## Math Grade 6

The lead4ward transitional items are designed to provide teachers and leaders with examples of how released multiple-choice items could look in the format of the STAAR 2.0 new item types. The lead4ward crew has adapted elementary and secondary items in various TEKS clusters for STAAR-tested courses. Within those TEKS clusters, new item types that are applicable to the specific grade and subject are represented.

The transitional items can be used with the PLC:

- when planning for application of learning and transfer to STAAR
- to analyze and discuss the STAAR 1.0 and 2.0 examples, including:
  - the similarities and differences between multiple-choice and new item type thinking, stimuli, and representation of the content
- how the new item types may be better or more challenging for students
- student misconceptions and mistakes
- how specific online tools and resources may support particular new item types

The transitional items can also be used with students during instruction:

- as prompts for bell ringers, modeling with assessment items, analysis and discussion in centers or workstations, and with Learning from Mistakes strategies on the lead4ward playlist
- $\bullet$  to analyze and discuss the STAAR 1.0 and 2.0 examples, including:
- the similarities and differences between multiple-choice and new item type thinking, stimuli, and representation of the content
- how the new item types may be better or more challenging
- possible learning mistakes
- how specific online tools may support particular new item types

#### Grade 6

**All Operations with Rational Numbers** 

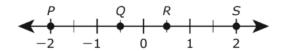


STAAR Released Item Hot Spot

6.2(B) 2019 item 19

[All Operations with Integers]

Four points are labeled on the number line.

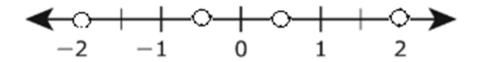


Which point represents the value of  $\left|-\frac{1}{2}\right|$ ?

- A Point P
- **B** Point Q
- C Point R
- **D** Point S

Which point represents the value of  $\left|-\frac{1}{2}\right|$ ?

Select **ONE** correct answer.



# 6.2(B) 2019 item 19 [Multiplication and Division with Positive Rational Numbers] Amy has 5 yd of border to put around a garden. She uses all the border to make four sections that are the same length. Which expression does NOT equal the length of one of these sections in yards? Amy has 5 yd of border to put around a garden. She uses all the border to make four sections that are the same length. Which expression equals the length of the one of these sections in yards? Select THREE expressions that equals the length of the one of these sections in yards.

- F 4÷5
- .. 5
- J 5 ÷ 4

- ☐ 4 ÷ 5
- □ 4)5
- $\Box \frac{5}{4}$
- □ 5 ÷ 4

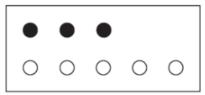


#### 6.3(C) 2021 item 3

[All Operations with Integers]

The circles in the model represent positive and negative units.

STAAR Released Item



KEY

= 1

= -1

Which equation is true based on the model?

A 
$$(-3) + 5 = -2$$

$$B(-3) + 5 = 2$$

$$C -3 + (-5) = -2$$

D 
$$3 + (-5) = 2$$

The circles in the model represent positive and negative units.

**Drag and Drop** 



Complete the model to represent the equation 3 + (-5) = 2.

Move the correct circles to the box.

Answers may be used more than once.

#### STAAR Released Item

#### 6.3(D) 2021 item 7

[All Operations with Integers]

What is the value of the expression shown?

$$4(-2) + (-10) + 3(-8)$$

A -22

B -13

C 7

D -42

#### **Equation Editor/Text Entry**

What is the value of the expression shown?

$$4(-2) + (-10) + 3(-8)$$

Enter your answer in the space below.

• • • • •								
1	2	3	+	-	×	+		
4	5	6	<	-	>			
7	8	9	()					
0		8						



	STAAR Released Item			Multi	select		
(3(D) 2021 item 25 All Operations with Integers]	Which equation is NOT true?  A $-4 + (-3) = -7$ B $-8(2) = -16$ C $3 - (-2) = 5$ D $-12 \div (-3) = -4$		□ -4 □ -8 □ 3-	REE equa + (-3) (2) = - $\cdot (-2) =$ $2 \div (-3)$	= -7 16 5	are true.	
			_		•		
	STAAR Released Item			Equation Edi		ry	
• •	STAAR Released Item th Positive Rational Numbers]	Jaida worke		Equation Edi	itor/Text Ent		hour of work.
			d 21 ½ houi	Equation Edi	tor/Text Ent		hour of work.
ultiplication and Division wit	th Positive Rational Numbers] s last week. She earned \$11.60 per hour of work.	How much r	d 21 ½ houi money did Ja	Equation Edi	tor/Text Ent She earned to tweek?		hour of work.
Ultiplication and Division with Jaida worked $21\frac{1}{2}$ hours How much money did J	th Positive Rational Numbers] s last week. She earned \$11.60 per hour of work.	How much r	d 21 ½ houi money did Ja	Equation Edi s last week.	tor/Text Ent She earned to tweek?		hour of work.
Jaida worked $21\frac{1}{2}$ hours How much money did J Record your answer ans	th Positive Rational Numbers] s last week. She earned \$11.60 per hour of work. laida earn last week?	How much r	d 21 ½ hour money did Ja answer in the	s last week.	tor/Text Ent She earned to tweek?	\$11.60 per	
Utiplication and Division with Jaida worked $21\frac{1}{2}$ hours How much money did Jaccord your answer and	th Positive Rational Numbers] s last week. She earned \$11.60 per hour of work. laida earn last week?	How much i	d 21 ½ hour money did Janswer in the	s last week.	tor/Text Ent She earned st week? v.	\$11.60 per	hour of work.
Ultiplication and Division with Jaida worked $21\frac{1}{2}$ hours How much money did Jaccord your answer and	th Positive Rational Numbers] s last week. She earned \$11.60 per hour of work. laida earn last week?	How much r	d 21 ½ hour money did Ja answer in the	s last week.	tor/Text Ent She earned s week? v.	\$11.60 per	



STAAR Released Item	Inline Choice
6.3(E) 2017 item 6 [Multiplication and Division with Positive Rational Numbers]  A team of workers took 167.3 hours to complete a task. A smaller team of workers will complete the same task, but it will take them 1.25 times as long as it took the first team.  Based on this information, which statement is true?	A team of workers took 167.3 hours to complete a task. A smaller team of workers will complete the same task, but it will take them 1.25 times as long as it took the first team.
<ul> <li>F The task will take the smaller team of workers 168.55 hours to complete, because 167.3 + 1.25 = 168.55.</li> <li>G The task will take the smaller team of workers 179.8 hours to complete, because 167.3 + 1.25 = 179.8.</li> </ul>	Choose the correct answer from the drop-down menu to complete the statement.
<ul> <li>H The task will take the smaller team of workers 198.825 hours to complete, because 167.3 x 1.25 = 198.825.</li> <li>J The task will take the smaller team of workers 209.125 hours to complete, because 167.3 x 1.25 = 209.125.</li> </ul>	The task will take the smaller team of workers hours to complete,  168.55 179.8 198.825 209.125
	because

## Grade 6 Proportional Reasoning



STAAR Released Item	Multiselect
<ul> <li>6.4(B) 2019 item 34 [Ratios/Rates]</li> <li>A grocery store clerk put only packages of flour tortillas and packages of corn tortillas on a shelf. The ratio of the number of packages of corn tortillas to the total number of packages on the shelf was 7 to 16.</li> <li>Which number could be the number of packages of flour tortillas the clerk put on the shelf?</li> <li>F 23</li> <li>G 18</li> <li>H 14</li> <li>J 32</li> </ul>	A grocery store clerk put only packages of flour tortillas and packages of corn tortillas on a shelf. The ratio of the number of packages of corn tortillas to the total number of packages on the shelf was 7 to 16.  Which TWO numbers could be the number of packages of flour tortillas the clerk put on the shelf?  23 18 18 14 36
STAAR Released Item	Inline Choice
<ul> <li>(A(B) 2017 item 17 [Ratios/Rates]</li> <li>Megan and Desmond each added the same amount of water to their aquariums. Megan mixed 5 mL of a chemical solution with every gallon of water for her aquarium. Desmond mixed 8 mL of the chemical solution with every 2 gallons of water for his aquarium.</li> <li>Which of these statements is true?</li> <li>A Megan used more solution per gallon of water than Desmond, because 5:1 is greater than 8:2.</li> <li>B Megan used more solution per gallon of water than Desmond, because 5 mL is greater than 2 mL.</li> <li>C Desmond used more solution per gallon of water than Megan, because 8 mL is greater than 5 mL.</li> <li>D Desmond used more solution per gallon of water than Megan, because 8:2 is greater than 5:1.</li> </ul>	Megan and Desmond each added the same amount of water to their aquariums. Megan mixed 5 mL of a chemical solution with every 2 gallons of water for her aquarium. Desmond mixed 8 mL of the chemical solution with every 2 gallons of water for his aquarium.  Choose the correct answer from each drop-down menu to complete the statement.  Megan and Desmond each added the same amount of water to their aquariums. Megan mixed 5 mL of a chemical solution with every gallon of water for her aquarium. Desmond mixed 8 mL of the chemical solution with every 2 gallons of water for his aquarium.  Megan used solution per gallon of water than Desmond, because more less  Solution per gallon of water than Desmond, because solution is greater than solution.  5:1  8:2  8:2



STAAR Released Item	Multiselect
[Ratios/Rates]  A grocery store orders 4 large containers of milk for every 7 small containers of milk. Which ratio could represent the number of large containers of milk to small containers of milk in an order from the grocery store?  F 18:21  G 14:8  H 16:49  J None of these	A grocery store orders 4 large containers of milk for every 7 small containers of milk.  Select TWO ratios that could represent the number of large containers of milk to small containers of milk in an order from the grocery store.  18:21 14:8 16:49 12:21 8:14
STAAR Released Item	Inline Choice
6.4(D) 2016 item 23 [Ratios/Rates]	A county with an area of 425 square miles has a population of 9,350 residents.
A county with an area of 425 square miles has a population of 9,350 residents. Which rate best represents the relationship between the population of the county and the area of the county?  A 22 square miles per resident  B 9,350 residents per square mile  C 22 residents per square mile  D 425 square miles per resident	Choose the correct answer from each drop-down menu to complete the statement that best represents the relationship between the population of the county and the area of the county.  22 per residents residents square miles



STAAR Released Item **Drag and Drop** 6.4(E) 2016 item 35 [Fractions/Decimals/Percents] The shaded area on the grid represents the part of a rectangular wall that was painted. Each small square on the wall has the same dimensions. The shaded area on the grid represents the part of a rectangular wall that was painted. Each small square on the wall has the same dimensions. Complete the grid to represent 60% of the wall being painted. Move square units to the grid to represent the model. What percentage of the wall was painted? A 64% B 24% C 60% **D** 16% STAAR Released Item **Hot Spot** 6.4(F) 2022 item 31 [Fractions/Decimals/Percents] Four points are plotted on the number line. Select **ONE** point on the number line that represents  $33\frac{1}{2}$  %. **▼** | **W** | **X** | **Y** | **Z** | **→** | **→** | **→** | Which point best represents  $33\frac{1}{3}\%$  of the distance between 0 and 1? A Point W B Point X C Point Y **D** Point Z



	STAAR Released Item									Multiselect			
	Decimals/Pe is a 1 in 8 player wini	chance			inning a	a gam	e. Which value	is equi	valent t	to the c	:hance		There is a 1 in 8 chance of a player winning a game.  Select <b>TWO</b> values that are equivalent to the chance of the player winning a game.  \[ \frac{100}{125} \]  \[ \frac{125}{10} \]  \[ \frac{125}{10} \]  \[ \frac{1.25}{10} \]  \[ \frac{0.125}{0.125} \]  \[ \frac{0.125}{0.125} \]  \[ \frac{12.5\%}{0.125} \]
				STAA	AR Rel	eas	ed Item						Drag and Drop
A White  White  White  White  White  White	pink paint, S ws possible of cups of rec e Paint, w s) Paint, r s) Paint, r s)	values o	Paint 49				White Paint, w (cups)  White Paint, r (cups)  White Paint, r (cups)  White Paint, r (cups)		Paint	21 9 5	28 12 4 6		To make pink paint, Sylvia mixes 7 cups of white paint to every 3 cups of red paint.  Complete the table to represent the relationship between w, the number of cups of white paint Sylvia uses, and r, the number of cups of red paint.  Move the correct answer to each box. Not all answers will be used.  8 9 12 14 21 28  Pink Paint  White Paint, w 7 21  Red Paint, r 3 6 12



STAAR Released Item	Equation Editor/Text Entry
<ul> <li>6.5(B) 2018 item 31 [Fractions/Decimals/Percents]</li> <li>A shop owner offered a 20% discount off the regular price of a mirror. The amount of the discount is \$3.</li> <li>What is the regular price of the mirror?</li> <li>A \$15</li> <li>B \$6</li> <li>C \$9</li> <li>D \$18</li> </ul>	A shop owner offered a 20% discount off the regular price of a mirror. The amount of the discount is \$3.  What is the regular price of the mirror?  Enter your answer in the space below.  1 2 3 4 5 6 + - + + + + + + + + + + + + + + + + +

#### Grade 6

Expressions, Equations, and Inequalities



STAAR Released Item	Equation Editor/Text Entry
6.7(A) 2021 item 16 [Order of Operations]  What is the value of the expression shown?  6 + (-4) <sup>3</sup> F 8  G 6  H -70  J -58	What is the value of the expression shown? $6 + (-4)^3$ Enter your answer in the space provided.
STAAR Released Item	Multiselect
6.7(A) 2017 item 9 [Order of Operations]  Leon wrote an expression that is equivalent to (30 + 6) ÷ 12. Which expression could be the one Leon wrote?  A 36 ÷ 3 · 4  B (3 · 3 · 4) ÷ 4 · 3  C 5 · 6 + 2 · 3 ÷ 3 · 2 · 2  D (3 · 3 · 2 · 2) ÷ (3 · 2 · 2)	Select <b>TWO</b> expressions that are equivalent to $(30 + 6) \div 12$ .



STAAR Released Item	Multiselect								
.7(B) 2015 item 6 Order of Operations]	Select <b>TWO</b> can be written as an equation.								
Which of these can be written as an equation?	Two times 0.75 plus m								
A Two times 0.75 plus m	☐ Three is less than twice a								
B Three is less than twice a									
${f C}$ Half the product of five and $j$	Sixteen is three more than k								
<b>D</b> Four times <i>n</i> is 24	$\square$ Half the product of five and $j$								
	Four times n is 24								
STAAR Released Item	Equation Editor/Text Entry								
7(D) 2022 item 22									
7(D) 2022 item 22	Write an equivalent expression for $38(251m - 45)$ .								
7(D) 2022 item 22 order of Operations]									
Topic 2022 item 22 rider of Operations]  Which expression is equivalent to $38(251m - 45)$ ?  F $38 \cdot 251m - 38 \cdot 45$	Write an equivalent expression for $38(251m - 45)$ .								
T(D) 2022 item 22 order of Operations]  Which expression is equivalent to $38(251m - 45)$ ?	Write an equivalent expression for $38(251m - 45)$ .  Enter your answer in the space provided.								
T(D) 2022 item 22 rder of Operations]  Which expression is equivalent to $38(251m - 45)$ ?  F $38 \cdot 251m - 38 \cdot 45$ G $38(206m)$	Write an equivalent expression for $38(251m - 45)$ .  Enter your answer in the space provided.								
T(D) 2022 item 22 order of Operations]  Which expression is equivalent to $38(251m - 45)$ ?  F $38 \cdot 251m - 38 \cdot 45$	Write an equivalent expression for $38(251m-45)$ .  Enter your answer in the space provided.								
Tr(D) 2022 item 22 Order of Operations]  Which expression is equivalent to $38(251m - 45)$ ?  F $38 \cdot 251m - 38 \cdot 45$ G $38(206m)$	Write an equivalent expression for $38(251m - 45)$ .  Enter your answer in the space provided. $\begin{array}{ccccccccccccccccccccccccccccccccccc$								



STAAR Released Item	Equation Editor/Text Entry					
6.7(D) 2021 item 29 [Order of Operations]	Two expressions are shown. The second expression is not complete.					
Two expressions are shown. The second expression is not complete.	Expression I: $200r - (-110)$ Expression II: $+200r$					
Expression II: $200r - (-110)$ Expression II: $+ 200r$	What number belongs in the box so that Expression I is equivalent to Expression II?					
What number belongs in the box so that Expression I is equivalent to Expression II?	Enter your answer in the space provided.					
Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.						
	1 2 3 + × +					
	4 5 6 < - >					
	7 8 9 ()					
STAAR Released Item	Multiselect					
STAAR Released Item  6.7(D) 2017 item 16 [Order of Operations]	Multiselect					
6.7(D) 2017 item 16	Multiselect  Select <b>TWO</b> expressions that are equivalent to y · 48.					
6.7(D) 2017 item 16 [Order of Operations]						
6.7(D) 2017 item 16 [Order of Operations]  Which expression is equivalent to $y \cdot 48$ ? $F  (y \cdot 40) + 8$	Select <b>TWO</b> expressions that are equivalent to y · 48.					
6.7(D) 2017 item 16 [Order of Operations]  Which expression is equivalent to y • 48?	Select <b>TWO</b> expressions that are equivalent to y · 48.					
6.7(D) 2017 item 16 [Order of Operations]  Which expression is equivalent to $y \cdot 48$ ? $F  (y \cdot 40) + 8$	Select <b>TWO</b> expressions that are equivalent to $y \cdot 48$ .					



STAAR Released Item	Equation Editor/Text Entry						
6.9(A) 2017 item 8 [Representation and Solutions of Equations/Inequalities]	Liang has a goal of walking at least 18 miles. She walks at a rate of 4 miles per hour.						
Liang has a goal of walking at least 18 miles. She walks at a rate of 4 miles per hour. Which inequality can Liang use to find $h$ , the number of hours she should walk in order to meet or exceed her goal?	Write an inequality that represents how to find h, the number of hours Liang should walk in order to meet or exceed her goal.						
F $4h \ge 18$	Enter your answer in the space provided.						
G $4h \le 18$							
H $h+4 \ge 18$							
J $h + 4 \le 18$	1 2 3 h						
	4     5     6     +     -     •     +       7     8     9     <						
	0 0 π π						
	8						
STAAR Released Item	Drag and Drop						
STAAR Released Item  6.9(C) 2018 item 26 [Representation and Solutions of Equations/Inequalities]	Darren earns \$17.35 per hour at his job. How many hours does he need to						
6.9(C) 2018 item 26	Darren earns \$17.35 per hour at his job. How many hours does he need to work in order to earn more than \$624.60?						
<ul> <li>6.9(C) 2018 item 26 [Representation and Solutions of Equations/Inequalities]</li> <li>Which situation can be represented by 17.35x &gt; 624.60?</li> <li>F A waitress had received a \$17.35 tip. This brought her total in tips to more than \$624.60.</li> </ul>	Darren earns \$17.35 per hour at his job. How many hours does he need to						
<ul> <li>6.9(C) 2018 item 26 [Representation and Solutions of Equations/Inequalities]</li> <li>Which situation can be represented by 17.35x &gt; 624.60?</li> <li>F A waitress had received a \$17.35 tip. This brought her total in tips to more than \$624.60. How much money in tips did she have before the \$17.35 tip?</li> </ul>	Darren earns \$17.35 per hour at his job. How many hours does he need to work in order to earn more than \$624.60?						
<ul> <li>6.9(C) 2018 item 26 [Representation and Solutions of Equations/Inequalities]</li> <li>Which situation can be represented by 17.35x &gt; 624.60?</li> <li>F A waitress had received a \$17.35 tip. This brought her total in tips to more than \$624.60.</li> </ul>	Darren earns \$17.35 per hour at his job. How many hours does he need to work in order to earn more than \$624.60?  Complete the inequality to represent the situation.						
<ul> <li>6.9(C) 2018 item 26 [Representation and Solutions of Equations/Inequalities]</li> <li>Which situation can be represented by 17.35x &gt; 624.60?</li> <li>F A waitress had received a \$17.35 tip. This brought her total in tips to more than \$624.60. How much money in tips did she have before the \$17.35 tip?</li> <li>G Brianda made a deposit of \$17.35 into a savings account. This brought the total in her savings account to \$624.60. How much money did she have in this savings account before</li> </ul>	Darren earns \$17.35 per hour at his job. How many hours does he need to work in order to earn more than \$624.60?  Complete the inequality to represent the situation.  Move the correct answer to the box. Not all answers will be used.						
<ul> <li>6.9(C) 2018 item 26 [Representation and Solutions of Equations/Inequalities]  Which situation can be represented by 17.35x &gt; 624.60?</li> <li>F A waitress had received a \$17.35 tip. This brought her total in tips to more than \$624.60. How much money in tips did she have before the \$17.35 tip?</li> <li>G Brianda made a deposit of \$17.35 into a savings account. This brought the total in her savings account to \$624.60. How much money did she have in this savings account before she made the deposit?</li> <li>H A dozen tamales cost \$17.35 including tax. How many dozen tamales can a customer buy</li> </ul>	Darren earns \$17.35 per hour at his job. How many hours does he need to work in order to earn more than \$624.60?  Complete the inequality to represent the situation.  Move the correct answer to the box. Not all answers will be used.						



STAAR Released Item	Multiselect
<ul> <li>6.9(C) 2016 item 33 [Representation and Solutions of Equations/Inequalities]</li> <li>Which situation cannot be represented by the equation x + 10 = 45?</li> <li>A Marissa spent \$45 on a hat and a shirt. The hat cost \$10. What is x, the cost of the shirt in dollars?</li> <li>B Nicholas rode his bike 45 miles last week. He rode 10 miles on Tuesday and the rest of the miles on Wednesday. What is x, the number of miles Nicholas rode his bike on Wednesday?</li> <li>C Two players scored a total of 45 points in a game. One player scored 10 points. What is x, the number of points scored by the other player?</li> <li>D There are 45 students in a group. There are also 10 adults in the group. What is x, the total number of students and adults in the group?</li> </ul>	<ul> <li>Select THREE situations that can be represented by the equation x + 10 = 45.</li> <li>Marissa spent \$45 on a hat and a shirt. The hat cost \$10. What is x, the cost of the shirt in dollars?</li> <li>Nicholas rode his bike 45 miles last week. He rode 10 miles on Tuesday and the rest of the miles on Wednesday. What is x, the number of miles Nicholas rode his bike on Wednesday?</li> <li>Two players scored a total of 45 points in a game. One player scored 10 points. What is x, the number of points scored by the other player?</li> <li>There are 45 students in a group. There are also 10 adults in the group. What is x, the total number of students and adults in the group?</li> </ul>
STAAR Released Item  6.10(A) 2019 item 17 [Representation and Solutions of Equations/Inequalities]	Equation Editor/Text Entry  Ms. Gallegos burns 236 calories riding her bike each hour. She wants to burn more than 590 calories riding her bike at the same rate.
Ms. Gallegos burns 236 calories riding her bike each hour. She wants to burn more than 590 calories riding her bike at the same rate.  Which inequality represents all possible values for $t$ , the number of hours Ms. Gallegos must ride her bike to burn more than 590 calories?	Write an inequality that represents all possible values for t, the number of hours Ms. Gallegos must ride her bike to burn more than 590 calories.  Enter your answer in the space provided.
<b>A</b> $t > 2.5$ <b>B</b> $t < 2.5$ <b>C</b> $t > 0.4$ <b>D</b> $t < 0.4$	1       2       3         4       5       6       +       -       •       ÷         7       8       9       <       ≤       =       ≥       >         0       □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□



STAAR Released Item	Multiselect
Which inequality is true if $p=3.4$ ?	Select <b>TWO</b> inequalities that is true if p = 3.4.
<b>F</b> $3p < 10.2$	$\Box 3p < 10.2$
<b>G</b> $13.6 \le 3.9p$	□13.6 ≤ 3.9 <i>p</i>
<b>H</b> $5p > 17.1$	$\Box 5p > 17.1$
<b>J</b> $8.5 \ge 2.5p$	$\Box$ 8.5 $\geq$ 2.5 $p$
STAAR Released Item	Equation Editor/Text Entry
Example 2017 item 35 appresentation and Solutions of Equations/Inequalities]  Which model shows two equal expressions when the value of $x$ is 4?  A $x$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	

Grade 6

Data Analysis

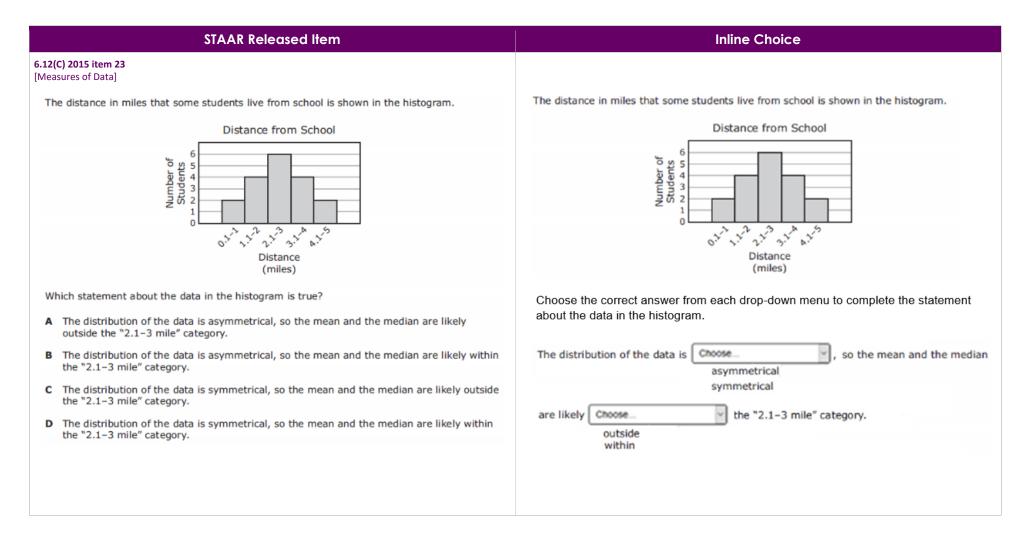
## Grade 6: Data Analysis STAAR 2.0 Transitional Items



STAAR Released Item **Drag and Drop** 6.12(C) 2016 item 34 [Measures of Data] The dot plot shows the number of chess games won by each of the 20 students in a The dot plot shows the number of chess games won by each of the 20 students in a competition. competition. Number of Chess Games Won Number of Chess Games Won Complete the statement about the data. Which statement about the data is true? Move the correct answer to each box. Answers may be used more than once. **F** The median is 4, and the interquartile range is 10. **G** The median is 4, and the interquartile range is 5. , and the interquartile range is The median is **H** The median is 5, and the interquartile range is 10. **J** The median is 5, and the interquartile range is 5.

## Grade 6: Data Analysis STAAR 2.0 Transitional Items







#### STAAR Released Item Hot Spot

#### 6.12(D) 2019 item 18

[Measures of Data]

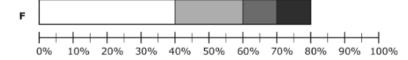
On Saturday Kai gave his guinea pig 80 grams of food. The table shows the amount of each type of food he gave to the guinea pig.

Guinea Pig Food

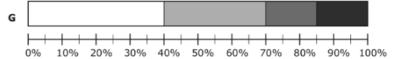
Type of Food	Amount of Food (grams)	Key for Bar Graph
Hay	40	
Alfalfa pellets	20	
Tomatoes	10	
Lettuce	10	

Which percentage bar graph best represents the data?

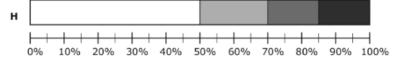
Guinea Pig Food



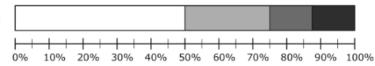
Guinea Pig Food



Guinea Pig Food



Guinea Pig Food



On Saturday Kai gave his guinea pig 80 grams of food. The table shows the amount of each type of food he gave to the guinea pig.

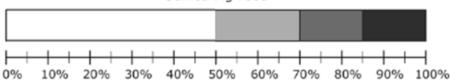
Guinea Pig Food

Type of Food	Amount of Food (grams)	Key for Bar Graph
Hay	40	
Alfalfa pellets	20	
Tomatoes	10	
Lettuce	10	

Which bars in the percentage bar graph correctly represent the data?

Select **TWO** correct answers.

Guinea Pig Food





#### STAAR Released Item Multiselect

6.12(D) 2019 item 28

[Measures of Data]

Each child in a group was asked to choose a single favorite type of cereal. The table shows the number of children who chose each type of cereal as a favorite.

Cereal

Type of Cereal	Number of Children
Oatmeal	15
Grits	10
Wheat porridge	2
Cold cereal	20
Other	3

Which statement is NOT supported by the data in the table?

- F More than 5% of the children chose "other" as the favorite type of cereal.
- **G** Oatmeal is the favorite type of cereal for 15% of the children.
- **H** Cold cereal is associated with the mode for the favorite type of cereal.
- **J** Grits is the favorite type of cereal for 20% of the children.

Each child in a group was asked to choose a single favorite type of cereal. The table shows the number of children who chose each type of cereal as a favorite.

Cereal

Type of Cereal	Number of Children
Oatmeal	15
Grits	10
Wheat porridge	2
Cold cereal	20
Other	3

Which statements are supported by the data in the table?

Select THREE correct answers.

- ☐ More than 5% of the children chose "other" as the favorite type of cereal.
- □ Oatmeal is the favorite type of cereal for 15% of the children.
- □ Cold cereal is associated with the mode for the favorite type of cereal.
- ☐ Grits is the favorite type of cereal for 20% of the children.



#### STAAR Released Item Drag and Drop

6.3(D) 2021 item 25

[All Operations with Integers]

Shemar bought a bag of marbles. He took the marbles out of the bag one at a time. He recorded the color of each marble in this tally chart.

#### Marbles

Color	Number of Marbles
Black	****
Yellow	###
Green	114 HH III
Red	₩.
White	144 III

In which table do the percentages represent the relative frequency of these marble colors

#### Marbles

Color	Percentage of All Marbles
Black	15%
Yellov	v 10%
Green	12%
Red	5%
White	8%

Α

В

#### Marbles

Color	Percentage of All Marbles
Black	15%
Yellow	25%
Green	37%
Red	42%
White	50%

#### Marbles

	Color	Percentage of All Marbles
С	Black	10%
	Yellow	16%
	Green	20%
	Red	24%
	White	30%

#### Marbles

	Color	Percentage of All Marbles
0	Black	30%
	Yellow	20%
	Green	24%
	Red	10%
	White	16%

Shemar bought a bag of marbles. He took the marbles out of the bag one at a time. He recorded the color of each marble in this tally chart.

#### Marbles

Color	Number of Marbles
Black	жжж
Yellow	жж
Green	пжж
Red	₩.
White	III ##

Complete the table to represent the relative frequency of these marble colors in percentages.

Move the correct answer to each box. Not all answers will be used.

#### Marbles

Color	Percentage of All Marbles
Black	30%
Yellow	
Green	24%
Red	10%
White	

8%

15%

16%

20%

25%