



Standardized Assessment Tasks for
STAAR Alternate

Grade 7 Mathematics

Definitions/Examples for STAAR Reporting Category 1 (7.1) Essence Statement A

The following definitions clarify terms used in the grade 7 mathematics assessment tasks to ensure that the content of the tasks is understood. When appropriate, examples and nonexamples have been provided for further clarification. These are just examples and do not represent all the appropriate ways to test the skills in the STAAR Alternate assessment tasks.

Level 3: page 3

lowest terms – also called reduced or simplified form; a form of a fraction in which the numerator and the denominator can both be divided by one, but they cannot be divided by any other whole number.

- In this Level 3 task, $\frac{2}{8}$ is the original form of fraction in the first component of the task, and $\frac{1}{4}$ is the fraction in lowest terms. In the second component of the task, $\frac{4}{8}$ is the original form of the fraction, and $\frac{1}{2}$ is the fraction in lowest terms.
- The student must generate and record these fractions on his or her own in this Level 3 task.

STAAR Reporting Category 1 – Numbers, Operations, and Quantitative Reasoning: The student will demonstrate an understanding of numbers, operations, and quantitative reasoning.	
TEKS Knowledge & Skills Statement / STAAR-Tested Student Expectations	Essence of TEKS Knowledge & Skills Statement / STAAR-Tested Student Expectations
<p>(7.1) Number, operation, and quantitative reasoning. The student represents and uses numbers in a variety of equivalent forms. The student is expected to</p> <ul style="list-style-type: none"> (A) compare and order integers and positive rational numbers; Supporting Standard (B) convert between fractions, decimals, whole numbers, and percents mentally, on paper, [or with a calculator;] Readiness Standard (C) represent squares and square roots using geometric models. Supporting Standard 	<p>Essence Statement A: Represents and uses numbers in a variety of equivalent forms.</p>

Level 3

Prerequisite skill: construct concrete models of fractions

The student will be presented a representation of a whole object. The student will also be presented eight individual equal-size pieces that when put together will form the whole object. The student will generate one-fourth using the individual pieces. The student will generate one-half using the individual pieces. The student will record each fraction in its original form and in lowest terms.

Predetermined Criteria

1. The student will generate one-fourth using the individual pieces.
2. The student will generate one-half using the individual pieces.
3. The student will record each fraction in its original form and in lowest terms.

Process skill: relate informal language to mathematical language and symbols

Transition

Level 2

Prerequisite skill: use concrete models to represent and name fractional parts of a whole object (with denominators of 12 or less)

The student will be presented an object divided into fourths but presented individually as equal-sized pieces. The student will identify a model of a whole. The student will identify a model of two-fourths. The student will identify the fraction represented by the model of two-fourths.

Predetermined Criteria

1. The student will identify a model of a whole.
2. The student will identify a model of two-fourths.
3. The student will identify the fraction represented by the model of two-fourths.

Process skill: relate informal language to mathematical language and symbols

Transition

Level 1

Prerequisite skill: share a whole by separating it into two equal parts

The student will be presented a whole item to be divided in half to be shared. The student will be presented the item. The student will explore the whole item. The student will participate in dividing the item in half. The student will participate in sharing the item equally.

Predetermined Criteria

1. The student will explore the whole item.
2. The student will participate in dividing the item in half.
3. The student will participate in sharing the item equally.

Transition

STAAR Reporting Category 2 – Patterns, Relationships, and Algebraic Reasoning: The student will demonstrate an understanding of patterns, relationships, and algebraic reasoning.	
TEKS Knowledge & Skills Statement / STAAR-Tested Student Expectations	Essence of TEKS Knowledge & Skills Statement / STAAR-Tested Student Expectations
<p>(7.5) Patterns, relationships, and algebraic thinking. The student uses equations to solve problems. The student is expected to</p> <p>(A) use [concrete and] pictorial models to solve equations and use symbols to record the actions; Supporting Standard</p> <p>(B) formulate problem situations when given a simple equation and formulate an equation when given a problem situation. Readiness Standard</p>	<p>Essence Statement B: Uses equations to solve problems.</p>

Level 3

Prerequisite skill: use patterns to multiply by 10 and 100

The student will be presented a real-life problem in which he or she needs to determine how many packages of an item are needed for a specified number of people. Each package will represent 100 items. The number of people must be in excess of 300 but not a multiple of 100. The student will generate a multiplication equation representing the total number of items found in one package. The student will generate multiplication equations to represent each time an additional package is needed until the problem is solved. The student will determine how many packages will be needed.

Predetermined Criteria

1. The student will generate a multiplication equation representing the total number of items found in one package.
2. The student will generate multiplication equations to represent each time an additional package is needed until the problem is solved.
3. The student will determine how many packages will be needed.

Process skill: identify mathematics in everyday situations

Mathematics Grade 7; Reporting Category 2 (7.5); Essence Statement: B

Level 2

Prerequisite skill: use patterns in place value to compare and order whole numbers through 999

The student will be presented a real-life problem in which he or she needs to determine how many packages of an item sold in multiples of 10 are needed for a specified number of people. The number of people should be a multiple of 10 and at least 50. The student will be provided a list of multiplication equations that have the first two equations completed ($1 \times 10 = 10$, $2 \times 10 = 20$). Each equation will represent the number of packages multiplied by 10 equaling the total number of items. The student will complete the remaining equations with the 10 given for each one ($__ \times 10 = __$). The student will identify how many packages are needed for the given number of people. The student will identify how many packages are needed for a greater number of people supplied by the teacher.

Predetermined Criteria

1. The student will complete the remaining equations.
2. The student will identify how many packages are needed for the given number of people.
3. The student will identify how many packages are needed for a greater number of people supplied by the teacher.

Process skill: identify mathematics in everyday situations

Level 1

Prerequisite skill: use patterns to develop strategies to solve basic addition and basic subtraction problems

The student will be presented the equation $1 + 1 = 2$ with objects representing each number in the equation. The student will explore the equation with its corresponding objects. The student will participate in increasing the first addend by one object and changing the corresponding addend in the equation. Emphasizing the pattern, the teacher will add an object to the sum and adjust the equation to reflect the increase ($2 + 1 = 3$). The process will be repeated for the equation $3 + 1 = 4$. The student will respond to the new equations.

Predetermined Criteria

1. The student will explore the equation with its corresponding objects.
2. The student will participate in increasing the first addend by one object and changing the corresponding addend in both equations.
3. The student will respond to the new equations.

Definitions/Examples for STAAR Reporting Category 3 (7.7) Essence Statement C

The following definitions clarify terms used in the grade 7 mathematics assessment tasks to ensure that the content of the tasks is understood. When appropriate, examples and nonexamples have been provided for further clarification. These are just examples and do not represent all the appropriate ways to test the skills in the STAAR Alternate assessment tasks.

Level 3: page 8

mixed number – a way to name a fraction greater than 1. A mixed number includes a whole number and a fraction.

- In this Level 3 task, a student-made ruler with mixed number labels should show 1 inch, 1 $\frac{1}{2}$ inches, 2 inches, 2 $\frac{1}{2}$ inches, and continue to 12 inches in half-inch increments.
- A prelabeled ruler would NOT be appropriate for this Level 3 task.

Level 1: page 9

informal language related to the placement of an object – words that informally describe the location of an object in relation to another object.

- In this Level 1 task, an object can be described as “next to” or “beside” another object.
- In the task, it would be inappropriate for a teacher to use more formal vocabulary like the word “adjacent” to describe the relationship between the placements of the objects.

STAAR Reporting Category 3 – Geometry and Spatial Reasoning: The student will demonstrate an understanding of geometry and spatial reasoning.	
TEKS Knowledge & Skills Statement / STAAR-Tested Student Expectations	Essence of TEKS Knowledge & Skills Statement / STAAR-Tested Student Expectations
<p>(7.7) Geometry and spatial reasoning. The student uses coordinate geometry to describe location on a plane. The student is expected to</p> <p>(A) locate and name points on a coordinate plane using ordered pairs of integers; Supporting Standard</p> <p>(B) graph reflections across the horizontal or vertical axis and graph translations on a coordinate plane. Readiness Standard</p>	<p>Essence Statement C: Uses coordinate geometry to locate and name points and graph reflections and translations.</p>

Level 3

Prerequisite skill: locate and name points on a number line using whole numbers and fractions, including halves and fourths

The student will be presented a nonnumbered ruler that shows hash marks for the inches and the half-inches. The student will generate the number labels for the whole numbers. The student will generate the number labels for the mixed numbers. The student will be presented an object that measures exactly to a half-inch interval. The student will measure the item.

Predetermined Criteria

1. The student will generate the number labels for the whole numbers.
2. The student will generate the number labels for the mixed numbers.
3. The student will measure the item.

Process skill: use tools such as real objects, manipulatives, and technology to solve problems

Level 2

Prerequisite skill: use whole numbers to locate and name points on a number line

The student will be presented with an event ticket that corresponds to a row and seat assignment. The student will be directed to the row where his or her seat is located. The student will identify his or her seat in the row. The student will identify a seat in his or her row with a lower seat number. The student will identify a seat in his or her row with a higher seat number.

Predetermined Criteria

1. The student will identify his or her seat in a row.
2. The student will identify a seat in his or her row with a lower seat number.
3. The student will identify a seat in his or her row with a higher seat number.

Process skill: identify mathematics in everyday situations

Transition

Level 1

Prerequisite skill: describe one object in relation to another using informal language such as over, under, above, and below

The student will be presented three objects. The student will explore the objects. The student will participate in placing the objects horizontally in adjacent containers. As the objects are placed, the teacher will provide the informal language corresponding to the placement. The student will acknowledge the objects that were placed in a horizontal line.

Predetermined Criteria

1. The student will explore the objects.
2. The student will participate in placing the objects horizontally in adjacent containers.
3. The student will acknowledge the objects that were placed in a horizontal line.

Definitions/Examples for STAAR Reporting Category 4 (7.9) Essence Statement D

The following definitions clarify terms used in the grade 7 mathematics assessment tasks to ensure that the content of the tasks is understood. When appropriate, examples and nonexamples have been provided for further clarification. These are just examples and do not represent all the appropriate ways to test the skills in the STAAR Alternate assessment tasks.

Level 3: page 11

perimeter – the distance around a figure. To find the perimeter of a figure, add the numerical lengths of all its sides after each side is measured.

- In this Level 3 task, real-life applications of perimeter might include finding the perimeter of a rectangular space enclosed by a fence, finding the perimeter of the bottom of a drawer or shelf, or finding the perimeter of the rectangular cover of a book.
- In this Level 3 task, tracing each side of a figure with a pencil or a finger is NOT considered to be determining the perimeter.

Level 2: page 12

nonstandard measurement tool – a real-life object that approximates the length of a standard measurement tool.

- In this Level 2 task, a student can assist in measuring the length of an item by using the edge of an object that is approximately one foot long. A book, a folder, or a piece of paper would be appropriate.
- A ruler is a standard measurement tool; it should NOT be used as a nonstandard measurement tool.

STAAR Reporting Category 4 – Measurement: The student will demonstrate an understanding of the concepts and uses of measurement.	
TEKS Knowledge & Skills Statement / STAAR-Tested Student Expectations	Essence of TEKS Knowledge & Skills Statement / STAAR-Tested Student Expectations
<p>(7.9) Measurement. The student solves application problems involving estimation and measurement. The student is expected to</p> <ul style="list-style-type: none"> (A) estimate measurements and solve application problems involving length (including perimeter and circumference) and area of polygons and other shapes; Readiness Standard (B) connect models for volume of prisms (triangular and rectangular) and cylinders to formulas of prisms (triangular and rectangular) and cylinders; Supporting Standard (C) estimate measurements and solve application problems involving volume of prisms (rectangular and triangular) and cylinders. Readiness Standard 	<p>Essence Statement D: Uses estimation and measurement to solve problems.</p>

Level 3

Prerequisite skill: use standard units to find the perimeter of a shape

The student will be presented a real-life problem that requires comparing the perimeter of two rectangles. The student will be presented a wide array of measurement tools. The student will select an appropriate tool for measuring perimeter. The student will determine the perimeter of one rectangle using the tool. The student will be presented a second rectangle with longer side lengths. The student will determine the perimeter of the second rectangle. The student will determine the relationship between the perimeters of the two rectangles.

Predetermined Criteria

1. The student will select an appropriate tool for measuring perimeter.
2. The student will determine the perimeter of each rectangle.
3. The student will determine the relationship between the perimeters of the two rectangles.

Process skill: use tools such as real objects, manipulatives, and technology to solve problems

Transition

Mathematics Grade 7; Reporting Category 4 (7.9); Essence Statement: D

Level 2

Prerequisite skill: identify concrete models that approximate standard units of length and use them to measure length

The student will investigate an alternate way to measure length other than standardized measurement units. The student will be presented a 12-inch ruler. The student will choose a nonstandard measurement tool that approximates the length of a ruler. The student will assist in measuring the length of a given item that measures more than one foot using the nonstandard measurement tool. The student will identify the length of the item to the nearest whole unit.

Predetermined Criteria

1. The student will choose a nonstandard measurement tool that approximates the length of a ruler.
2. The student will assist in measuring the length of a given item that measures more than one foot using the nonstandard measurement tool.
3. The student will identify the length of the item to the nearest whole unit.

Process skill: use tools such as real objects, manipulatives, and technology to solve problems

Level 1

Prerequisite skill: compare and order two or more concrete objects according to length (from longest to shortest)

The student will participate in an investigation to recognize that lengths of objects can vary. The student will be presented three objects, two with the same length and one with a different length. The objects will be arranged so that the lengths can be easily compared. The student will explore the length of each object. The student will acknowledge the two objects that are the same length. The student will respond to the object that is a different length.

Predetermined Criteria

1. The student will explore the length of each object.
2. The student will acknowledge the two objects that are the same length.
3. The student will respond to the object that is a different length.