

TEST ADMINISTRATOR MANUAL

Algebra I

STAAR Alternate 2

Administered April 2016

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.12	The student applies the mathematical process standards and algebraic methods to write, solve, analyze, and evaluate equations, relations, and functions.	
Essence Statement	Finds values for or identifies functions, sequences, or formulas.	
Item 1 Prerequisite Skill	represent real-world relationships using number pairs in a table and verbal descriptions (3)	
Item 2 Prerequisite Skill	represent real-world relationships using number pairs in a table and verbal descriptions (3)	
Item 3 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 4 Prerequisite Skill	represent mathematical and real-world problems involving ratios and rates using scale factors, tables, graphs, and proportions (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 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 word problems involving addition and subtraction of whole numbers up to 20 using concrete and pictorial models and number sentences (1)	
Item 7 Prerequisite Skill	generate a numerical pattern when given a rule in the form $y = ax$ or $y = x + a$ and graph (5)	
Item 8 Prerequisite Skill	apply qualitative and quantitative reasoning to solve prediction and comparison of real-world problems involving ratios and rates (6)	

Algebra I		Cluster 3
Reporting Category 2	Describing and Graphing Linear Functions, Equations, 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 9 Prerequisite Skill	represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations (3)	
Item 10 Prerequisite Skill	represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations (3)	
Item 11 Prerequisite Skill	apply qualitative and quantitative reasoning to solve prediction and comparison of real-world problems involving ratios and rates (6)	
Item 12 Prerequisite Skill	apply qualitative and quantitative reasoning to solve prediction and comparison of real-world problems involving ratios and rates (6)	

Algebra I		Cluster 4
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 13 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 14 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)	

Algebra I		Cluster 4
Item 15 Prerequisite Skill	model and solve one-variable, one-step equations and inequalities that represent problems, including geometric concepts (6)	
Item 16 Prerequisite Skill	model and solve one-variable, one-step equations and inequalities that represent problems, including geometric concepts (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.8	The student applies the mathematical process standards to solve, with and without technology, quadratic equations and evaluate the reasonableness of their solutions. The student formulates statistical relationships and evaluates their reasonableness based on real-world data.	
Essence Statement	Uses quadratic equations to model or solve problems using real-world data.	
Item 17 Prerequisite Skill	represent real-world relationships using number pairs in a table and verbal descriptions (3)	
Item 18 Prerequisite Skill	represent real-world relationships using number pairs in a table and verbal descriptions (3)	
Item 19 Prerequisite Skill	recognize the difference between additive and multiplicative numerical patterns given in a table or graph (5)	
Item 20 Prerequisite Skill	model and solve one-variable, one-step equations and inequalities that represent problems, including geometric concepts (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:* **A student rides a bus to the store.**
- *Direct* the student to the first row in the table. *Communicate:* **One trip costs \$4.00.**
- *Direct* the student to the second row of the table. *Communicate:* **Two trips cost \$8.00.**
- *Direct* the student to the empty cell. *Communicate:* **The cost for 3 trips is missing from the table.**
- *Direct* the student to the "\$12.00." *Communicate:* **Three bus trips cost \$12.00.**
- *Direct* the student back to the empty cell. *Communicate:* **Here is where the \$12.00 goes in the table.**
- *Communicate:* **Find where the \$12.00 goes in the table.**

Stimulus 1



Number of Bus Trips 	Cost 
1	\$4.00
2	\$8.00
3	*

\$12.00

Scoring Instructions



Student Action		Test Administrator Action
If the student finds the empty cell,	➡	mark A for question 1 and move to question 2.
If the student does not find the empty cell,	➡	<ul style="list-style-type: none"> • 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 empty cell,	➡	mark B for question 1 and move to question 2.
After the five-second wait time, if the student does not find the empty cell,	➡	mark C for question 1 and move to question 2.

Presentation Instructions for Question 2

- Present Stimulus 2a and 2b.
- Direct the student to the table. *Communicate:* **This table shows the number of bus trips a student takes and the cost of the trips.**
- Direct the student to each completed row in the table. *Communicate:* **One trip, 4 dollars. Two trips, 8 dollars. Three trips, 12 dollars.**
- Direct the student to the empty row. *Communicate:* **The number pair that belongs in this row of the table is missing.**
- Direct the student to each answer choice in Stimulus 2b. *Communicate* each answer choice.
- *Communicate:* **Find the number pair that belongs in the empty row.**

Stimulus 2a



Number of Bus Trips 	Cost 
1	\$4.00
2	\$8.00
3	\$12.00

Stimulus 2b

*	4	\$16.00
	5	\$16.00

Scoring Instructions


Student Action		Test Administrator Action
If the student finds the row with 4 and \$16.00,	➡	mark A for question 2 and move to question 3.
If the student does not find the row with 4 and \$16.00,	➡	<ul style="list-style-type: none"> • model the desired student action by finding the row with 4 and \$16.00 and <i>communicate</i> “This is the number pair that belongs in the empty row”; and • replicate the initial presentation instructions.
After teacher modeling, if the student finds the row with 4 and \$16.00,	➡	mark B for question 2 and move to question 3.
After teacher modeling, if the student does not find the row with 4 and \$16.00,	➡	mark C for question 2 and move to question 3.

Presentation Instructions for Question 3

- Present Stimulus 3a and 3b.
- Direct the student to Stimulus 3a. *Communicate:* **This table shows the number of songs a student buys on the Internet and their cost. Two number pairs are missing in the table.**
- *Communicate* the information in the table. *Communicate* each answer choice.
- Direct the student to each answer choice in Stimulus 3b.
- *Communicate:* **Find the number pairs that are missing in the table.**

Stimulus 3a

Buying Songs

Number of Songs 🎵	Cost 
4	\$12.00
5	\$15.00
7	\$21.00

Stimulus 3b

6	\$18.00
8	\$11.00

*

6	\$18.00
8	\$24.00

2	\$8.00
8	\$24.00

Scoring Instructions

Student Action	➡	Test Administrator Action
If the student finds the number pairs “6, \$18.00” and “8, \$24.00,”	➡	mark A for question 3 and move to question 4.
If the student does not find the number pairs “6, \$18.00” and “8, \$24.00,”	➡	<p>provide one of these allowable teacher assists to the student:</p> <ul style="list-style-type: none"> • Have the student identify the pattern in each row of the table. OR • Highlight the empty cells in the table. OR • Have the student try out each answer choice in the table. OR • Allow the student to use a calculator. <p>Replicate the initial presentation instructions.</p>
After the selected teacher assistance, if the student finds the number pairs “6, \$18.00” and “8, \$24.00,”	➡	mark B for question 3 and move to question 4.
After the selected teacher assistance, if the student does not find the number pairs “6, \$18.00” and “8, \$24.00,”	➡	mark C for question 3 and move to question 4.

Presentation Instructions for Question 4

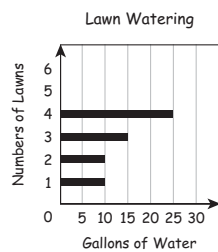
- Present Stimulus 4a and 4b. *Communicate:* **A student waters lawns in the summer.**
- *Direct* the student to Stimulus 4a. *Communicate:* **This table shows the gallons of water the student uses for the number of lawns she waters.**
- *Direct* the student to each answer choice in Stimulus 4b.
- *Communicate:* **Find the graph that shows the same data as the table.**

Stimulus 4a

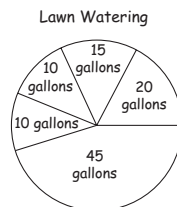
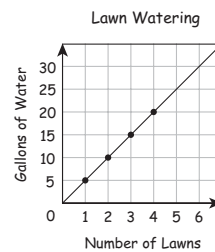
Lawn Watering

Number of Lawns	Gallons of Water
1	5
2	10
3	15
4	20

Stimulus 4b



*



Scoring Instructions

Student Action		Test Administrator Action
If the student finds the line graph,	➡	mark A for question 4 and move to question 5.
If the student does not find the line graph,	➡	replicate the initial presentation instructions.
After the teacher repeats the instructions, if the student finds the line graph,	➡	mark B for question 4 and move to question 5.
After the teacher repeats the instructions, if the student does not find the line graph,	➡	mark C for question 4 and move to question 5.

Presentation Instructions for Question 5

- Present Stimulus 5.
- Direct the student to the equation. *Communicate:* **This equation shows that 7 + 8 equals 15.**
- *Communicate:* **Find the equation that shows 8 has been added.**

Stimulus 5

*

7	+	8	=	15
☆☆☆☆☆ ☆☆☆☆☆		☆☆☆☆ ☆☆☆☆		☆☆☆☆☆☆☆☆ ☆☆☆☆☆☆☆☆

Scoring Instructions

Student Action	➡	Test Administrator Action
If the student finds the equation,	➡	mark A for question 5 and move to question 6.
If the student does not find the equation,	➡	<ul style="list-style-type: none"> • 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 equation,	➡	mark B for question 5 and move to question 6.
After the five-second wait time, if the student does not find the equation,	➡	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 equations in Stimulus 6a. *Communicate*: **These equations show that 8 is added to 7 to equal 15 and that 8 is added to 6 to equal 14.**
- Direct the student to each answer choice in Stimulus 6b. *Communicate* each answer choice.
- *Communicate*: **Find the table that shows the same pattern as the equations.**

Stimulus 6a

$$7 + 8 = 15$$

$$6 + 8 = 14$$

Stimulus 6b

*	7 → 15	1 → 22
	6 → 14	2 → 20

Scoring Instructions

Student Action		Test Administrator Action
If the student finds the table with “7, 15” and “6, 14” in Stimulus 6b,	➡	mark A for question 6 and move to question 7.
If the student does not find the table with “7, 15” and “6, 14” in Stimulus 6b,	➡	<ul style="list-style-type: none"> • model the desired student action by finding the table with “7, 15” and “6, 14” in Stimulus 6b and <i>communicate</i> “This table shows the same ‘plus eight’ pattern as the equations”; and • replicate the initial presentation instructions.
After teacher modeling, if the student finds the table with “7, 15” and “6, 14” in Stimulus 6b,	➡	mark B for question 6 and move to question 7.
After teacher modeling, if the student does not find the table with “7, 15” and “6, 14” 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 the equations in Stimulus 7a. *Communicate:* **These equations are part of a pattern where each number is multiplied by 8.**
- Communicate the equations in Stimulus 7a.
- Direct the student to the empty box. *Communicate:* **The next equation in this pattern is missing.**
- Direct the student to each answer choice in Stimulus 7b. *Communicate* each answer choice.
- *Communicate:* **Find the next equation in the pattern.**

Stimulus 7a

$$2 \times 8 = 16$$

$$5 \times 8 = 40$$

$$8 \times 8 = 64$$

Stimulus 7b

$10 \times 8 = 80$

$3 \times 8 = 24$

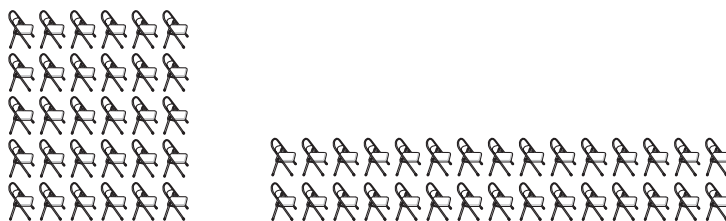
$11 \times 8 = 88$

Scoring Instructions		
Student Action		Test Administrator Action
If the student finds "11 × 8 = 88,"	➡	mark A for question 7 and move to question 8.
If the student does not find "11 × 8 = 88,"	➡	provide one of these allowable teacher assists to the student: <ul style="list-style-type: none"> Have the student identify how the first number in each equation changes. OR Have the student use a number line to plot the first number in each equation. OR Allow the student to use a calculator or multiplication chart. Replicate the initial presentation instructions.
After the selected teacher assistance, if the student finds "11 × 8 = 88,"	➡	mark B for question 7 and move to question 8.
After the selected teacher assistance, if the student does not find "11 × 8 = 88,"	➡	mark C for question 7 and move to question 8.

Presentation Instructions for Question 8

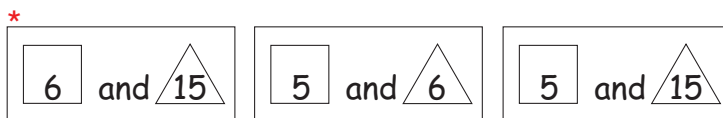
- Present Stimulus 8a and 8b. *Communicate:* **Chairs are needed for an event with 30 people.**
- Direct the student to Stimulus 8a. *Communicate:* **The 30 chairs can be arranged in 5 rows or 2 rows.**
- Direct the student to the equation in Stimulus 8a. *Communicate* the equation.
- Direct the student to each answer choice in Stimulus 8b.
- *Communicate:* **Find the pair of numbers that completes the equation.**

Stimulus 8a



$$5 \times \square = 2 \times \triangle$$

Stimulus 8b




Scoring Instructions

Student Action		Test Administrator Action
If the student finds $\square 6$ and $\triangle 15$ in Stimulus 8b,	➔	mark A for question 8 and move to question 9.
If the student does not find $\square 6$ and $\triangle 15$ in Stimulus 8b,	➔	replicate the initial presentation instructions.
After the teacher repeats the instructions, if the student finds $\square 6$ and $\triangle 15$ 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 $\square 6$ and $\triangle 15$ 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 Stimulus 9. *Communicate:* **A student buys a cap for \$12.00 and a T-shirt for \$24.00.**
- *Communicate:* **Find the T-shirt that is two times the price of the cap.**

Stimulus 9



\$12.00

*


\$24.00

Scoring Instructions		
Student Action		Test Administrator Action
If the student finds the T-shirt,	➡	mark A for question 9 and move to question 10.
If the student does not find the T-shirt,	➡	<ul style="list-style-type: none">• 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 T-shirt,	➡	mark B for question 9 and move to question 10.
After the five-second wait time, if the student does not find the T-shirt,	➡	mark C for question 9 and move to question 10.

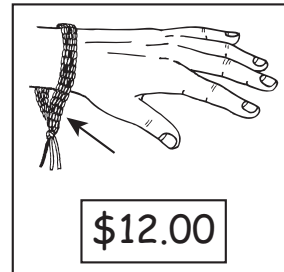
Presentation Instructions for Question 10

- Present Stimulus 10a and 10b.
- Direct the student to Stimulus 10a. *Communicate:* **A student buys a T-shirt that is two times the price of the cap.**
- Direct the student to each answer choice in Stimulus 10b. *Communicate:* **These shoes have a price of \$24.00. This bracelet has a price of \$12.00.**
- *Communicate:* **Find the item that has a price of \$24.00.**

Stimulus 10a



Stimulus 10b



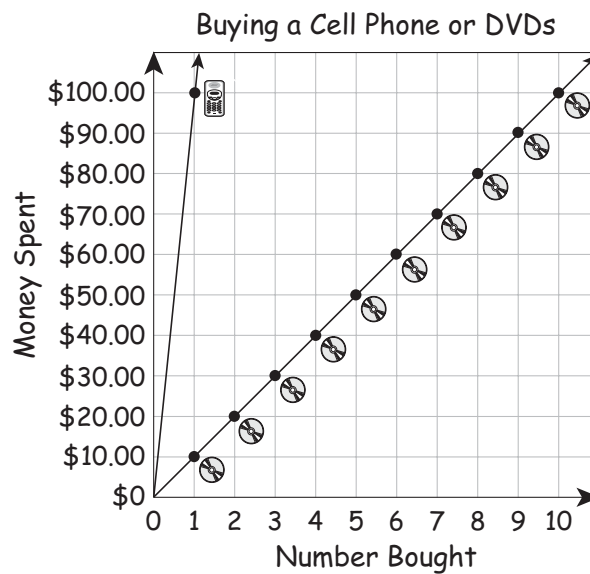
Scoring Instructions

Student Action		Test Administrator Action
If the student finds the shoes,	➡	mark A for question 10 and move to question 11.
If the student does not find the shoes,	➡	<ul style="list-style-type: none"> • model the desired student action by finding the shoes and <i>communicate</i> “These shoes have a price of \$24.00”; and • replicate the initial presentation instructions.
After teacher modeling, if the student finds the shoes,	➡	mark B for question 10 and move to question 11.
After teacher modeling, if the student does not find the shoes,	➡	mark C for question 10 and move to question 11.

Presentation Instructions for Question 11

- Present Stimulus 11a and 11b.
- Direct the student to Stimulus 11a. *Communicate:* **A student has \$100.00 to spend. She wants to spend her money on either a cell phone or DVDs.**
- Direct the student to the first line on the graph. *Communicate:* **This line shows that the student can buy one cell phone for \$100.00.**
- Direct the student to the second line on the graph. *Communicate:* **This line shows that the student can buy 10 DVDs for \$100.00.**
- Direct the student to the stem and each answer choice in Stimulus 11b. *Communicate* the text in the stem and each answer choice.
- *Communicate:* **Find the statement that matches what the graph shows.**

Stimulus 11a



Stimulus 11b

The student can buy —

*** more DVDs than cell phones,**
because the cost of the cell phone is
10 times the cost of a DVD

more cell phones than DVDs,
because the cost of the DVDs is 10
times the cost of a cell phone

**the same number of cell phones as
DVDs, because they both cost the
same amount**

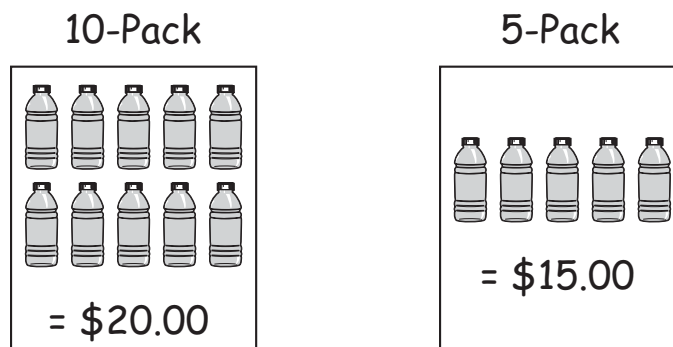
Scoring Instructions

Student Action		Test Administrator Action
If the student finds the statement that begins “more DVDs than cell phones . . . ,”	➡	mark A for question 11 and move to question 12.
If the student does not find the statement that begins “more DVDs than cell phones . . . ,”	➡	provide one of these allowable teacher assists to the student: <ul style="list-style-type: none">• Role-play purchasing one cell phone for \$100.00 and 10 DVDs for \$100.00. OR• Highlight each DVD and cell phone on the graph. Replicate the initial presentation instructions.
After the selected teacher assistance, if the student finds the statement that begins “more DVDs than cell phones . . . ,”	➡	mark B for question 11 and move to question 12.
After the selected teacher assistance, if the student does not find the statement that begins “more DVDs than cell phones . . . ,”	➡	mark C for question 11 and move to question 12.

Presentation Instructions for Question 12

- Present Stimulus 12a and 12b. *Communicate*: **A student is buying sports drinks at a store and wants the better deal. The student knows that to get the better deal, he needs to spend less money per bottle.**
- Direct the student to Stimulus 12a. *Communicate*: **A 10-pack of sports drinks costs \$20.00. A 5-pack of sports drinks costs \$15.00.**
- Direct the student to each answer choice in Stimulus 12b. *Communicate* the text in each answer choice.
- *Communicate*: **Find the statement that tells which pack of sports drinks is a better deal because of a lower cost per bottle.**

Stimulus 12a



Stimulus 12b

The 5-pack is a better deal, because each bottle costs \$3.00.

The 5-pack is a better deal, because \$15.00 is less than \$20.00.

*
The 10-pack is a better deal, because each bottle costs \$2.00.

Scoring Instructions

Student Action	→	Test Administrator Action
If the student finds the statement “The 10-pack is a better deal, because each bottle costs \$2.00,”	→	mark A for question 12 and move to question 13.
If the student does not find the statement “The 10-pack is a better deal, because each bottle costs \$2.00,”	→	replicate the initial presentation instructions.
After the teacher repeats the instructions, if the student finds the statement “The 10-pack is a better deal, because each bottle costs \$2.00,”	→	mark B for question 12 and move to question 13.
After the teacher repeats the instructions, if the student does not find the statement “The 10-pack is a better deal, because each bottle costs \$2.00,”	→	mark C for question 12 and move to question 13.

Presentation Instructions for Question 13

- Present Stimulus 13.
- Direct the student to Stimulus 13. *Communicate:* **This is a table of numbers. In each row, the same factor is used one more time to get the numbers in the second column.**
- *Communicate:* **Find the table of numbers.**

Stimulus 13

*

2	2
2×2	4
$2 \times 2 \times 2$	8

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,	➡	<ul style="list-style-type: none">• 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 is a table of numbers where the number two is being used as a factor one more time in each row.**
- Direct the student to each answer choice in Stimulus 14b.
- *Communicate*: **Find the column that shows how the same factor is used one more time in each row.**

Stimulus 14a

2	2
2×2	4
$2 \times 2 \times 2$	8

Stimulus 14b

2	*	2
$2 + 2$		2×2
$2 + 2 + 2$		$2 \times 2 \times 2$

Scoring Instructions

Student Action		Test Administrator Action
If the student finds the column with 2, 2×2 , and $2 \times 2 \times 2$,	➡	mark A for question 14 and move to question 15.
If the student does not find the column with 2, 2×2 , and $2 \times 2 \times 2$,	➡	<ul style="list-style-type: none"> • model the desired student action by finding the column with 2, 2×2, and $2 \times 2 \times 2$ and <i>communicate</i> “This is the column that shows how the same factor is used one more time in each row”; and • replicate the initial presentation instructions.
After teacher modeling, if the student finds the column with 2, 2×2 , and $2 \times 2 \times 2$,	➡	mark B for question 14 and move to question 15.
After teacher modeling, if the student does not find the column with 2, 2×2 , and $2 \times 2 \times 2$,	➡	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 a number pattern. The numbers in the fourth row of this table are missing.**
- Direct the student to each answer choice in Stimulus 15b.
- *Communicate:* **Find the numbers that belong in the fourth row of the table.**

Stimulus 15a

3	3
3×3	9
$3 \times 3 \times 3$	27

Stimulus 15b

$3 \times 3 \times 3 \times 3 \times 3$	243
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* $3 \times 3 \times 3 \times 3$	81
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$3 + 3 + 3 + 3$	12
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Scoring Instructions

Student Action		Test Administrator Action
If the student finds the row with “ $3 \times 3 \times 3 \times 3$ ” and “81,”	➡	mark A for question 15 and move to question 16.
If the student does not find the row with “ $3 \times 3 \times 3 \times 3$ ” and “81,”	➡	<p>provide one of these allowable teacher assists to the student:</p> <ul style="list-style-type: none"> • Have the student identify the pattern in the first column of the table. OR • Highlight the numbers on the right side of the table. OR • Highlight the operation symbols on the left side of the table. <p>Replicate the initial presentation instructions.</p>
After the selected teacher assistance, if the student finds the row with “ $3 \times 3 \times 3 \times 3$ ” and “81,”	➡	mark B for question 15 and move to question 16.
After the selected teacher assistance, if the student does not find the row with “ $3 \times 3 \times 3 \times 3$ ” and “81,”	➡	mark C for question 15 and move to question 16.



Presentation Instructions for Question 16

- Present Stimulus 16.
- *Communicate:* **A rancher had deer on his land. The number of deer doubled each year.**
- *Direct* the student to each answer choice.
- *Communicate:* **Find the table that shows that the number of deer doubled each year.**



Stimulus 16

Deer Population



*

Number of Years 	Number of Deer 
1	2
2	4
3	8

Deer Population

Number of Years 	Number of Deer 
1	3
2	9
3	27

Deer Population

Number of Years 	Number of Deer 
1	2
2	4
3	6

Scoring Instructions




Student Action		Test Administrator Action
If the student finds the table with the number of deer equal to 2, 4, and 8,	➡	mark A for question 16 and move to question 17.
If the student does not find the table with the number of deer equal to 2, 4, and 8,	➡	replicate the initial presentation instructions.
After the teacher repeats the instructions, if the student finds the table with the number of deer equal to 2, 4, and 8,	➡	mark B for question 16 and move to question 17.
After the teacher repeats the instructions, if the student does not find the table with the number of deer equal to 2, 4, and 8,	➡	mark C for question 16 and move to question 17.

Presentation Instructions for Question 17

- Present Stimulus 17.
- Direct the student to Stimulus 17. *Communicate:* **This is one row of a table that shows how the side length and the area of a square are related.**
- Direct the student to the row of data in the table. *Communicate:* **A square has a side length of 2 feet. 2 feet \times 2 feet equals an area of 4 square feet.**
- *Communicate:* **Find the table that shows 2×2 .**

Stimulus 17

*

Side Length (feet)	\longrightarrow	Area (square feet)
 2	 2×2	 4











Scoring Instructions

Student Action		Test Administrator Action
If the student finds the table,	\longrightarrow	mark A for question 17 and move to question 18.
If the student does not find the table,	\longrightarrow	<ul style="list-style-type: none"> • 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,	\longrightarrow	mark B for question 17 and move to question 18.
After the five-second wait time, if the student does not find the table,	\longrightarrow	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:* **The table now has more rows that show how the side lengths and the areas of squares are related.**
- Direct the student to the first row of data in the table. *Communicate:* **The first row of the table shows that a square has a side length of 2 feet. 2 feet \times 2 feet equals an area of 4 square feet.**
- Direct the student to the second row of data in the table. *Communicate:* **The second row of the table shows that a square has a side length of 3 feet. 3 feet \times 3 feet equals an area of 9 square feet.**
- Direct the student to the empty triangle in the third row of the table. *Communicate:* **The side length is missing from this row. 4 feet \times 4 feet equals an area of 16 square feet.**
- *Communicate:* **Find the side length that is missing.**

Stimulus 18a

Side Length (feet)	\longrightarrow	Area (square feet)
 2	 2×2	 4
 3	 3×3	 9
 	 4×4	 16

Stimulus 18b



*



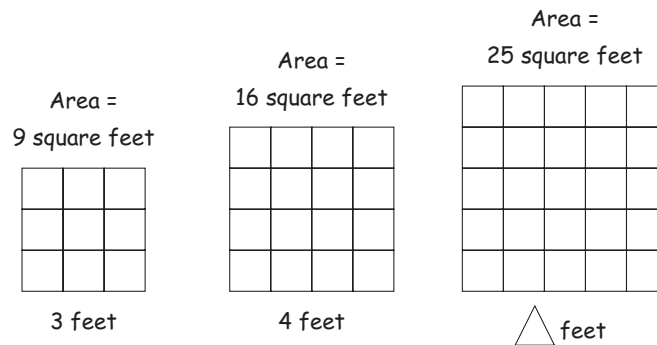
Scoring Instructions

Student Action	→	Test Administrator Action
If the student finds “4” in Stimulus 18b,	→	mark A for question 18 and move to question 19.
If the student does not find “4” in Stimulus 18b,	→	<ul style="list-style-type: none"> • model the desired student action by finding “4” in Stimulus 18b and <i>communicate</i> “Four feet is the side length that is missing”; and • replicate the initial presentation instructions.
After teacher modeling, if the student finds “4” in Stimulus 18b,	→	mark B for question 18 and move to question 19.
After teacher modeling, if the student does not find “4” in Stimulus 18b,	→	mark C for question 18 and move to question 19.

Presentation Instructions for Question 19

- Present Stimulus 19a and 19b.
- Direct the student to Stimulus 19a. *Communicate:* **The areas of these three squares are given. The side lengths for the first two squares are given. The side length is missing for the square that has an area of 25 square feet.**
- Direct the student to each answer choice in Stimulus 19b.
- *Communicate:* **Find the equation that can be used to find the side length of the square with an area of 25 square feet.**

Stimulus 19a



Stimulus 19b

*

$$\triangle \times \triangle = 25$$

$$\triangle + \triangle = 25$$

$$\triangle - \triangle = 25$$

Scoring Instructions

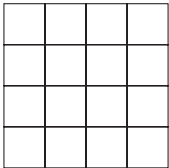
Student Action		Test Administrator Action
If the student finds $\Delta \times \Delta = 25$,	➡	mark A for question 19 and move to question 20.
If the student does not find $\Delta \times \Delta = 25$,	➡	<p>provide one of these allowable teacher assists to the student:</p> <ul style="list-style-type: none"> • Highlight the length and width on each square in Stimulus 19a. OR • Have the student identify the formula for the area of a square. OR • Have the student try out the missing side length in each answer choice. OR • Allow the student to use a calculator or multiplication chart. <p>Replicate the initial presentation instructions.</p>
After the selected teacher assistance, if the student finds $\Delta \times \Delta = 25$,	➡	mark B for question 19 and move to question 20.
After the selected teacher assistance, if the student does not find $\Delta \times \Delta = 25$,	➡	mark C for question 19 and move to question 20.

Presentation Instructions for Question 20

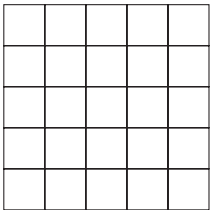
- Present Stimulus 20a and 20b.
- Direct the student to the area of each square in Stimulus 20a. Communicate the area of each square.
- Direct the student to one side of each of the first two squares. Communicate: **This is the side length of the first square. This is the side length of the second square.**
- Direct the student to one side of the third square. Communicate: **The side length of the square with an area of 36 square feet is missing.**
- Direct the student to each answer choice in Stimulus 20b.
- Communicate: **Find the side length of the square with an area of 36 square feet.**

Stimulus 20a

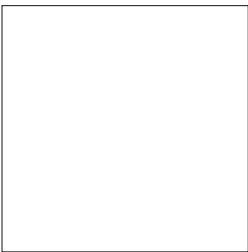
Area =
16 square feet



Area =
25 square feet



Area =
36 square feet



Stimulus 20b

5 feet

*

6 feet

7 feet

Scoring Instructions

Student Action		Test Administrator Action
If the student finds “6 feet,”	➡	mark A for question 20.
If the student does not find “6 feet,”	➡	replicate the initial presentation instructions.
After the teacher repeats the instructions, if the student finds “6 feet,”	➡	mark B for question 20.
After the teacher repeats the instructions, if the student does not find “6 feet,”	➡	mark C for question 20.

**TEST
ADMINISTRATOR
MANUAL**

**STAAR ALTERNATE 2
Algebra I
April 2016**