Question 20

- *Present* Stimulus 20a and 20b.
- *Direct* the student to the formula and the square in Stimulus 20a. *Communicate:* **The formula for the area of a square is side times side, or side squared. This square has an area of 36 square units.**
- *Direct* the student to each answer choice in Stimulus 20b. *Communicate* each answer choice.
- *Communicate:* **Find the equation that represents the area of the square.**

Stimulus 20a

Side × side = side^2 = area of a square



Stimulus 20b

18 × 2 = 18^2 = 36 square units

* 6 × 6 = 6^2 = 36 square units

9 + 9 + 9 + 9 = 9^4 = 36 square units

Scoring Instructions		
Student Action		**Test Administrator Action**
If the student finds "$6 \times 6 = 6^2 =$ 36 square units" in Stimulus 20b,	➨	mark **A** for question 20.
If the student does not find "$6 \times 6 = 6^2 =$ 36 square units" in Stimulus 20b,	➨	replicate the initial presentation instructions.
After the teacher repeats the instructions, if the student finds "$6 \times 6 = 6^2 = 36$ square units" in Stimulus 20b,	➨	mark **B** for question 20.
After the teacher repeats the instructions, if the student does not find "$6 \times 6 = 6^2 =$ 36 square units" in Stimulus 20b,	➨	mark **C** for question 20.

TEST ADMINISTRATOR MANUAL

STAAR ALTERNATE 2
Algebra I

April 2019

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