MATH STAAR END GAME PLANNING

5TH GRADE

REPORTING CATEGORY 1

COMPUTATIONS AND ALGEBRAIC RELATIONSHIPS

5.2 **Numbers and operations**. The student applies mathematical process standards to represent, compare and order positive rational numbers and understand relationships as related to place value. The student is expected to:

A) Represent the value of the digit in decimals through the thousandths using expanded notation and numerals.

6 The mass in kilograms of an ice chest is shown in expanded notation.

$$(1 \times 10) + (3 \times 1) + (6 \times 0.1) + (1 \times 0.01)$$

What is this mass in kilograms, written as a numeral?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

Supporting Standard

Answer	State	Region	District		
A/F*	63%	57%			
B/G	37%	43%			
C/H	0%	0%			
D/J	0%	0%			
Grid: 13.61	63%	57%			

Vocabulary	Value, Digit, Decimal, Thousandths, Expanded Notation, Numeral

Vertical Alignment	4.2B Represent the value of the digit in whole numbers through 1,000,000,000 and decimals to the hundredths using expanded notation and numerals. *Readiness Standard*

Supporting Information	Represent includes using place value to read and write using numerals and expanded notation. The expanded notation for 3.94 can be represented as 3.94 = (3 × 1) + (9 × 0.1) + (4 × 0.01) or 3.94 = (3 × 1) + (9 × 1/10) + (4 × 1/100). The conversion between expanded notation, verbal representation, and numerals builds on the fourth grade skill. Expanded notation is written following the order of place value.

Allowable supports	

Misconceptions	

NOTES:

5.2 **Numbers and operations**. The student applies mathematical process standards to represent, compare and order positive rational numbers and understand relationships as related to place value. The student is expected to:

B) Compare and order two decimals to the thousandths and represent comparisons using the symbols decimals through the thousandths and represent comparisons using the symbols >, <, or =.

9 The table shows the times it took four runners to finish a race.

Race Times

Runner	Time (minutes)
W	20.3
X	19.795
Y	20.35
Z	19.8

Which comparison of these times is NOT correct?

A $20.3 < 20.35$

B $19.795 > 19.8$

C $19.8 < 20.3$

D $20.35 > 19.795$

Readiness Standard

Answer	State	Region	District		
A/F	6%	6%			
B/G*	77%	74%			
C/H	6%	7%			
D/J	11%	13%			

Vocabulary	Compare, Order, Decimals, Thousandths, Comparisons, >, <, =.

Vertical Alignment	4.2C Compare and order whole numbers to 1,000,000,000 and represent comparisons using the symbols >, <, or =. ***Supporting Standard*** 4.2F Compare and order decimals using concrete and visual models to the hundredths. ***Supporting Standard***

Supporting Information	Specificity regarding notation has been included with the inclusion of the symbols >, < or =. A set of decimals can be compared in pairs in the process of ordering decimals. Ordering can be greatest to least or least to greatest. It may or may not include symbols. Comparing, ordering, and representing comparisons of decimals in this grade level bridges the SEs in grades 4 and 6. In grade 4 [4(2)(C)], students compare and order whole numbers, and in grade 6: where students locate, compare, and order integers and rational numbers [6(2)(C)] and students order rational numbers in mathematical and real-word situations [6(2)(D)].

Allowable supports	

Misconceptions	

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5.2 **Numbers and operations**. The student applies mathematical process standards to represent, compare and order positive rational numbers and understand relationships as related to place value. The student is expected to:

B) Compare and order two decimals to the thousandths and represent comparisons using the symbols decimals through the thousandths and represent comparisons using the symbols >, <, or =.

17 Two numbers are shown. A number in between is missing.

6.027 ☐ 6.009

Which number can be placed in the box to show the numbers in order from greatest to least?

A 6.25

B 6.02

C 6.005

D 6.028

Readiness Standard

Answer	State	Region	District		
A/F	25%	27%			
B/G*	52%	47%			
C/H	11%	12%			
D/J	11%	13%			

NOTES:

5.2 **Numbers and operations**. The student applies mathematical process standards to represent, compare and order positive rational numbers and understand relationships as related to place value. The student is expected to:

C) Round decimals to tenths or hundredths.

ITEM NOT TESTED IN 2021

5.4 **Geometry and measurement**. The student applies mathematical process standards to classify two–dimensional figures by attributes and properties. The student is expecetd to classify two–dimensional figures in a hierarchy of sets and subsets using graphic organizers based on their attributes and properties. The student is expected to:

A) Identify prime and composite numbers

23 Jaylen was told to list all prime numbers between 30 and 50. Jaylen's list is shown.

31, 37, 41, 47

Which prime number is missing from Jaylen's list?

A 49

B 39

C 43

D 33

Supporting Standard

Answer	State	Region	District		
A/F	25%	30%			
B/G	18%	19%			
C/H*	42%	34%			
D/J	14%	16%			

Vocabulary	Prime number, composite number

Vertical Alignment	No vertical alignment

Supporting Information	When paired with 5(1)(C), students may use real (concrete) objects to identify prime and composite numbers. When paired with 5(1)(D), students may use pictorial models including arrays as a representation to identify prime and composite numbers. When paired with 5(1)(F), students may analyze factor pairs to connect the concepts of prime and composite numbers to defining characteristics of factors using patterns in factor pairs. The concept of prime factorization appears in grade 6 and then reappears in the Algebra I TEKS A(10)(E) as students begin to find linear factors of polynomials.

Allowable supports	

Misconceptions	

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5.4 **Geometry and measurement**. The student applies mathematical process standards to classify two–dimensional figures by attributes and properties. The student is expecetd to classify two–dimensional figures in a hierarchy of sets and subsets using graphic organizers based on their attributes and properties.

E) Describe the meaning of parentheses and brackets in a numeric expression.

ITEM NOT TESTED IN 2021

5.4 **Geometry and measurement**. The student applies mathematical process standards to classify two–dimensional figures by attributes and properties. The student is expecetd to classify two–dimensional figures in a hierarchy of sets and subsets using graphic organizers based on their attributes and properties. The student is expected to

F) Simplify numerical expressions that do not involve exponents, including up to two levels of grouping.

19 What is the value of this expression?

$$10[3 + (7 + 5) \div 3]$$

A 14

B 34

C 50

D 70

Readiness Standard

Answer	State	Region	District		
A/F	16%	23%			
B/G	13%	20%			
C/H	29%	31%			
D/J*	43%	25%			

Vocabulary	Simplify, numerical expression, exponent, grouping

Vertical Alignment	No vertical alignment

Supporting Information	An example of two levels of grouping is [3 + (3 + 4)] ÷ (5 – 3). Students are expected to use the order of operations to simplify numerical expressions. Because fluency with addition and subtraction of positive rational numbers is expected within the TEKS, expressions may include fractional values when adding or subtracting. Using multiplication and division would be district decisions. Exponents are included in the order of operations for grade 6 [6(7)(A)]

Allowable supports	

Misconceptions	

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5.4 **Geometry and measurement**. The student applies mathematical process standards to classify two–dimensional figures by attributes and properties. The student is expecetd to classify two–dimensional figures in a hierarchy of sets and subsets using graphic organizers based on their attributes and properties. The student is expected to

F) Simplify numerical expressions that do not involve exponents, including up to two levels of grouping.

33 Which expression has a value of 25?

A $2(32 + 18) \div 4$

B $(10 \times 10) \div (2 \div 2)$

C $(50 \times 10) \div 5$

D $(10 + 10) \div 4$

Readiness Standard

Answer	State	Region	District		
A/F*	65%	54%			
B/G	12%	16%			
C/H	12%	15%			
D/J	11%	15%			

NOTES: