Broken Into More Specific

M05.A-T.1.1.1: Demonstrate an understanding that in a multi-digit number, a digit in one place represents 1/10 of what it represents in the place to its left. Example: Recognize that in the number 770, the 7 in the tens place is 1/10 the 7 in the hundreds place.

Questions should be simplistic, like your sample: In the number 770, the 7 in the tens place is _____ the 7 in the hundredths place... Instead of your complicated sample question using expanded form

statement is fine (the example question and how it is explained is not on a 5th grade level. placement value is important but the way the question was worded and solved was even confusing for myself)

M05.A-F.2.1.1: Solve word problems involving division of whole numbers leading to answers in the form of fractions (including mixed numbers).

In the eligible content, your word problems are designed and written to confuse the students. (Over 15 years of teaching)

Solve word problems involving division of whole numbers. Divide using fractions and whole numbers.

Solve word problems involving division of whole numbers. Then use this information to solve for answer with fractions or decimals.

Solve word problems with division of whole numbers. Then use this information to solve for an answer with fractions or decimals.

M05.A-F.2.1.3: Demonstrate an understanding of multiplication as scaling (resizing). Example 1: Comparing the size of a product to the size of one factor on the basis of the size of the other factor without performing the indicated multiplication. Example 2: Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number.

There is too much content in this one content. Each example should be an individual area of content. (Classroom experience)

The statement is fine, it is the question that I do not like. The possible answers to your sample question are confusing. The answers should be be worded better so as not to be confusing for students. Example: when multiplying a fraction with a whole number, the product will be...? Smaller than the given whole number!

M05.B-O.1.1.1: Use multiple grouping symbols (parentheses, brackets, or braces) in numerical expressions and evaluate expressions containing these symbols.

Brackets and braces do not need to be included in 5th grade. Parenthesis should be included.

M05.C-G.2.1.1: Classify two-dimensional figures in a hierarchy based on properties. Example 1: All polygons have at least three sides, and pentagons are polygons, so all pentagons have at least three sides. Example 2: A rectangle is a parallelogram, which is a quadrilateral, which is a polygon; so, a rectangle can be classified as a parallelogram, as a quadrilateral, and as a polygon.

Plot the point: (This is testing two skills- coordinates and quadrilaterals)

M05.D-M.2.1.1: Solve problems involving computation of fractions by using information presented in line plots.

7/8 - 1/4 (There are two different skills being tested in this question.)

What is the intent of the item? If it is to show an understanding of using information found in line plots, then the units of measure from the plot to the question should remain the same.

asking the students to find 7/8 of a foot and subtract 1/6 of a foot is beyond fifth grade material.

M05.D-M.2.1.2: Display and interpret data shown in tallies, tables, charts, pictographs, bar graphs, and line graphs, and use a title, appropriate scale, and labels. A grid will be provided to display data on bar graphs or line graphs.

Displaying and interpreting data should be one factor. A separate factor should be the conversion.

M05.D-M.3.1.2: Find volumes of solid figures composed of two non-

overlapping right rectangular prisms.

Statement should include that all factors of the shape need to be taken into account.

The statement does not need to be rewritten. The diagram needs to be more clear. (The diagram is difficult for a 5th grader to read.)

Different Grade

M05.A-T.1.1.1: Demonstrate an understanding that in a multi-digit number, a digit in one place represents 1/10 of what it represents in the place to its left. Example: Recognize that in the number 770, the 7 in the tens place is 1/10 the 7 in the hundreds place.

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M05.A-T.1.1.2: Explain patterns in the number of zeros of the product when multiplying a number by powers of 10 and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10. Example 1: 4 × 10^2 = 400 Example 2: 0.05 ÷ 10^3 = 0.00005

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M05.A-T.1.1.3: Read and write decimals to thousandths using base-ten numerals, word form, and expanded form. Example: 347.392 = 300 + 40 +

7 + 0.3 + 0.09 + 0.002 = 3 × 100 + 4 × 10 + 7 × 1 + 3 × (0.1) + 9 × (0.01) + 2 × (0.001)

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M05.A-T.1.1.4: Compare two decimals to thousandths based on meanings of the digits in each place using >, =, and < symbols.

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M05.A-T.1.1.5: Round decimals to any place (limit rounding to ones, tenths, hundredths, or thousandths place).

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M05.A-T.2.1.2: Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors.

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M05.A-T.2.1.3: Add, subtract, multiply, and divide decimals to hundredths (no divisors with decimals).

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M05.A-F.1.1.1: Add and subtract fractions (including mixed numbers) with unlike denominators. (May include multiple methods and representations.) Example: 2/3 + 5/4 = 8/12 + 15/12 = 23/12

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M05.A-F.2.1.1: Solve word problems involving division of whole numbers leading to answers in the form of fractions (including mixed numbers).

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M05.A-F.2.1.2: Multiply a fraction (including mixed numbers) by a fraction.

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M05.A-F.2.1.3: Demonstrate an understanding of multiplication as scaling (resizing). Example 1: Comparing the size of a product to the size of one factor on the basis of the size of the other factor without performing the indicated multiplication. Example 2: Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number.

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M05.A-F.2.1.4: Divide unit fractions by whole numbers and whole numbers by unit fractions.

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M05.B-O.1.1.1: Use multiple grouping symbols (parentheses, brackets, or braces) in numerical expressions and evaluate expressions containing these symbols.

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M05.B-O.1.1.2: Write simple expressions that model calculations with numbers and interpret numerical expressions without evaluating them. Example 1: Express the calculation “add 8 and 7, then multiply by 2” as 2 × (8 + 7). Example 2: Recognize that 3 × (18,932 + 921) is three times as large as 18,932 + 921 without having to calculate the indicated sum or product.

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M05.B-O.2.1.2: Identify apparent relationships between corresponding terms of two patterns with the same starting numbers that follow different rules. Example: Given two patterns in which the first pattern follows the rule “add 8” and the second pattern follows the rule “add 2,” observe that the terms in the first pattern are 4 times the size of the terms in the second pattern.

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M05.C-G.1.1.1: Identify parts of the coordinate plane (x-axis, y-axis, and the origin) and the ordered pair (x-coordinate and y-coordinate). Limit the coordinate plane to quadrant I.

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M05.C-G.1.1.2: Represent real-world and mathematical problems by plotting points in quadrant I of the coordinate plane and interpret coordinate values of points in the context of the situation.

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M05.C-G.2.1.1: Classify two-dimensional figures in a hierarchy based on properties. Example 1: All polygons have at least three sides, and pentagons are polygons, so all pentagons have at least three sides.

Example 2: A rectangle is a parallelogram, which is a quadrilateral, which is a polygon; so, a rectangle can be classified as a parallelogram, as a quadrilateral, and as a polygon.

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M05.D-M.1.1.1: Convert between different-sized measurement units within a given measurement system. A table of equivalencies will be provided. Example: Convert 5 cm to meters.

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M05.D-M.2.1.1: Solve problems involving computation of fractions by using information presented in line plots.

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M05.D-M.2.1.2: Display and interpret data shown in tallies, tables, charts, pictographs, bar graphs, and line graphs, and use a title, appropriate scale, and labels. A grid will be provided to display data on bar graphs or line graphs.

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M05.D-M.3.1.1: Apply the formulas V = l × w × h and V = B × h for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real-world and mathematical problems. Formulas will be provided.

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M05.D-M.3.1.2: Find volumes of solid figures composed of two non-overlapping right rectangular prisms.

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Rewritten

M05.A-T.1.1.1: Demonstrate an understanding that in a multi-digit number, a digit in one place represents 1/10 of what it represents in the place to its left. Example: Recognize that in the number 770, the 7 in the tens place is 1/10 the 7 in the hundreds place.

[You'll have to rewrite it yourselves, but absent an answer that would be correct if the decimal place were "hundreds" rather than "hundredths".] (This seems to be what survey researchers call a double-barreled question. It measures not only whether a student recognizes that a digit is 1/10 of the next digit, but also whether they know the difference between labels hundreds and hundredths. That might be confusing and cause some people to answer the question incorrectly even if they know that adjoining digits are 10x or 1/10x the next digit.)

A number has an 8 in the hundreds place and a digit in the hundredths place that is 1/10 the value of the digit in the hundreds place. Which of the following can be the number? (This question is testing two different skills in one question.)

I do not have a suggested revision as the expanded form of numbers is very confusing and I don't think it should be used. (I find the use of expansion to explain numbers very confusing.)

The digit in the tens place is how many times greater than the digit in the ones place? (I thought you were testing the students on what they know, not trying to trick them!)

M05.A-T.1.1.2: Explain patterns in the number of zeros of the product when multiplying a number by powers of 10 and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10. Example 1: 4 × 10^2 = 400 Example 2: 0.05 ÷ 10^3 = 0.00005

either ask the question using multiplication or division, not both at the same time!!! (Again, test the objective.)

What are the total number of zeros needed in the product? (too wordy)

What is the total number of zeros needed in the product. (It is confusing as it is worded.)

Explain patterns for multiplying and dividing by powers of 10. (Classroom experience)

M05.A-T.1.1.3: Read and write decimals to thousandths using base-ten numerals, word form, and expanded form. Example: 347.392 = 300 + 40 + 7 + 0.3 + 0.09 + 0.002 = 3 × 100 + 4 × 10 + 7 × 1 + 3 × (0.1) + 9 × (0.01) + 2 × (0.001)

1. Write the number in expanded form 2. Writing the number in word form 3. Write the number in expanded from using exponents 4. Write the number in standard form (Four different questions!)

How would you write the following number in expanded form. (Why do you need to include details about the weight of the dog?)

M05.A-T.1.1.4: Compare two decimals to thousandths based on meanings of the digits in each place using >, =, and < symbols.

Who is writing these questions, are we testing the objectives in math, or the ability to follow understand directions meant for the upper grades? Compare these two numbers using <, >, or = (Inequalities)

M05.A-T.1.1.5: Round decimals to any place (limit rounding to ones, tenths, hundredths, or thousandths place).

Round the decimal number to the underlined digit. Or, round the number to the BLANK place

value?

Round the following decimal to the nearest tenth. (The extra information about the stones is unnecessary. You are asking them to divide and round.)

The statement is fine, but the test question is too complicated. It should be strictly based on eligible content. Instead it is asking them to round, add, & subtract, decimals which are different skills than the content is assessing. (Classroom teaching experience)

Tyler's bag of shells weighs 4.97 pounds. he finds 2 stones that weigh the same, (0.67 pounds). What is the weight of each stone to the nearest tenth of a pound? (If you want them to round... have them round... this question should not also be testing other operations before they round. Not fair.)

Tyler's bag of shells weights 4.97 pounds. He finds 2 stones that weight the same, (0.67 pounds each). What is the weight of each stone to the nearest tenth of a pound? (Your asking them to do 2 other operations before they get to the tested standard.)

M05.A-T.2.1.1: Multiply multi-digit whole numbers (not to exceed three-digit by three-digit).

Fluently multiply multi-digit whole numbers using the standard algorithm. (Curriculum Focal Points (NCTM, 2006); CCSS-M (grade 5) - CCSSO (2010))

Multiply a three digit number by a three digit number.

M05.A-T.2.1.2: Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors.

The store received a shipment of 1,944 model cars. After all the cars are unpacked, they are arranged into 27 rows with the same number of cars in each row. How many cars are in each row? (If the purpose of this statement is to determine if the student is proficient in division of multi-digit whole numbers, the student should not be required to first multiply pieces of information in the statement to get the information needed to find the answer.)

What is your objective here? The ability to divide or the ability to understand math definitions?

M05.A-F.1.1.1: Add and subtract fractions (including mixed numbers) with unlike denominators. (May include multiple methods and representations.) Example: 2/3 + 5/4 = 8/12 + 15/12 = 23/12

8 1/3 + 5 3/4 = x x = (There should be some problems that do not require reading on a MATH test.)

M05.A-F.2.1.3: Demonstrate an understanding of multiplication as scaling (resizing). Example 1: Comparing the size of a product to the size of one factor on the basis of the size of the other factor without performing the indicated multiplication. Example 2: Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number.

As written, it is very confusing to teachers and teachers. Too wordy.

Its just not clearly written based on the sample question.

The answer should be because the factor is less than one. (Years of teaching.)

The answers are too confusing.

This is a good question but it needs reworded. Maybe say that because saying that because it's a fraction it's going to be less then the whole number.

M05.B-O.1.1.1: Use multiple grouping symbols (parentheses, brackets, or braces) in numerical expressions and evaluate expressions containing these symbols.

Solve the following equation. (The word problem is unnecessary.)

Use grouping symbols (parentheses) in numerical expressions and evaluate expressions containing these symbols. (Brackets and braces should be upper grade levels only.)

Use grouping symbols (parenthesis only) in numerical expressions and evaluate expressions containing these symbols. - one only

No need introduce braces and brackets in fifth grade.

Take out the braces and brackets

M05.B-O.1.1.2: Write simple expressions that model calculations with numbers and interpret numerical expressions without evaluating them. Example 1: Express the calculation “add 8 and 7, then multiply by 2” as 2 × (8 + 7). Example 2: Recognize that 3 × (18,932 + 921) is three times as large as 18,932 + 921 without having to calculate the indicated sum or

product.

eligible content is fine. The problem is with the example problem is designed to trick the students.

I don't have a problems with the eligible content statement. I DO have an issue with the example questions. It is designed to trick them.

M05.B-O.2.1.2: Identify apparent relationships between corresponding terms of two patterns with the same starting numbers that follow different rules. Example: Given two patterns in which the first pattern follows the rule “add 8” and the second pattern follows the rule “add 2,” observe that the terms in the first pattern are 4 times the size of the terms in the second pattern.

Identify the relationship between numbers in a pattern that are in the same place (example: Pattern 1's first number and Pattern 2's first number).

John and Megan...the question is fine... the choices (the answers are very wordy and purposely confusing and misleading....)

The question is fine. The choices are very wordy. (Very wordy)

Too Complicated.

M05.C-G.1.1.1: Identify parts of the coordinate plane (x-axis, y-axis, and the origin) and the ordered pair (x-coordinate and y-coordinate). Limit the coordinate plane to quadrant I.

Eligible content is fine, it is how the problem is written that is confusing and designed to trick students. What testing for? Knowledge of coordinate planes or trying to trick students

Eligible content is fine. The problem is confusing and again designed to trick them. What are you testing for?

Identify parts of the coordinate plane and the ordered pairs and plot ordered pairs in quadrant I.

M05.D-M.1.1.1: Convert between different-sized measurement units within a given measurement system. A table of equivalencies will be provided. Example: Convert 5 cm to meters.

No table of equivalencies will be provided.

Remove the bar graph (The question is testing two skills- bar graphs and conversions.)

The questions should include the conversion in it, as opposed to a separate table or just expecting the student to know

What is the height of the largest vase in centimeters (cm)? (This question was changed due to the graph being in centimeters and not millimeters. This sample question focuses more on interpreting a graph then converting between measurements.)

M05.D-M.2.1.1: Solve problems involving computation of fractions by using information presented in line plots.

It us unclear what the actual goal is.

Questions should include the conversion information needed to answer it

Solve problems involving computation of fractions by using information presented in line plots - addition and subtraction only with common denominators.

M05.D-M.2.1.2: Display and interpret data shown in tallies, tables, charts, pictographs, bar graphs, and line graphs, and use a title, appropriate scale, and labels. A grid will be provided to display data on bar graphs or line graphs.

in real life, no one creates a bar graph that has to be converted. The statement is fine... the question is again designed to trick students.

In real life, no one creates a graph that needs converted. AGAIN, this is designed to trick students.

Read the graph: (Two skills are being tested- conversions and bar graphs)

What is the difference in inches of the city with the greatest rainfall and the city with the least rainfall? (This question focuses more on conversions then it does on interpreting data.)

M05.D-M.3.1.1: Apply the formulas V = l × w × h and V = B × h for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real-world and mathematical problems. Formulas will be provided.

Should provide more information in these questions such as cubic feet formula!

Take out the formula V= Bxh

The problem does not focus on volume alone. The student has to convert units in addition to finding the volume. The test questions need to be less convoluted in this manner.

M05.D-M.3.1.2: Find volumes of solid figures composed of two non-overlapping right rectangular prisms.

Not clear

too confusing (This picture is confusing. The rectangular prisms should each have all 3 dimensions shown. You are making the tester assume the third measure of the vertical prism. At the very least make the picture larger.)

Should Be Deleted

M05.A-T.1.1.1: Demonstrate an understanding that in a multi-digit number, a digit in one place represents 1/10 of what it represents in the place to its left. Example: Recognize that in the number 770, the 7 in the tens place is 1/10 the 7 in the hundreds place.

The sample test question is too confusing for a 10 & 11 year old to understand.

The test question for this standard is ridiculous. A 5th grade student's brain is not developed enough to even comprehend the question let alone try and solve the problem. It's way too confusing even for an adult!

This is not developmentally appropriate

Confusing way to teach place value. The hundreds place is 10 times more than the tens place is much easier to understand.

This should be put in an upper grade level.

M05.A-T.1.1.2: Explain patterns in the number of zeros of the product when multiplying a number by powers of 10 and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10. Example 1: 4 × 10^2 = 400 Example 2: 0.05 ÷ 10^3 = 0.00005

More explanation is needed.

Not needed at this grade level. More appropriate in an upper grade level.

The variables should be changed to numbers. The variables will confuse the students

There was not much content and practice in our materials that work with adding exponents. While the students know that 10 to the second power is 100, statements such as 10 to the second power times 10 to the second power were not covered.

This question is way more confusing than it needs to be.

Too difficult and confusing for the mind of a fifth grader.

M05.A-T.1.1.5: Round decimals to any place (limit rounding to ones, tenths, hundredths, or thousandths place).

Too many multi-step processes needed to solve.

Too many steps.... These questions are setting the students up for failure.

M05.A-F.2.1.1: Solve word problems involving division of whole numbers leading to answers in the form of fractions (including mixed numbers).

Students at this grade level are continuing to master word problems and division along with beginning to master fractions. Some are just being introduced to mixed numbers and creating a fractions from answers. To expect mastery at this level is unrealistic.

M05.A-F.2.1.2: Multiply a fraction (including mixed numbers) by a fraction.

Is this with common or uncommon denominators? If uncommon this skill isn't mastered at this level and shouldn't be included on this test.

M05.A-F.2.1.3: Demonstrate an understanding of multiplication as scaling (resizing). Example 1: Comparing the size of a product to the size of one factor on the basis of the size of the other factor without performing the indicated multiplication. Example 2: Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number.

I don't think that this is a necessary skill for students to learn.

This is confusing and unclear.

This isn't developmentally appropriate for children this age.

This question is not appropriate for a fifth grade student that is at the introductory level for this concept. Give them a basic problem such as: 1/5 x 4 = x x =____

This statement is not at all worded appropriately for a 5th grade student who is just learning to multiply fractions & whole numbers. It is too wordy and it is NOT appropriate question for multiple choice at this level. It is like you are pushing so they get it wrong... even if they have the process. You are pushing it... this is not actually a conceptual question, which is what you obviously thin.

This statement should be in the upper level grades.

This skill is just being introduced in 5th grade and has not met mastery.

M05.A-F.2.1.4: Divide unit fractions by whole numbers and whole numbers by unit fractions.

There are too many steps for a 5th graders to figure out.

This is confusing.

This skill is just being introduced in 5th grade and has not met mastery.

It is too complex... too many steps for a fifth grader.

M05.B-O.1.1.2: Write simple expressions that model calculations with numbers and interpret numerical expressions without evaluating them. Example 1: Express the calculation “add 8 and 7, then multiply by 2” as 2 × (8 + 7). Example 2: Recognize that 3 × (18,932 + 921) is three times as large as 18,932 + 921 without having to calculate the indicated sum or product.

This is not taught in the 5th grade curriculum.

M05.B-O.2.1.2: Identify apparent relationships between corresponding terms of two patterns with the same starting numbers that follow different rules. Example: Given two patterns in which the first pattern follows the rule “add 8” and the second pattern follows the rule “add 2,” observe that the terms in the first pattern are 4 times the size of the terms in the second pattern.

I don't think that it is a necessary skill to teach students.

There is a lot of time required to cover all of the content in depth. This is one thing that should be cut or moved to another grade level to create time for other content.

M05.C-G.1.1.1: Identify parts of the coordinate plane (x-axis, y-axis, and the origin) and the ordered pair (x-coordinate and y-coordinate). Limit the coordinate plane to quadrant I.

This question does not assess knowledge of plotting points.

too confusing

M05.C-G.1.1.2: Represent real-world and mathematical problems by plotting points in quadrant I of the coordinate plane and interpret coordinate values of points in the context of the situation.

This question is confusing and provides no real value in plotting points.

M05.C-G.2.1.1: Classify two-dimensional figures in a hierarchy based on properties. Example 1: All polygons have at least three sides, and pentagons are polygons, so all pentagons have at least three sides. Example 2: A rectangle is a parallelogram, which is a quadrilateral, which is a polygon; so, a rectangle can be classified as a parallelogram, as a quadrilateral, and as a polygon.

More than a knowledge of two-dimensional figures is need to answer the question.

The test question is confusing & would be difficult for this grade level.

M05.D-M.2.1.1: Solve problems involving computation of fractions by using information presented in line plots.

It is confusing as to whether you are using the numbers on the line plot or the actual x the student recorded on the line plot

Line plots not needed in grade 5.

More time needs to be devoted to fraction operations before worrying about handling them in line plots at this level.

M05.D-M.3.1.1: Apply the formulas V = l × w × h and V = B × h for rectangular prisms to find volumes of right rectangular prisms with

whole-number edge lengths in the context of solving real-world and mathematical problems. Formulas will be provided.

This is not a mastered skill in 5th grade but emerging and students should not be expected to have mastery.

M05.D-M.3.1.2: Find volumes of solid figures composed of two non-overlapping right rectangular prisms.

Mastery is not obtained by 5th grade of this skill.

Suggested Eligible Content

Test additional

perimeter, mean, median, mode, range, polygons, area, rounding