ZOOM Virtual Meeting Norms

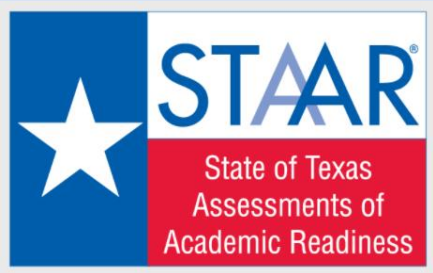
- Workshop #158246 ALL HANDOUTS are uploaded
- Remote Check In – TRSM6 (case sensitive)
- Check your audio and video.
- Keep microphone muted to minimize distraction.
- Questions can be asked in the ZOOM Chat at any point.

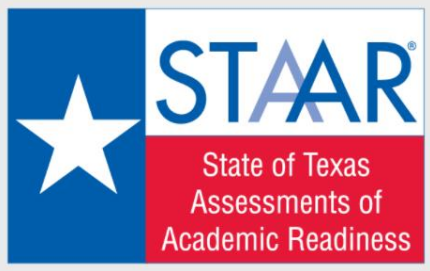
TRS Sixth Six Weeks Planning Session

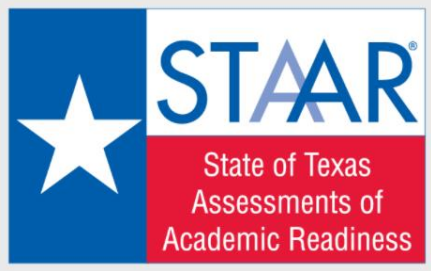
STAAR Focus

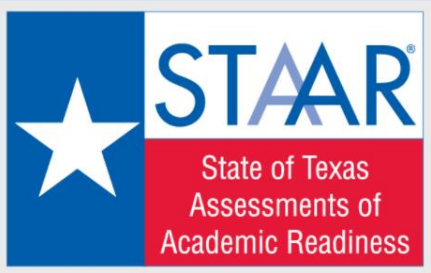
March 23, 2021

6th Gr. TRS Math Inst. Planning
6th Six Weeks – STAAR
Workshop # 158246
2:30 PM -4:30 PM









Learning Loss Research

Key Findings and Takeaways

Learning Loss

- Did not see blanket declines as forecasted.
- Still a lack of current data on most vulnerable student populations.
- Schools need local data to get students on track.
- Schools traditionally balance inequities.
- Differing summer experiences can make an impact.

Gaps

- Gaps increase in upper elementary and middle school.
- Gaps are greater in mathematics than reading.

Recommendations

- Academic content that complements curricular standards and is taught by at least one experienced, trained teacher per classroom
- Academic classes that are limited to 15 students, with at least two adults (one lead teacher and one teaching assistant, for example)
- Group learning that is complemented with individual support
- Fun and engaging activities that are used to teach concepts
- Hands-on activities that are used to teach concepts
- Concepts that are grounded in a real-world context

Note: Voluntary Summer Reading Programs did not work

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Today's Agenda:

Data Review

Instructional Gap Considerations

Mastering What's Essential

Item Analysis of Student Responses

STAAR Instructional Resources

What does the data say?

STAAR Longitudinal by SE
for Region 01

Source: Admin Year: 2019 Subject: Mathematics Demographic Group(s): All Students
Test Version(s): STAAR Language(s): English Calculation Option: Calculated average Retests: First Administrations

SE	Grade 07 2017	Grade 07 2018	Grade 07 2019
SE 7.1A - apply mathematics to problems arising in everyday life, society, and the workplace (P)			
SE 7.1B - use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution (P)			
SE 7.1C - select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems (P)			
SE 7.1D - communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate (P)			
SE 7.1E - create and use representations to organize, record, and communicate mathematical ideas (P)			
SE 7.1F - analyze mathematical relationships to connect and communicate mathematical ideas (P)			
SE 7.1G - display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication (P)			
SE 7.2A - extend previous knowledge of sets and subsets using a visual representation to describe relationships between sets of rational numbers (S)		74%	61%
SE 7.3A - add, subtract, multiply, and divide rational numbers fluently (S)	57%	61%	55%
SE 7.3B - apply and extend previous understandings of operations to solve problems using addition, subtraction, multiplication, and division of rational numbers (R)	48%	44%	65%
SE 7.4A - represent constant rates of change in mathematical and real-world problems given pictorial, tabular, verbal, numeric, graphical, and algebraic representations, including d = rt (R)	60%	71%	66%
SE 7.4B - calculate unit rates from rates in mathematical and real-world problems (S)	72%		52%
SE 7.4C - determine the constant of proportionality (k = y/x) within mathematical and real-world problems (S)		86%	56%
SE 7.4D - solve problems involving ratios, rates, and percents, including multi-step problems involving percent increase and percent decrease, and financial literacy problems (R)	52%	50%	57%
SE 7.4E - convert between measurement systems, including the use of proportions and the use of unit rates (S)	38%	70%	76%
SE 7.5A - generalize the critical attributes of similarity, including ratios within and between similar shapes (S)	40%	61%	65%
SE 7.5B - describe pi as the ratio of the circumference of a circle to its diameter (S)		62%	55%
SE 7.5C - solve mathematical and real-world problems involving similar shape and scale drawings (R)	65%	55%	50%
SE 7.6A - represent sample spaces for simple and compound events using lists and tree diagrams (S)		72%	

STAAR Longitudinal by SE
for Region 01

Source: Admin Year: 2019 Subject: Mathematics Demographic Group(s): All Students
Test Version(s): STAAR Language(s): English Calculation Option: Calculated average Retests: First Administrations

	Grade 07	Grade 07	Grade 07
SE 7.6C - make predictions and determine solutions using experimental data for simple and compound events (S)	38%		47%
SE 7.6D - make predictions and determine solutions using theoretical probability for simple and compound events (S)	46%		
SE 7.6E - find the probabilities of a simple event and its complement and describe the relationship between the two (S)			
SE 7.6G - solve problems using data represented in bar graphs, dot plots, and circle graphs, including part-to-whole and part-to-part comparisons and equivalents (R)	51%	53%	43%
SE 7.6H - solve problems using qualitative and quantitative predictions and comparisons from simple experiments (R)	62%	53%	55%
SE 7.6I - determine experimental and theoretical probabilities related to simple and compound events using data and sample spaces (R)	45%	54%	62%
SE 7.7A - represent linear relationships using verbal descriptions, tables, graphs, and equations that simplify to the form y = mx + b (R)	64%	59%	61%
SE 7.9A - solve problems involving the volume of rectangular prisms, triangular prisms, rectangular pyramids, and triangular pyramids (R)	42%	56%	67%
SE 7.9B - determine the circumference and area of circles (R)	52%	59%	66%
SE 7.9C - determine the area of composite figures containing combinations of rectangles, squares, parallelograms, trapezoids, triangles, semicircles, and quarter circles (R)	51%	45%	38%
SE 7.9D - solve problems involving the lateral and total surface area of a rectangular prism, rectangular pyramid, triangular prism, and triangular pyramid by determining the area of the shape's net (S)	44%		45%
SE 7.10A - write one-variable, two-step equations and inequalities to represent constraints or conditions within problems (S)	51%		
SE 7.10B - represent solutions for one-variable, two-step equations and inequalities on number lines (S)		43%	54%
SE 7.10C - write a corresponding real-world problem given a one-variable, two-step equation or inequality (S)	50%	45%	
SE 7.11A - model and solve one-variable, two-step equations and inequalities (R)	57%	52%	59%
SE 7.11B - determine if the given value(s) make(s) one-variable, two-step equations and inequalities true (S)	64%	38%	33%
SE 7.11C - write and solve equations using geometry concepts, including the sum of the angles in a triangle, and angle relationships (S)	39%	40%	
SE 7.12A - compare two groups of numeric data using comparative dot plots or box plots by comparing their shapes, centers, and spreads (R)	61%	56%	59%
SE 7.12B - use data from a random sample to make inferences about a population (S)		46%	79%

STAAR Longitudinal by SE
for Region 01

Source: Admin Year: 2019 Subject: Mathematics Demographic Group(s): All Students
Test Version(s): STAAR Language(s): English Calculation Option: Calculated average Retests: First Administrations

SE	Grade 06 2017	Grade 06 2018	Grade 06 2019
SE 6.1A - apply mathematics to problems arising in everyday life, society, and the workplace (P)			
SE 6.1B - use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution (P)			
SE 6.1C - select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems (P)			
SE 6.1D - communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate (P)			
SE 6.1E - create and use representations to organize, record, and communicate mathematical ideas (P)			
SE 6.1F - analyze mathematical relationships to connect and communicate mathematical ideas (P)			
SE 6.1G - display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication (P)			
SE 6.2A - classify whole numbers, integers, and rational numbers using a visual representation such as a Venn diagram to describe relationships between sets of numbers (S)		59%	75%
SE 6.2B - identify a number, its opposite, and its absolute value (S)		64%	22%
SE 6.2C - locate, compare, and order integers and rational numbers using a number line (S)	66%		36%
SE 6.2D - order a set of rational numbers arising from mathematical and real-world contexts (R)	59%	48%	63%
SE 6.2E - extend representations for division to include fraction notation such as a/b represents the same number as a ˜ b where b ? 0 (S)	47%		
SE 6.3A - recognize that dividing by a rational number and multiplying by its reciprocal result in equivalent values (S)			
SE 6.3B - determine, with and without computation, whether a quantity is increased or decreased when multiplied by a fraction, including values greater than or less than one (S)	52%		
SE 6.3C - represent integer operations with concrete models and connect the actions with the models to standardized algorithms (S)		66%	
SE 6.3D - add, subtract, multiply, and divide integers fluently (R)	50%	62%	73%
SE 6.3E - multiply and divide positive rational numbers fluently (R)	62%	64%	60%
SE 6.4A - compare two rules verbally, numerically, graphically, and symbolically in the form of y = ax or y = x + a in order to differentiate between additive and multiplicative relationships (S)			69%
SE 6.4B - apply qualitative and quantitative reasoning to solve prediction and comparison of real-world problems involving ratios and rates (R)	45%	54%	37%

STAAR Longitudinal by SE
for Region 01

Source: Admin Year: 2019 Subject: Mathematics Demographic Group(s): All Students
Test Version(s): STAAR Language(s): English Calculation Option: Calculated average Retests: First Administrations

	Grade 06	Grade 06	Grade 06
SE 6.4C - give examples of ratios as multiplicative comparisons of two quantities describing the same attribute (S)	49%		
SE 6.4D - give examples of rates as the comparison by division of two quantities having different attributes, including rates as quotients (S)			
SE 6.4E - represent ratios and percents with concrete models, fractions, and decimals (S)			
SE 6.4F - represent benchmark fractions and percents such as 1%, 10%, 25%, 33 1/3%, and multiples of these values using 10 by 10 grids, strip diagrams, number lines, and numbers (S)		47%	
SE 6.4G - generate equivalent forms of fractions, decimals, and percents using real-world problems, including problems that involve money (R)	55%	59%	71%
SE 6.4H - convert units within a measurement system, including the use of proportions and unit rates (R)	64%	58%	62%
SE 6.5A - represent mathematical and real-world problems involving ratios and rates using scale factors, tables, graphs, and proportions (S)	50%		
SE 6.5B - solve real-world problems to find the whole given a part and the percent, to find the part given the whole and the percent, and to find the percent given the part and the whole, including the use of concrete and pictorial models (R)	45%	48%	28%
SE 6.5C - use equivalent fractions, decimals, and percents to show equal parts of the same whole (S)			
SE 6.6A - identify independent and dependent quantities from tables and graphs (S)		37%	
SE 6.6B - write an equation that represents the relationship between independent and dependent quantities from a table (S)			43%
SE 6.6C - represent a given situation using verbal descriptions, tables, graphs, and equations in the form y = kx or y = x + b (R)	51%	56%	67%
SE 6.7A - generate equivalent numerical expressions using order of operations, including whole number exponents and prime factorization (R)	54%	58%	57%
SE 6.7B - distinguish between expressions and equations verbally, numerically, and algebraically (S)			
SE 6.7C - determine if two expressions are equivalent using concrete models, pictorial models, and algebraic representations (S)			
SE 6.7D - generate equivalent expressions using the properties of operations: inverse, identity, commutative, associative, and distributive properties (R)	47%	66%	52%
SE 6.8A - extend previous knowledge of triangles and their properties to include the sum of angles of a triangle, the relationship between the lengths of sides and measures of angles in a triangle, and determining when three lengths form a triangle (S)	44%	40%	26%
SE 6.8B - model area formulas for parallelograms, trapezoids, and triangles by decomposing and rearranging parts of these shapes (S)			

Digging Deeper into the Data

→	SE 6.6C - represent a given situation using verbal descriptions, tables, graphs, and equations in the form y = kx or y = x + b (R)	51%	56%	67%
→	SE 6.7A - generate equivalent numerical expressions using order of operations, including whole number exponents and prime factorization (R)	54%	58%	57%
	SE 6.7B - distinguish between expressions and equations verbally, numerically, and algebraically (S)			
	SE 6.7C - determine if two expressions are equivalent using concrete models, pictorial models, and algebraic representations (S)			
→	SE 6.7D - generate equivalent expressions using the properties of operations: inverse, identity, commutative, associative, and distributive properties (R)	47%	66%	52%

TEKS: 6.6C, 6.7A, 6.7D

How can we close some gaps?

Grade 7 Mathematics COVID-19 Gap Implementation Tool
Potential Gap Considerations for 2020-2021 School Year *(applicable standards only)*

Quick Key to Reading the Mathematics COVID-19 Gap Implementation Tool

Strikethrough(s)	Strikethrough(s) in the previous grade level **Last 9 Weeks Standards** column reflect the strikethrough(s) that appear in the previous grade level Unit IFD during the last 9 weeks. This strikethrough(s) indicates the part of the SE that was not included in the hyperlinked previous grade level unit. Strikethrough(s) in the current grade level **Aligned Standards** column reflect the strikethrough(s) that appear in the current grade level Unit IFD. This strikethrough(s) indicates the part of the SE that is not included in the current grade level unit where the gap is being considered. While the standards in each row of the table are vertically aligned, any strikethroughs are not necessarily vertically aligned.
Underlines	**No underline** indicates the standard was completely taught prior to the 4th nine weeks. **Underline** indicates the standard or part of the standard was not taught prior to the 4th nine weeks.
Xs	An X in a column **with** a previous grade level hyperlink indicates the current grade level unit in which all of the current grade level standards in the row occur and where the gap considerations from the previous grade level impact the current unit. An X in a column **without** a previous grade level hyperlink indicates where all or some of the current grade level standards in the row occur in the scope and sequence.
Hyperlinks	A hyperlink to the previous grade level Unit IFD along with the previous grade level standards allows for quick access to view the specificity of the previous grade level standard(s) that includes a potential gap.
Alternating Shading	Alternating white and gray shading allows for easy visualization of a change in unit number.

For complete instruction on how to read this tool, see the Mathematics COVID-19 Gap Implementation Tool Instructions.

Grade 7 Mathematics COVID-19 Gap Implementation Tool
Potential Gap Considerations for 2020-2021 School Year *(applicable standards only)*

		2020–2021 School Year Grade 7 Units Reflected on Year at a Glance (YAG)											
Grade 6 Last 9 Weeks Standards 2019-2020	**Grade 7 Aligned Standards 2020-2021**	**Unit 01**	**Unit 02**	**Unit 03**	**Unit 04**	**Unit 05**	**Unit 06**	**Unit 07**	**Unit 08**	**Unit 09**	**Unit 10**	**Unit 11**	**Unit 12**
6.8C Write equations that represent problems related to the area of rectangles, parallelograms, trapezoids, and triangles and volume of right rectangular prisms where dimensions are positive rational numbers. *Supporting Standard* **6.8D** Determine solutions for problems involving the area of rectangles, parallelograms, trapezoids, and triangles and volume of right rectangular prisms where dimensions are positive rational numbers. *Readiness Standard*	**7.9A** Solve problems involving the volume of rectangular prisms, triangular prisms, rectangular pyramids, and triangular pyramids. *Readiness Standard* **7.9D** Solve problems involving the lateral and total surface area of a rectangular prism, rectangular pyramid, triangular prism, and triangular pyramid by determining the area of the shape's net. *Supporting Standard*								X G6U13 6.8C 6.8D				X
Considerations: Although students may have been taught 6.8C and 6.8D, they may not have had the opportunity to solidify the foundational understandings to prepare them for 7.9A and 7.9D. Grade 7 teachers should be prepared to: • Pre-assess students' understanding of problems involving volume of a right rectangular prism(s) prior to introducing problems involving volume of triangular prisms, rectangular pyramids, and triangular pyramids. • Pre-assess students' understanding of problems involving area of a two-dimensional figure(s) prior to introducing problems involving lateral and total surface area of a rectangular prism, rectangular pyramid, triangular prism, and triangular pyramid by determining the area of the shape's net.													
District notes:													

Refine your results

Grade 6

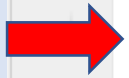
Mathematics

Search

Add Selected Components to My Favorites

- Vertical Alignment
- Enhanced TEKS Clarification
- Year at a Glance
- TEKS Verification
- Resources
- Instructional Focus Document

- Vertical Alignment
- Enhanced TEKS Clarification
- Year at a Glance
- TEKS Verification
- Resources



Mathematics and Matemáticas TVD Categories	Add to My Favorites
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Mathematics Grade 6 STAAR Analysis Resources	Add to My Favorites

Grade 6 Mathematics COVID-19 Gap Implementation Tool
Potential Gap Considerations for 2020-2021 School Year *(applicable standards only)*

Quick Key to Reading the Mathematics COVID-19 Gap Implementation Tool

Strikethrough(s)	Strikethrough(s) in the previous grade level **Last 9 Weeks Standards** column reflect the strikethrough(s) that appear in the previous grade level Unit IFD during the last 9 weeks. This strikethrough(s) indicates the part of the SE that was not included in the hyperlinked previous grade level unit. Strikethrough(s) in the current grade level **Aligned Standards** column reflect the strikethrough(s) that appear in the current grade level Unit IFD. This strikethrough(s) indicates the part of the SE that is not included in the current grade level unit where the gap is being considered. While the standards in each row of the table are vertically aligned, any strikethroughs are not necessarily vertically aligned.
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Xs	An X in a column **with** a previous grade level hyperlink indicates the current grade level unit in which all of the current grade level standards in the row occur and where the gap considerations from the previous grade level impact the current unit. An X in a column **without** a previous grade level hyperlink indicates where all or some of the current grade level standards in the row occur in the scope and sequence.
Hyperlinks	A hyperlink to the previous grade level Unit IFD along with the previous grade level standards allows for quick access to view the specificity of the previous grade level standard(s) that includes a potential gap.
Alternating Shading	Alternating white and gray shading allows for easy visualization of a change in unit number.

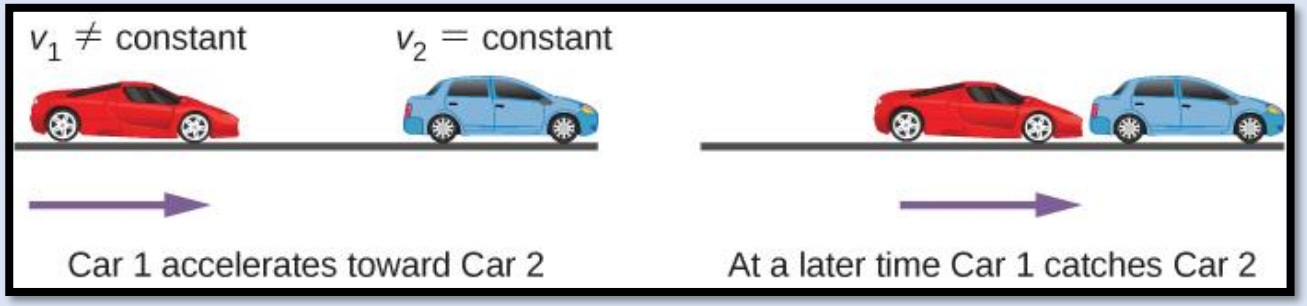
Grade 5 Last 9 Weeks Standards 2019-2020	Grade 6 Aligned Standards 2020-2021	2020–2021 School Year Grade 6 Units Reflected on Year at a Glance (YAG)												
		Unit 01	Unit 02	Unit 03	Unit 04	Unit 05	Unit 06	Unit 07	Unit 08	Unit 09	Unit 10	Unit 11	Unit 12	Unit 13
• Pre-assess students' understanding of division of decimals involving quotients to the hundredths, up to four-digit dividends and two-digit whole number divisors, prior to introducing division of decimals with quotients beyond the hundredths, dividends beyond four-digits, and divisors beyond two-digits, including decimal divisors. • Pre-assess students' understanding of multiplication of a whole number and a fraction prior to introducing multiplication of a fraction by a fraction. • Pre-assess students' understanding of division of a unit fraction by a whole number and a whole number by a unit fraction prior to introducing division of a fraction by a fraction.														
District notes:														
There are no additional COVID-19 gap considerations from the previous grade level for this unit.					X									
District notes:														
There are no additional COVID-19 gap considerations from the previous grade level for this unit.						X								
District notes:														
5.4F Simplify numerical expressions that do not involve exponents, including up to two levels of grouping. *Readiness Standard*	**6.7A** Generate equivalent numerical expressions using order of operations, including whole number exponents and prime factorization. *Readiness Standard*						X G5U11 5.4F G5U12 5.4F G5U13 5.4F							
Considerations: Although students may have been taught 5.4F, they may not have had the opportunity to solidify the foundational understandings to prepare them for 6.7A. Grade 6 teachers should be prepared to: • Pre-assess students' understanding of simplifying numerical expressions that do not involve exponents, including up to two levels of grouping, prior to introducing simplifying numerical expressions that include whole number exponents and more than two levels of grouping.														
District notes:														

2020–2021 School Year Grade 6 Units Reflected on Year at a Glance (YAG)

Grade 5 Last 9 Weeks Standards 2019-2020	Grade 6 Aligned Standards 2020-2021	Unit 01	Unit 02	Unit 03	Unit 04	Unit 05	Unit 06	Unit 07	Unit 08	Unit 09	Unit 10	Unit 11	Unit 12	Unit 13
• Pre-assess students' understanding of division of decimals involving quotients to the hundredths, up to four-digit dividends and two-digit whole number divisors, prior to introducing division of decimals with quotients beyond the hundredths, dividends beyond four-digits, and divisors beyond two-digits, including decimal divisors. • Pre-assess students' understanding of multiplication of a whole number and a fraction prior to introducing multiplication of a fraction by a fraction. • Pre-assess students' understanding of division of a unit fraction by a whole number and a whole number by a unit fraction prior to introducing division of a fraction by a fraction.														
District notes:														
There are no additional COVID-19 gap considerations from the previous grade level for this unit.					X									
District notes:														
There are no additional COVID-19 gap considerations from the previous grade level for this unit.						X								
District notes:														
5.4F Simplify numerical expressions that do not involve exponents, including up to two levels of grouping. *Readiness Standard*	**6.7A** Generate equivalent numerical expressions using order of operations, including whole number exponents and prime factorization. *Readiness Standard*						X G5U11 5.4F G5U12 5.4F G5U13 5.4F							
Considerations: Although students may have been taught 5.4F, they may not have had the opportunity to solidify the foundational understandings to prepare them for 6.7A. Grade 6 teachers should be prepared to: • Pre-assess students' understanding of simplifying numerical expressions that do not involve exponents, including up to two levels of grouping, prior to introducing simplifying numerical expressions that include whole number exponents and more than two levels of grouping.														
District notes:														

Guidance from the Agency

Accelerating Instruction **Covering all standarrds**



Leveraging the Standards

Mastering what is essential

Heat Map

Targeted Student Support for Maximizing Results

6th STAAR Math Student Profile

Critical

Important

As time Permits

Student Name: _____ **Period:** _____

Cate.	TEKS	R or S	Student Expectation	Basic	Basic	Interm	Interm	Interm	Adv.	Adv.
1	6.2A	S	Classify whole numbers, integers, and rational numbers using a visual representation such as a Venn diagram to describe relationships between sets of numbers							
1	6.2B	S	Identify a number, its opposite, and its absolute value							
1	6.2C	S	Locate, compare, and order integers and rational numbers using a number line							
1	6.2D	R	Order a set of rational numbers arising from mathematical and real-world contexts							
1	6.2E	S	Extend representations for division to include fraction notation such as a/b represents the same number as $a \div b$ where $b \neq 0$.							
1	6.4C	S	Give examples of ratios as multiplicative comparisons of two quantities describing the same attribute							
1	6.4D	S	Give examples of rates as the comparison by division of two quantities having different attributes, including rates as quotients							

Study the Heat Map: What implications are there for the red shaded standards?

Targeted Student Support for Maximizing Results

6th STAAR Math Student Profile

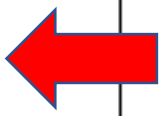
Student Name: _____ Period: _____

Critical

Important

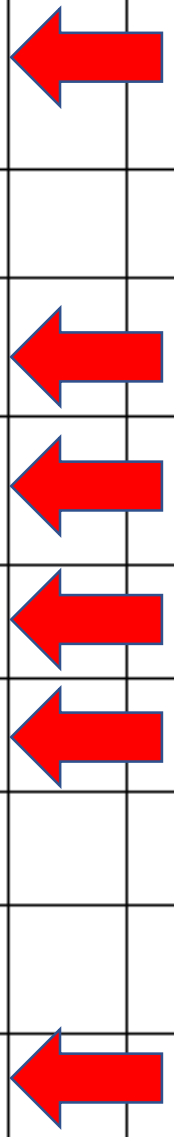
As time Permits

Cate.	TEKS	R or S	Student Expectation	Basic	Basic	Interm	Interm	Interm	Adv.	Adv.
1	6.2A	S	Classify whole numbers, integers, and rational numbers using a visual representation such as a Venn diagram to describe relationships between sets of numbers							
1	6.2B	S	Identify a number, its opposite, and its absolute value							
1	6.2C	S	Locate, compare, and order integers and rational numbers using a number line							
1	6.2D	R	Order a set of rational numbers arising from mathematical and real-world contexts							
1	6.2E	S	Extend representations for division to include fraction notation such as a/b represents the same number as $a \div b$ where $b \neq 0$.							
1	6.4C	S	Give examples of ratios as multiplicative comparisons of two quantities describing the same attribute							
1	6.4D	S	Give examples of rates as the comparison by division of two quantities having different attributes, including rates as quotients							



Heat Map

1	6.4G	R	Generate equivalent forms of fractions, decimals, and percents using real-world problems, including problems that involve money							
1	6.5C	S	Use equivalent fractions, decimals, and percents to show equal parts of the same whole							
1	6.7A	R	Generate equivalent numerical expressions using order of operations, including whole number exponents and prime factorization							
1	6.7B	S	Distinguish between expressions and equations verbally, numerically, and algebraically							
1	6.7C	S	Determine if two expressions are equivalent using concrete models, pictorial models, and algebraic representations							
1	6.7D	R	Generate equivalent expressions using the properties of operations: inverse, identity, commutative, associative, and distributive properties							
2	6.3A	S	Recognize that dividing by a rational number and multiplying by its reciprocal result in equivalent values							
2	6.3B	S	Determine, with and without computation, whether a quantity is increased or decreased when multiplied by a fraction, including values greater than or less than one							
2	6.3C	S	Represent integer operations with concrete models and connect the actions with the models to standardized algorithms							



Heat Map

Digging Deeper into the Data

→	SE 6.6C - represent a given situation using verbal descriptions, tables, graphs, and equations in the form y = kx or y = x + b (R)	51%	56%	67%
→	SE 6.7A - generate equivalent numerical expressions using order of operations, including whole number exponents and prime factorization (R)	54%	58%	57%
	SE 6.7B - distinguish between expressions and equations verbally, numerically, and algebraically (S)			
	SE 6.7C - determine if two expressions are equivalent using concrete models, pictorial models, and algebraic representations (S)			
→	SE 6.7D - generate equivalent expressions using the properties of operations: inverse, identity, commutative, associative, and distributive properties (R)	47%	66%	52%

TEKS: 6.6C, 6.7A, 6.7D

STAAR® Test	Grade 6 M	Item #	11	Content SE	6.6C	SE Type	Readiness
Administration	Spring 2019	Reporting Category	2	Process SE	Not Reported	Unit (IFD)	08, 13

TEKS:6.6C

11 Which situation can be represented by the equation $y = 12x$?

A Victoria went to school for x years.
This is 12 times y, the number of years her brother went to school.

B Victoria spent x dollars to buy a gift for her brother.
She gave the cashier y dollars and received $12 in change.

C Victoria has y dollars.
This amount is 12 times x, the amount of money in dollars Victoria's brother has.

D Victoria is y years old.
Her age is 12 years greater than x, her brother's age in years.

Elements Considered in TEKS Resource System™ Item Analysis					
	Texas Education Agency Rationale	OPTIONS ANALYSIS			
		State			
A/F	The student chose a situation represented by the equation $x = 12y$ instead of $y = 12x$. The student needs to focus on understanding how to identify situations that can be represented by equations in the form $y = kx$.	9			
B/G	The student chose a situation represented by the equation $x = y - 12$ instead of $y = 12x$. The student needs to focus on understanding how to identify situations that can be represented by equations in the form $y = kx$.	12			
C/H	Correct – To determine which situation can be represented by the equation $y = 12x$, the student should have first recognized that the variables (symbols or letters used to represent unknown numbers) represent the amounts of money each person in the situation has. The variable y represents the amount of money Victoria has, and the variable x represents the amount of money Victoria's brother has. The student should have determined that "12 times x" means that Victoria's amount of money (y) is equal to 12 times the amount of money her brother has (x) and can be represented as $12x$. As a result, the student should have determined that the equation representing this situation is $y = 12x$.	65*			
D/J	The student chose a situation represented by the equation $y = 12 + x$ instead of $y = 12x$. The student needs to focus on understanding how to identify situations that can be represented by equations in the form $y = kx$.	13			

TEKS:6.6C

Stimulus Type	Algebraic Representation	Revised Bloom's	Understand	DOK	Level 2

Content KS Standard	***6.6 Expressions, equations, and relationships. The student applies mathematical process standards to use multiple representations to describe algebraic relationships. The student is expected to:***
Content SE Standard	6.6C Represent a given situation using verbal descriptions, tables, graphs, and equations in the form $y = kx$ or $y = x + b$.
Content SE Breakout	6.6C Represent a given situation using verbal descriptions and equations in the form $y = kx$ ~~or $y = x + b$~~.

TEKS Resource System™ Notes	• Vocabulary – multiplicative equation ($y = kx$); multiplicative relationship; variable • Recognize an multiplicative relationship in an equation • Recogniz[illegible] multiplicative relationship in a verbal description of a real-world problem situation • Understan[illegible]w the placement of variables in an equation affects their meaning

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11/01/2019

Source: STAAR® Released Items Texas Education Agency

Possible Learning Objectives (Goals)

Breakout Session (5 Mins.)

TEKS:6.7A

STAAR® Test	Grade 6 M	Item #	35	Content SE	6.7A	SE Type	Readiness
Administration	Spring 2019	Reporting Category	1	Process SE	Not Reported	Unit (IFD)	06

35 Which expression is equivalent to $4(3 + 5) - 3 \cdot 9^2$?

Your turn

A $14 \cdot 81$

B $17 - (27)^2$

C $12 + 20 - 54$

D $4(8) - 3 \cdot 81$

Elements Considered in TEKS Resource System™ Item Analysis					
	Texas Education Agency Rationale	OPTIONS ANALYSIS			
		State			
A/F	The student likely evaluated the expression from left to right without paying attention to the parentheses and without using the correct order of operations $(4(3) + 5 – 3 • 9^2 = 12 + 5 – 3 • 9^2 = 17 – 3 • 9^2 = 14 • 9^2$, resulting in 14 • 81). The student needs to focus on using the correct order of operations to determine equivalent expressions.	5			
B/G	The student likely evaluated the expression without paying attention to the parentheses and without using the correct order of operations $(4(3) + 5 – (3 • 9^2) = 12 + 5 – (3 • 9^2) = 17 – (3 • 9)^2$, resulting in $17 – (27)^2$). The student needs to focus on using the correct order of operations to determine equivalent expressions.	8			
C/H	The student likely evaluated the expression without using the correct order of operations and multiplied 9 by 2 instead of squaring 9 $(4(3 + 5) – (3 • 9)^2 = 4(3 + 5) – (27)^2 = 4(3 + 5) – (27) • 2 = 4(3 + 5) – 54 = 4(3) + 4(5) – 54$, resulting in 12 + 20 – 54). The student needs to focus on using the correct order of operations to determine equivalent expressions.	11			
D/J	Correct – To determine which expression is equivalent to $4(3 + 5) – 3 • 9^2$, the student should have used the order of operations, or PEMDAS. The student should have completed the operations in this order: 1. Operations contained in Parentheses or brackets, 2. Exponents (numbers raised to a power), 3. Multiplication/Division from left to right, and 4. Addition/Subtraction from left to right. First the student should have determined that $9^2 = 81$. Then the student should have determined that (3 + 5) = 8, resulting in the expression 4(8) – 3 • 81.	75*			

Stimulus Type	Numerical Representation	Revised Bloom's	Apply	DOK	Level 1

Content KS Standard	***6.7 Expressions, equations, and relationships. The student applies mathematical process standards to develop concepts of expressions and equations. The student is expected to:***
Content SE Standard	6.7A Generate equivalent numerical expressions using order of operations, including whole number exponents and prime factorization.
Content SE Breakout	6.7A Generate equivalent numerical expressions using order of operations, including whole number exponents.

TEKS Resource System™ Notes	• Vocabulary – equivalent; expression; order of operations • Understand the order of operations • Understand parentheses and brackets are grouping symbols that indicate the part of the expression that should be simplified first • Generate an expression equivalent to a given expression using the order of operations Grade Level Note(s):

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Source: STAAR® Released Items Texas Education Agency

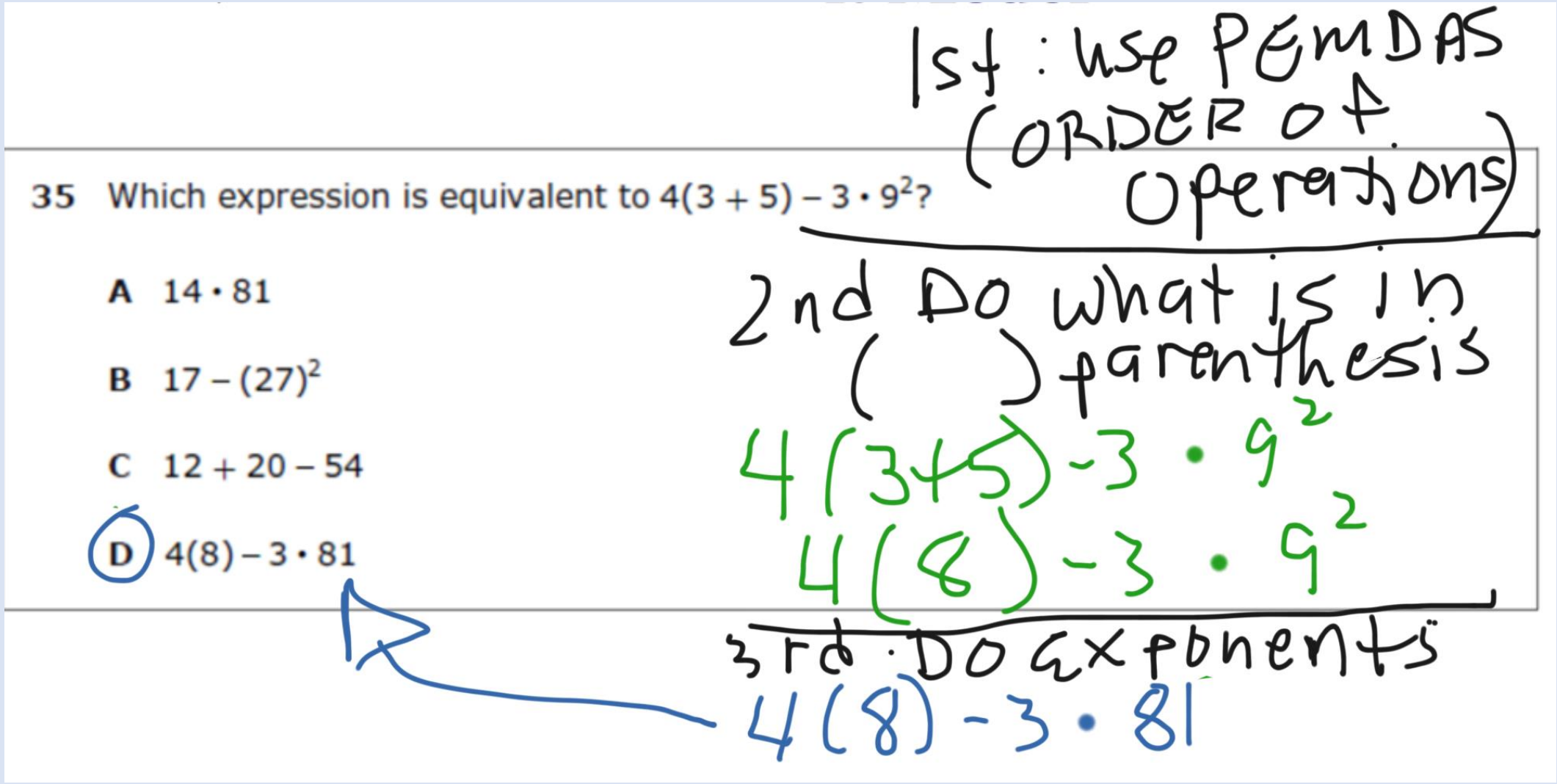
STAAR® Test	Grade 6 M	Item #	35	Content SE	6.7A	SE Type	Readiness
Administration	Spring 2019	Reporting Category	1	Process SE	Not Reported	Unit (IFD)	06

	• Grade 5 described the meaning of parentheses and brackets in a numeric expression. • Grade 5 simplified numerical expressions that do not involve exponents, including up to two levels of grouping. • Algebra I will add and subtract polynomials of degree one and degree two. • Algebra I will multiply polynomials of degree one and degree two. • Various mathematical process standards will be applied to this student expectation as appropriate.

Share Out!

See it, Name It, Do it Model

Strong Exemplar



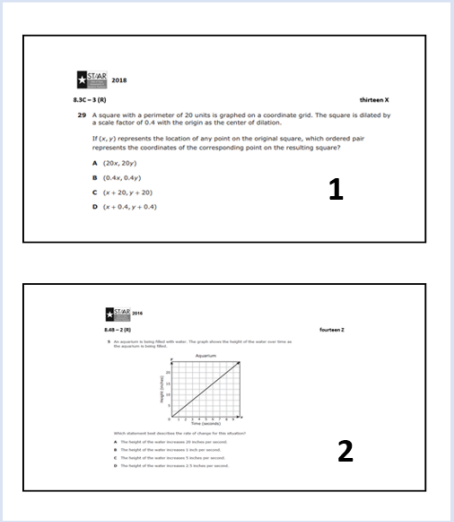
STAAR Instructional Resources

STAAR Grade 6 Mathematics Assessment Eligible TEKS

1. Numerical Representations and Relationships (10 questions)		
S	6.2A	Classify whole numbers, integers, and rational numbers using a visual representation such as a Venn diagram to describe relationships between sets of numbers.
S	6.2B	Identify a number, its opposite, and its absolute value.
S	6.2C	Locate, compare, and order integers and rational numbers using a number line.
R	6.2D	Order a set of rational numbers arising from mathematical and real-world contexts.
S	6.2E	Extend representations for division to include fraction notation such as a/b represents the same number as $a \div b$ where $b \neq 0$.
S	6.4C	Give examples of ratios as multiplicative comparisons of two quantities describing the same attribute.
S	6.4D	Give examples of rates as the comparison by division of two quantities having different attributes, including rates as quotients.
S	6.4E	Represent ratios and percents with concrete models, fractions, and decimals.
S	6.4F	Represent benchmark fractions and percents such as 1%, 10%, 25%, 33 1/3%, and multiples of these values using 10 by 10 grids, strip diagrams, number lines, and numbers.
R	6.4G	Generate equivalent forms of fractions, decimals, and percents using real-world problems, including problems that involve money.
S	6.5C	Use equivalent fractions, decimals, and percents to show equal parts of the same whole.
R	6.7A	Generate equivalent numerical expressions using order of operations, including whole number exponents and prime factorization.
S	6.7B	Distinguish between expressions and equations verbally, numerically, and algebraically.
S	6.7C	Determine if two expressions are equivalent using concrete models, pictorial models, and algebraic representations.
R	6.7D	Generate equivalent expressions using the properties of operations: inverse, identity, commutative, associative, and distributive properties.

2. Computations and Algebraic Relationships (15 questions)		
S	6.3A	Recognize that dividing by a rational number and multiplying by its reciprocal result in equivalent values.
S	6.3B	Determine, with and without computation, whether a quantity is increased or decreased when multiplied by a fraction, including values greater than or less than one.
S	6.3C	Represent integer operations with concrete models and connect the actions with the models to standardized algorithms.
R	6.3D	Add, subtract, multiply, and divide integers fluently.
R	6.3E	Multiply and divide positive rational numbers fluently.
S	6.4A	Compare two rules verbally, numerically, graphically, and symbolically in the form of $y = ax$ or $y = x + a$ in order to differentiate between additive and multiplicative relationships.
R	6.4B	Apply qualitative and quantitative reasoning to solve prediction and comparison of real-world problems involving ratios and rates.
S	6.5A	Represent mathematical and real-world problems involving ratios and rates using scale factors, tables, graphs, and proportions.
R	6.5B	Solve real-world problems to find the whole given a part and the percent, to find the part given the whole and the percent, and to find the percent given the part and the whole, including the use of concrete and pictorial models.
S	6.6A	Identify independent and dependent quantities from tables and graphs.
S	6.6B	Write an equation that represents the relationship between independent and dependent quantities from a table.
R	6.6C	Represent a given situation using verbal descriptions, tables, graphs, and equations in the form $y = kx$ or $y = x + b$.
S	6.9A	Write one-variable, one-step equations and inequalities to represent constraints or conditions within problems.
S	6.9B	Represent solutions for one-variable, one-step equations and inequalities on number lines.
S	6.9C	Write corresponding real-world problems given one-variable, one-step equations or inequalities.
R	6.10A	Model and solve one-variable, one-step equations and inequalities that represent problems, including geometric concepts.
S	6.10B	Determine if the given value(s) make(s) one-variable, one-step equations or inequalities true.

STAAR Items in A Box



STAAR
State of Texas Assessments of Academic Readiness

Select a test to take

- Summative Assessment
- Interim Assessment
- Practice
- Tutorials

STAAR Grade 6 Mathematics Assessment Eligible TEKS

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STAAR Grade 6 Mathematics Assessment Eligible TEKS

3. Geometry and Measurement (6 questions)		
R	6.4H	Convert units within a measurement system, including the use of proportions and unit rates.
S	6.8A	Extend previous knowledge of triangles and their properties to include the sum of angles of a triangle, the relationship between the lengths of sides and measures of angles in a triangle, and determining when three lengths form a triangle.
S	6.8B	Model area formulas for parallelograms, trapezoids, and triangles by decomposing and rearranging parts of these shapes.
S	6.8C	Write equations that represent problems related to the area of rectangles, parallelograms, trapezoids, and triangles and volume of right rectangular prisms where dimensions are positive rational numbers.
R	6.8D	Determine solutions for problems involving the area of rectangles, parallelograms, trapezoids, and triangles and volume of right rectangular prisms where dimensions are positive rational numbers.
R	6.11A	Graph points in all four quadrants using ordered pairs of rational numbers.

4. Data Analysis and Personal Financial Literacy (7 questions)		
S	6.12A	Represent numeric data graphically, including dot plots, stem-and-leaf plots, histograms, and box plots.
S	6.12B	Use the graphical representation of numeric data to describe the center, spread, and shape of the data distribution.
R	6.12C	Summarize numeric data with numerical summaries, including the mean and median (measures of center) and the range and interquartile range (IQR) (measures of spread), and use these summaries to describe the center, spread, and shape of the data distribution.
R	6.12D	Summarize categorical data with numerical and graphical summaries, including the mode, the percent of values in each category (relative frequency table), and the percent bar graph, and use these summaries to describe the data distribution.
R	6.13A	Interpret numeric data summarized in dot plots, stem-and-leaf plots, histograms, and box plots.
S	6.13B	Distinguish between situations that yield data with and without variability.
S	6.14A	Compare the features and costs of a checking account and a debit card offered by different local financial institutions.
S	6.14B	Distinguish between debit cards and credit cards.
S	6.14C	Balance a check register that includes deposits, withdrawals, and transfers.
S	6.14E	Describe the information in a credit report and how long it is retained.
S	6.14F	Describe the value of credit reports to borrowers and to lenders.
S	6.14G	Explain various methods to pay for college, including through savings, grants, scholarships, student loans, and work-study.
S	6.14H	Compare the annual salary of several occupations requiring various levels of post-secondary education or vocational training and calculate the effects of the different annual salaries on lifetime income.

Not Eligible for STAAR	
6.14D	Explain why it is important to establish a positive credit history.

Blueprint Summary			
	Total	STAAR	
Readiness		60%-65%	23 – 25
Supporting	35	35%-40%	5
Total Number of Questions on Test: 34 Multiple Choice; 4 Griddable; 38 Total			

STAAR Items in A Box

STAAR 2018

8.3C – 3 (R) **thirteen X**

29 A square with a perimeter of 20 units is graphed on a coordinate grid. The square is dilated by a scale factor of 0.4 with the origin as the center of dilation.

If (x, y) represents the location of any point on the original square, which ordered pair represents the coordinates of the corresponding point on the resulting square?

A $(20x, 20y)$

B $(0.4x, 0.4y)$

C $(x + 20, y + 20)$

D $(x + 0.4, y + 0.4)$

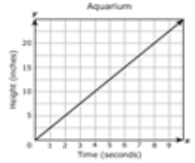
1

STAAR 2016

8.4B – 2 (R) **fourteen Z**

5 An aquarium is being filled with water. The graph shows the height of the water over time as the aquarium is being filled.

Aquarium



Which statement best describes the rate of change for this situation?

A The height of the water increases 20 inches per second.

B The height of the water increases 1 inch per second.

C The height of the water increases 5 inches per second.

D The height of the water increases 2.5 inches per second.

2

STAAR 2018

8.3C – 3 (R) **thirteen X**

29 A square with a perimeter of 20 units is graphed on a coordinate grid. The square is dilated by a scale factor of 0.4 with the origin as the center of dilation.

If (x, y) represents the location of any point on the original square, which ordered pair represents the coordinates of the corresponding point on the resulting square?

A $(20x, 20y)$

B $(0.4x, 0.4y)$

C $(x + 20, y + 20)$

D $(x + 0.4, y + 0.4)$

3

STAAR State of Texas Assessments of Academic Readiness 2016

6.2D – 1 (R)

three Y

15 The table shows the amount of time four students practiced the trumpet one day.

Fraction Mthd

Trumpet Practice Times

Name	Time (hours)
Cole	$1\frac{2}{3}$
Gus	$1\frac{1}{2}$
Ryan	$1\frac{1}{4}$
Jacob	$1\frac{7}{12}$

Answer to every problem is hidden in plain sight. Simply transpose the letters
ABCD = WXYZ = FGHJ

Which list shows the names of the students in order from the least amount of practice time to the greatest amount of practice time?

A Ryan, Jacob, Cole, Gus

B Cole, Jacob, Gus, Ryan

C Ryan, Gus, Jacob, Cole

D Gus, Ryan, Cole, Jacob

Correct answer is C = Y

STAAR State of Texas Assessments of Academic Readiness 2016

6.2D – 1 (R) **four X**

45 Students in Mrs. Guerro's class must complete at least 40 math problems for homework every week. The table shows the progress of four students on Wednesday.

Homework Progress

Student	Amount Completed
Katie	0.4
D'Angelo	$\frac{45}{40}$
Grace	100%
Jonah	$\frac{2}{3}$

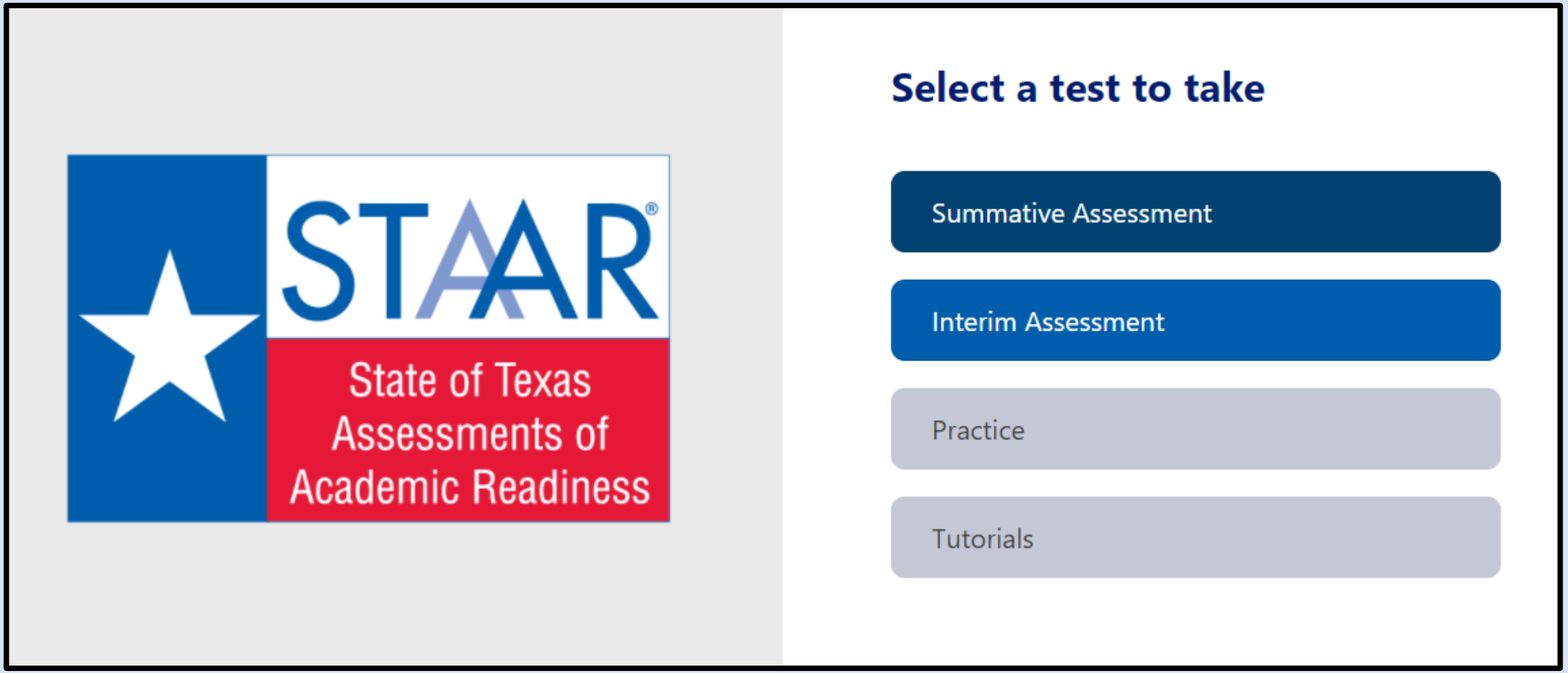
Which list shows the amounts of homework completed in order from greatest to least?

A 0.4, $\frac{2}{3}$, $\frac{45}{40}$, 100%

B $\frac{45}{40}$, 100%, $\frac{2}{3}$, 0.4

C 0.4, $\frac{2}{3}$, 100%, $\frac{45}{40}$

D $\frac{2}{3}$, 0.4, $\frac{45}{40}$, 100%



https://tx-tss.caltesting.org/inbrowser/

Key Components to Improving Instruction

Teachers need the following:

- ☑ Deep Content Knowledge
- ☑ Varied Assessment Practices
- ☑ Strong Classroom Management
- ☑ Effective Instructional Delivery
- ☑ Engaging Lessons

Commit to improve on 2 of these for next year

What other resources or support do you need from the ESC or your district?

Post in the CHAT Activity

Contact Information

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