2025 SC CCR Mathematics Standards Content Frequently Asked Questions

Office of Assessment and Standards

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***Prior knowledge of a previous grade level can be used in assessments.**

Primary (K-2) Questions

General Questions

Question	Answer
"One of my teachers in our meeting today pointed out that the first-grade entrance statement says, “students will begin telling time to the hour on analog and digital clocks”. The standard is hour and half hour. Does this need to be rewritten in the entrance statement?	The entrance statements are not meant to be a listing of all the indicators, but rather a general overview of the concepts included in the grade level. If the feeling is that this needs to be updated, we will put it on the list for the next iteration.
What definition should be used when teaching students how to correctly identify the number of faces a 3D figure has? Are curved faces now considered a face? Does a sphere have 0 or 1 face? Old standards - 2.G.1 New standards - 1.MGSR 2.2 and 2.3 2.MGSR 2.1	When teaching students how to correctly identify the number of faces of a 3-D figure the definition that should be used is as follows: A face is defined as a flat surface of a solid shape. Therefore, a cylinder has 2 faces, a cone has 1 face, and a sphere has 0 faces. A curved surface is not considered a face in 3-D figures.
1.PAFR.1.4 Add and subtract number combinations flexibly and accurately within 10. 2.PAFR.1.5 Add and subtract number combinations flexibly and accurately within 20. 3.PAFR.1.3 Multiply two whole numbers from 0 to 10 and divide using related facts flexibly and accurately. When assessing, are we only checking for accuracy and flexibility? When instructing, are we also working toward efficiency, but just not assessing efficiency? When considering flexibility and efficiency, are there specific strategy expectations at each grade level? Is there a difference between the success criteria for “flexibly” in 1st grade and 2nd grade?	Yes. Students should have several strategies to address any of these standards, which fits the “flexibility” criteria. Efficiency relates to how comfortable the student is with applying strategies independently. The indicator insights outline suggested strategies for each grade level. “Flexibly” refers to a student’s ability to identify and use more than 1 strategy for a given calculation. This expectation spans across grade levels, though the strategies may vary.

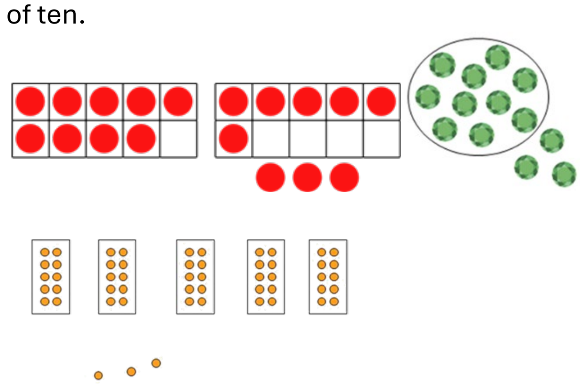
Question	Answer
1.PAFR.1.4 Add and subtract number combinations flexibly and accurately within 10. 2.PAFR.1.5 Add and subtract number combinations flexibly and accurately within 20. 3.PAFR.1.3 Multiply two whole numbers from 0 to 10 and divide using related facts flexibly and accurately. There are varying definitions and interpretations of what it means to be flexible and efficient. Definitions that align with the expectations of these indicators and several examples of what proficiency looks like for each indicator would be helpful.	**Flexible** - ability to apply more than 1 strategy to a given problem; strategies can be applied to new problems; strategy is appropriate for the numbers in the problem **Efficient** - ability to solve a problem with ease in a reasonable amount of time; strategy chosen "fits" the numbers in the problem **Accurate** - ability to provide the correct answer **Fluency** - ability to encompass all of these things when solving problems *Adapted from Math Fact Fluency: 60+ Games and Assessment Tools to Support Learning and Retention by Jennifer Bay-Williams & Gina Kling*

Kindergarten Questions

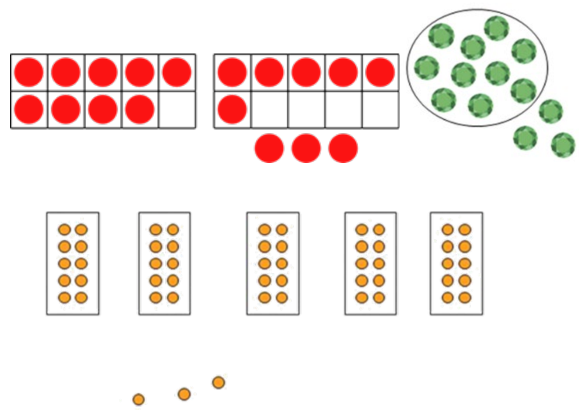
Question	Answer
In the standard K.NR.1.1 Read, write, and represent the numerals 0 to 20 and represent the written numeral with concrete models, we wanted to make sure that we are doing the "write" portion of the standard correctly. Should students be able to write the numbers in random order from memory, or should this be done in order from 1-20? We were a little confused because the first-grade standard states the same thing except it goes to 100. Our question is, is this standard leading into writing their numbers in order to 100 or should they just be recalling the number and writing it from memory?	The indicator K.NR.1.1 does not require students to read, write, or represent the numerals 0 to 20 in order. The indicators 1.NR.1.1 and 2.NR.1.1 also do not require students to perform these tasks in order. Recognizing the order of numerals is prioritized more in K.NR.2.1 Count forward by ones and tens to 100 and backward from 10 by ones. This continues with 1.NR.2.1, 1.NR.2.2, and 2.NR.2.1. K.NR.1.1 sets the expectation that students can read, write, and model numerals with manipulatives, pictures, fingers, etc. K.NR.2.1 sets the expectation that students can recognize the pattern of numbers to 100 and recite the numbers in order (rote counting).
K.NR.2.3 Given a group of objects, count the number of objects in that group and represent the number of objects with a written numeral. State the number of objects in a rearrangement of that group without recounting. What would this look like?	For example: If students are given 5 objects in the first arrangement and asked how many there are, the student would count to determine if there are 5. After they count the arrangement, you rearrange the objects, and the student should know there are still 5 without having to recount. How the objects are arranged does not change the quantity.

Question	Answer
K.NR.3.1 - For this standard do we need to make sure a student is using and explaining their strategy for more than or less than? For example, if a student sees a group of 9 bears and 4 bears and can tell it's more, do they still need to show a specific matching strategy for mastery? Or do we think it's ok for them to just know based on looking? Our current common assessment is asking for a strategy used each time, and I want to clarify.	Students are not required to use one-to-one matching strategies to determine which is more than, fewer than, or the same as. However, teachers are strongly encouraged to ask students to explain their thinking i.e., how do you know that 9 is more than 4 (for example). This can be challenging for students to articulate, so this is when the one-to-one matching would be a helpful tool for explaining how we can recognize which is more/less.
When teaching K.PAFR.1.1 (Add and subtract number combinations within 5) and considering what proficiency looks like for this specific indicator, how should this be presented to students? Did the writing team intend for the number combinations to be presented with equations? We read the indicator insight and envision that visuals, concrete models, and five frames will serve as tools and visual models to support the addition and subtraction. We're just wondering, for this specific indicator, if we would initially present the addition and subtraction problems with equations.	K.PAFR.1.1 is the abstract level of thinking in a concrete-representational-abstract progression; therefore as you concluded children are going to need repeated experiences with many different types of concrete materials, pictorial and math models (Number Bonds, Five Frames, Part Part Whole Mats, etc.) over an extended amount of time to make sense of the abstract representations. This understandably will cause quite a bit of overlap among the PAFR indicators however, using equations to distinguish between the indicators when initially presenting the content is not necessary. Students should get there by the end of the year, but their ability to make sense of the numbers and symbols must come first.
K.PAFR.1.1 - For this indicator does it involve using equations with the students such as (2+3 and 4-1, etc.)? Or is it more auditory/explanation? The current assessment for this indicator in my district includes showing students an equation such as a card with 2+1 on it and asking them to show it using manipulatives. I want to make sure the expectation for this standard does involve equations. If it does not, can you let me know how you recommend assessing it?	This indicator does not set the expectation for students to add and subtract within 5 using equations, but it also does not exclude them. Assessments for this indicator could certainly be auditory and one-on-one so that students can explain and or model their thinking and sums/differences. Students may also use picture representations and five frames to identify addends and/or subtrahends, and again, fill in the blanks of a printed equation. Showing students an expression and having them represent it and tell/write the sum or difference meets the intention of the indicator.
K.PAFR.2.1 - The assessment our district made for this standard uses letters such as AB and AAB with the students to have them create patterns. For example, it may say to ask the student to "use these tiles to create an ABC pattern." Is the expectation for this standard for students to know the difference between these and for us as teachers to use that language with them?	The indicator insight for this indicator says, "Letter patterns are only for teacher use to strategically represent a variety of patterns with students." The expectation is for students to be able to describe, extend, and create patterns, but naming them "AB, AAB, ABB, ABC" is not an expectation for students.

First Grade Questions

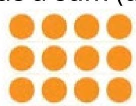
Question	Answer
1.NR.1.1 Read, write, and represent numbers to 100 using concrete models, drawings, standard form, base ten language, and equations in expanded form. 1.NR.1.3 Compose and decompose whole numbers from 1 through 99 in more than one way using tens and ones. Explain and demonstrate each composition or decomposition with the use of concrete models, drawings, and/or equations. The insights for both of these indicators state that base ten blocks should not be used at this level. We understand the reasoning for this, but are wondering if interlocking base ten blocks and/or Digi-blocks are recommended since they can be broken into individual units?	The intent is for students to be able to group and ungroup objects. Any objects that are able to be grouped and/or taken apart can be used.
1.NR.1.1 Read, write, and represent numbers to 100 using concrete models, drawings, standard form, base ten language, and equations in expanded form. 1.NR.1.3 Compose and decompose whole numbers from 1 through 99 in more than one way using tens and ones. Explain and demonstrate each composition or decomposition with the use of concrete models, drawings, and/or equations. Will you please provide more insight into what a drawing to represent a number such as 79 would like without the use of base ten block representations?	One suggestion would be to have students count and bundle popsicle sticks in groups of tens at the beginning of the year and use the bundles to build numbers throughout the year. Another suggestion would be to have a bundling station and change out the manipulatives (beads in bags, beans in plastic condiment cups with lids, etc.)
1.NR.1.1 Read, write, and represent numbers to 100 using concrete models, drawings, standard form, base ten language, and equations in expanded form. 1.NR.1.3 Compose and decompose whole numbers from 1 through 99 in more than one way using tens and ones. Explain and demonstrate each composition or decomposition with the use of concrete models, drawings, and/or equations. Would one possible recommendation be to use the interlocking base ten blocks or Digi-blocks as manipulatives and then teach students to draw a line to represent the group of ten?	The representation of ten should be scaffolded so that student models reflect their understanding of the value of ten before progressing to using a line to represent it. For example, students may draw 10 popsicle stick shapes/Digi-blocks and then enclose them in a circle/rectangle to show a group of ten. Ten frames would also be a way to represent groups of ten. 

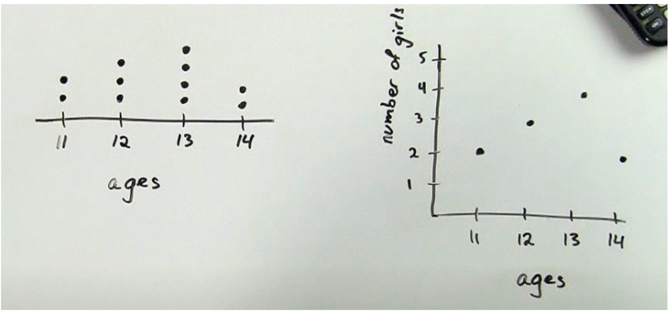
Question	Answer
1.NR.3.1 Compare representations of two numbers up to 100 using the phrases is greater than, is less than, or is equal to (the same value as). Representations listed in the indicator insight include base ten as a number form. When considering the statements about not using base ten blocks in the insights for 1.NR.1.1 and 1.NR.1.3 and for assessment purposes, what does base ten number form look like? Does this mean base ten language, such as 5 tens and 6 ones or does this mean a visual representation of base ten blocks?	Base ten form: 7 tens 3 ones (is greater than, is less than, or is equal to) 3 tens 7 ones 3 tens 12 ones (is greater than, is less than, or is equal to) 5 tens 2 ones They could also compare two numbers represented using models such as ten frames or linking cubes.
1.PAFR.1.4 Add and subtract number combinations flexibly and accurately within 10. Are 1st graders expected to use derived fact strategies to be considered flexible, or is moving from counting all to more efficient counting strategies, such as counting on, considered flexible enough?	Since derived facts are not listed as a strategy in the insights it can be assumed that this is not an expectation of 1st graders; however, some derived facts can be used to solve problems within 10 such as 3+ 4. A student can use the double 3 + 3 to help solve that problem. Flexibility in 1st grade is demonstrated through knowledge of how numbers can be composed and decomposed.
1.PAFR.1.7 Find the sum of a two-digit number and a one-digit number or a two-digit number and a multiple of 10 (1–99) using concrete models, drawings, and strategies that reflect place value understanding, the inverse relationship of addition and subtraction, and the properties of the operations to justify the sum. The indicator says, "strategies that reflect place value understanding." To further clarify, does this include an understanding that sometimes it's necessary to compose a ten (regroup)?	Yes, this indicator encompasses problems where regrouping is required. Work in 1.NR.1.3 serves a foundation for this.

Question	Answer
1.PAFR.1.7 Find the sum of a two-digit number and a one-digit number or a two-digit number and a multiple of 10 (1–99) using concrete models, drawings, and strategies that reflect place value understanding, the inverse relationship of addition and subtraction, and the properties of the operations to justify the sum. 1.PAFR.1.8 Find the difference between two numbers that are multiples of 10, both in the range 10–90 and write the corresponding equation. Explain the reasoning used. The insights for 1.NR.1.1 and 1.NR.1.3 say not to use base ten blocks. These indicators state that concrete materials should be used. What is the recommendation regarding base ten blocks when teaching 1.PAFR.1.7 and 1.PAFR.1.8? Also, if the recommendation is not to use base ten blocks with a unitized ten, what are some examples of how to find the sum using drawings? Is it okay to draw two lines to represent the two groups of ten? What other concrete models do you recommend that will allow students to efficiently represent the number without having to use 86 ones?	It is appropriate for students at this level to use materials such as popsicle sticks, coffee stirrers, straws so that they can assemble and disassemble the groupings as needed. That is not to say that students need to build the number "from scratch" for every calculation. They can, or they can use materials that they have already bound and stored in the classroom/student toolbox as they would do with base 10 blocks. The representation of ten should be scaffolded so that student models reflect their understanding of the value of ten before progressing to using a line to represent it. Representatively, I would recommend ten frames, scaffolding with rectangles to reflect the bundle of manipulatives. 

Second Grade Questions

Question	Answer
2.DPSR.1.1, Is this 2nd grade indicator limited to categorical data? If so, are dot plots used to represent both numerical and categorical data? Our understanding is that dot plots are shown on a number line that displays numerical data. In addition, the insight for 3.DPSR.1.1 states that dot plots are used to represent numerical data, but not categorical data. If 2.DPSR.1.1 is limited to categorical data, how do we address dot plots if they only represent numerical data?	While categorical data can be represented using bar graphs and picture graphs, and numerical data can be represented using dot plots and bar graphs, these are not intended to be limitations to the types of data that can be represented using those graphs.
2.MGSR.1.2 is word form for time still included? Ex. Half past two, quarter till three	While this indicator does not require students to use those specific terms, it is encouraged to introduce this vocabulary to students as appropriate.

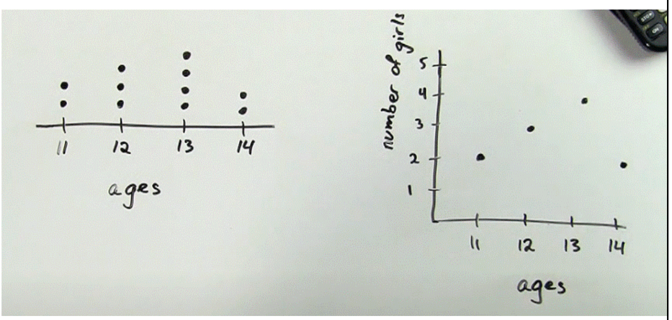
Question	Answer
2.PAFR.1.5 Add and subtract number combinations flexibly and accurately within 20. What if a 2nd grader is only able to count all and count on to add and subtract within 20. Is that considered proficient or is there an expectation for increased flexibility in employing more efficient strategies, such as derived fact strategies (doubles plus one, making a ten, decomposing/composing addends, etc.)?	The indicator insights state that fluency in 2nd grade is demonstrated through the knowledge of how numbers can be composed and decomposed and should lay the foundation for student use of derived facts later. If strategies such as counting on and counting all don't support this, they are not modeling fluency to the intent of the standard.
2.PAFR.1.9 Find the total number of objects arranged in equal groups or in a rectangular array and write an addition equation to express the total as a sum (up to 25) of equal addends.  Are 4+4+4=12 and 3+3+3+3=12 both acceptable addition equations for the array pictured above?	For consistency purposes and mathematical concepts that they will explore later in their mathematical journeys, the above array should represent only the first equation.
2.PAFR.1.9 Find the total number of objects arranged in equal groups or in a rectangular array and write an addition equation to express the total as a sum (up to 25) of equal addends. The insight states "should not be focused on as a solution strategy for multiplication problems." To clarify, does this mean multiplication equations should not be used?	That is correct. The focus should be on repeated addition.
2.PAFR.2.2 Create, describe, and extend an appropriate one-step rule for number patterns using addition and subtraction within 100. Indicator insight: Provide practice with describing and extending given number patterns before students are asked to create their own. Should the rule be given to students to extend the pattern, or do the students have to figure out the rule AND extend the pattern?	We have determined that the intent of the indicator is that students will be able to create, describe, and extend a number pattern, and that these skills should be done separately as well as jointly. Specifically, students should be able to extend a pattern based on a provided rule, and students should be able to extend a pattern based on a rule that they themselves have determined.

Question	Answer
In talking to teachers, the concept of line plot and dot plot has come up. I know in the past, dot plots have been used in secondary, but our teachers are used to the term 'line plot'. With the new standards using 'dot plot', I wanted to make sure my thinking was correct to support them moving forward. I searched for an image to better explain in less words:  My thought is the left is a dot plot, with each value represented, where the right is a line plot with one plot representing a given value. I also considered line pots to be different from line graphs showing trends over time, often connected with a line, but I didn't want to get lost in the weeds.	To answer your question, a line plot and a dot plot are two names for one graph type. Both include a horizontal line (x-axis) labeled with values, with points or “dots” plotted above the values. They differ from a line graph just as you described. However, it is unusual for a dot plot or a line plot to include a vertical line (y-axis) since the dots themselves represent data points that can be counted to determine how many times that value occurs in a data set, which makes a labeled y-axis redundant. The graph on the right would be considered a scatterplot.

Elementary (3-5) Questions

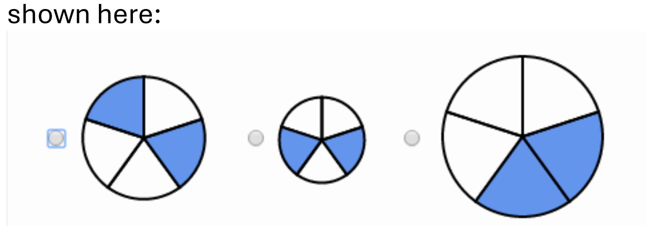
General Questions

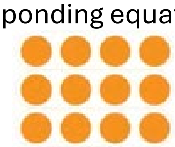
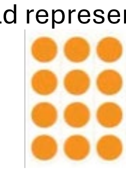
Questions	Answer
What is the Office of Assessment and Standards position on memorizing multiplication facts?	The South Carolina Department of Education Office of Assessment and Standards supports students knowing their facts from memory as opposed to memorizing them. Knowing from memory requires students to be able to recall the facts as needed, whereas rote memorization is short term. It is our task to create mathematicians that are fluent with their basic facts (addition, subtraction, multiplication, and division). Fluency is not speed. Fluency requires students to be accurate, efficient, and flexible. Our goal is for mathematicians to see relationships between numbers and facts and to use what they know to figure out what they do not know. In addition, we do not recommend that timed tests be used assess basic facts. Research shows that timed tests cause many students to develop math anxiety and a disdain for math. Being fast at math is not equivalent to being good at math. There has been research conducted by NCTM, Jo Boaler, Jennifer Bay-Williams, Gina Kling, Authur Baroody, and countless others that supports the SCDE's stances. Jennifer Bay-Williams and Gina Kling state, "Standards acknowledge that it is through application of strategies that a student develops fluency, and it is through the use of strategies that students come to know their facts or develop automaticity" (2019). This is the goal for our mathematicians in South Carolina. In addition, the 2023 Standards are written to build conceptual understanding (which requires students to make connections between ideas). When taught conceptually and with opportunities for students to see relationships and patterns, fact fluency will develop and ultimately, students will become automatic with their facts, able to recall from memory.
If students will be shown rulers where inches are only divided into halves, fourths, or eighths, I would like to try to find rulers for them to use that will "match" what they will see on SC Ready. Do you happen to know these new measuring indicators will be assessed?	Students will see a variety of different rulers depending on what the question is asking for. In the classroom, I would be sure to expose students to rulers with halves, fourths, and eighths, and scaffold as they see fit to being introduced.

Questions	Answer
In talking to teachers, the concept of line plot and dot plot has come up. I know in the past, dot plots have been used in secondary, but our teachers are used to the term 'line plot'. With the new standards using 'dot plot', I wanted to make sure my thinking was correct to support them moving forward. I searched for an image to better explain in less words:  My thought is the left is a dot plot, with each value represented, where the right is a line plot with one plot representing a given value. I also considered line pots to be different from line graphs showing trends over time, often connected with a line, but I didn't want to get lost in the weeds.	To answer your question, a line plot and a dot plot are two names for one graph type. Both include a horizontal line (x-axis) labeled with values, with points or "dots" plotted above the values. They differ from a line graph just as you described. However, it is unusual for a dot plot or a line plot to include a vertical line (y-axis) since the dots themselves represent data points that can be counted to determine how many times that value occurs in a data set, which makes a labeled y-axis redundant. The graph on the right would be considered a scatterplot.

Third Grade Questions

Questions	Answer
3.DPSR.1.1 specifically mentions categorical and numerical data. Is 3rd grade the first-time students start collecting and organizing numerical data?	No, 2.DPSR.1.1 includes both categorical and numerical data. To create a dot plot, numerical data must be used.
3.MGSR.2.4, are students expected to measure from any starting point on the ruler to measure length, or should they start at 0? Or both options?	They should be able to do both. When measuring the length of an object, students should understand that the measurement represents the number of equal-length units that fit alongside the object without any gaps or overlaps. With this understanding, students should be able to provide the correct measurement even if the starting point is not at 0.

Questions	Answer
I wanted some insight on how you all differentiate between standards 3.NR.1.1 and 3.NR.1.2. I'd also like your general thoughts on the terms compose and decompose from indicator 3.NR.1.2. For example, what are the ways you would decompose the number 7,123. 3.NR.1.1 Read, write, and represent whole numbers through the thousands period (0 to 999,999) on a number line and in standard, base ten language, word, and equations in expanded form. 3.NR.1.2 Compose and decompose 4-digit whole numbers in multiple ways using thousands, hundreds, tens, and ones.	3.NR.1.1: My understanding of this indicator, along with its insight, is that these representations are all fairly straight forward. For example, 7,123 would be decomposed as 7,000 + 100 + 20 + 3, or 7 thousands 1 hundred 2 tens and 3 ones. 3.NR.1.2 is more complex as it encourages students to explore the additional ways that a 4-digit number could be composed and decomposed, and this includes regrouping. For example, in addition to the decomposition stated above, 7,123 could be decomposed as a) 71 hundreds 2 tens 3 ones b) 7,123 ones, or c) 71 hundreds 23 ones d) 6 thousands, 11 hundreds, 2 tens, 3 ones e) 7 thousands, 11 tens, 13 ones etc. etc. These would be accompanied by a mixture of concrete manipulatives, representational drawings, and equations that model how the parts can be combined to compose the given number (in this case 7,123).
3.NR.2.5 Recognize two fractions are equivalent **based on the same size whole**. Limit denominators to 2, 3, 4, 6, and 8, and fractions should be limited to fractions between 0 and 1. The fraction ¼ is equivalent to the fraction 4/16 regardless of the whole upon which they are based. Saying "based on the same sized whole" is really saying that the areas of each whole are equivalent which is a different concept. ¼ of a 16 is not the same as 4/16 of 100, however the fractions ¼ and 4/16 are equivalent. Saying "based on the same sized whole" makes it a multiplication problem and implies that fractions are not equivalent when they are not based on the same sized whole.	The focus of this indicator is numerically equivalent fractions, not the size of the whole from which they originate. Unless otherwise specified, it is generally understood that fractions are based on the same sized whole. Equivalent fractions can be modeled using number lines, fraction circles/squares, linking cubes, pattern blocks, area models, fraction strips, Cuisenaire rods, etc. Students should also be exposed to models of various sizes so that they can recognize that fractions are relative to their wholes, such as those shown here:  The recognition of the relationship between a fraction and its whole is foundational for fraction conceptualization.

Questions	Answer
3.PAFR.1.2 Multiply whole numbers (factors 0–10) and divide whole numbers (divisors 1–10) using a model and write a corresponding equation. Do rows have to be listed as the first factor in a multiplication equation? The example in the insight of when models and arrays are shown, is 3x3. Will you please provide an example that has two different factors, such as 3x4?	The convention is rows x columns. 3 rows of 4 would represent 3 x 4; whereas 4 rows of 3 would represent 4 x 3. The same would be true if objects were placed into equal groups. The first factor would represent the number of groups, whereas the second factor would represent the number in each group. For division, the divisor can be either the number of groups or the number in each group. If there were 3 groups of 4 (or 3 rows of 4), an equation could be written as either 12 ÷ 3 =4 or 12 ÷ 4 = 3. The expression or equation should match the model.
3.PAFR.1.2 Multiply whole numbers (factors 0–10) and divide whole numbers (divisors 1–10) using a model and write a corresponding equation. Do rows have to be listed as the first factor in a multiplication equation? For instance, when considering the commutative property, are 3x4 and 4x3 both acceptable corresponding equations for the array pictured here? 	The insight states "the convention is that 3 x 3 is three groups of three. It is also an array with three rows and three in each row." It lists the number of rows first rather than the columns and does not go on to state that it could also be 3 columns and 3 rows; therefore, in the first array the correct expression would be 3 rows of 4, 3 groups of 4, or 3 x 4. The array below would represent 4 rows of 3, 4 groups of 3, or 4 x 3. 
Standard 3.PAFR.1.3 requires students to multiply two whole numbers from 0 to 100 and divide using related facts flexibly and accurately. Do the numbers 0-100 refer to the product or factors between 0 and 100 (ex.99x45)?	Indicator 3.PAFR.1.3 reads: "Multiply two whole numbers from *0 to 10* and divide using related facts flexibly and accurately."
3.PAFR.1.3 Multiply two whole numbers from 0 to 10 and divide using related facts flexibly and accurately. In the 3rd grade insight, several derived facts strategies are shared as examples and "efficiently" is mentioned. Are students who are using count all and skip counting strategies considered "flexible" or do they need to also use some more efficient derived fact strategies in order to be proficient? What if students are using a mix of skip counting and derived fact strategies? Is that considered proficient?	Since the insights specifically state decomposing a factor, dividend/divisor into facts that students do know (derived facts), it is safe to assume that it is a key component to proficiency.

Questions	Answer
When should students begin to use the word "angle" to describe polygons based on the 2025 standards?	Students are officially introduced to angles as an attribute in 3rd grade. **3.MGSR.3.1** Describe and draw right, acute, obtuse, and straight angles. Identify these angle types in two-dimensional figures including triangles and quadrilaterals. Insights: *Recognize angles as attributes of geometric shapes formed when two rays share a common endpoint and create a space between the rays. An acute angle has rays that are closer together. An obtuse angle has rays that are farther apart.* *Use everyday objects with a square corner (such as index cards, sticky notes, notebook paper) as a reference or benchmark for a right angle. Use the straight edge of a sheet of paper as a benchmark for a straight angle. The expectation is not to measure angles with a protractor.*

Fourth Grade Questions

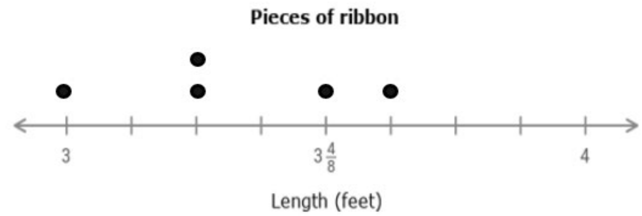
4.DPSR.1.2 Should mixed numbers be included as part of the data presented?	Data could include mixed numbers.
4th Grade for perimeter and area- Do they still solve problems that include given the area or perimeter, what are the sides (length or width)? Ex. The perimeter is 24 inches. The length is 10. What is the width? The area of the square is 64 inches squared. What is the length of each side?	Yes, the indicator states that students will be finding unknown side lengths. 4.MGSR.1.1 Apply perimeter formulas for rectangles to solve real-world situations including finding the perimeter, given the side lengths, and finding an unknown side length.
4.MGSR.1.2 Apply area formulas for rectangles to solve real-world situations. Use square units to label area measurements. Does this indicator include finding unknown side lengths?	Yes. It is expected for students to be given the area and a side length, then have to find the missing side length.

4.MGSR.2.1 Calculate the value of a collection of coins and bills in real-world situations to determine whether there is enough money to make a purchase. Justify based on comparison of money amounts. What are the limits on the amount given in the collection of coins and bills?	In second grade, 2.MGSR.1.3 has students determining the value of mixed sets of coins within $1 OR bills within $100. In third grade, students begin writing the value of coins within $5 using decimal notation (3.MGSR.2.1). In fifth grade, there is no specific standard regarding money, but students are required to add and subtract decimal values to the hundredths 5.PAFR.1.3. A reasonable expectation from an assessment perspective then is to have students determine the value of any collection of coins AND bills, with the value of the coins not to exceed $5 and the value of bills not to exceed $100. When instructing I may include values greater than $100 especially if I am focusing on the comparison over the calculation.
4.MGSR.3.2 Classify quadrilaterals in a hierarchy based on their shared attributes. Should the hierarchy include kites and isosceles trapezoids?	Yes!
4.NR.2.2 Compare decimal numbers to the hundredths using the benchmarks 0, 0.5, and 1.0, concrete area, and linear models. Use the symbols for is equal to (=), is less than (<), and/or is greater than (>). The indicator insight says to compare whole numbers to decimals and decimals to decimals. Does this indicator include mixed decimals, such as 4.56? What is the limit for the whole numbers that should be included? Up to 999,999,999 to match the expectation of 4.NR.1.1. or are the whole numbers limited to a smaller range?	Because the indicator states using concrete area models, the decimal numbers being compared should be manageable. It would not be realistic to have a student model 565,232.05.
4th NR.2.4 Represent the composition and decomposition of fractions with the same denominator, including mixed numbers and fractions greater than 1, using multiple representations. Limit fractions to denominators of 2, 3, 4, 5, 6, 8, 10, 12, 20, 25, 50, and 100. **4th PAFR.2.1** Use a strategy to accurately compute sums and differences of fractions with like denominators and justify the reasonableness of the answer. Limit denominators to 2, 3, 4, 5, 6, 8, 10, 12, 25, and 100. Do the two standards above mean that students do or do not add mixed numbers and improper fractions in 4th?	Students do add mixed numbers and fractions greater than one. See the following indicator: 4.PAFR.2.2 Use fraction and decimal equivalencies to add and subtract tenths and hundredths, to include mixed numbers and fractions greater than 1.

Am I reading this standard correctly? 4th graders will multiply up to 4 digits by one- and two-digit numbers. 4.PAFR.1.3 Decompose numbers by the value of each digit to multiply whole numbers up to four digits by a one-digit number and two-digit whole numbers. Just wondering because this is the 5th grade standard: 5.PAFR.1.1 Use a strategy to compute the product of a two- or three-digit factor times a two-digit factor to include real-world situations.	Yes. 4th graders will multiply up to 4 digits by one- and two-digit numbers using place value strategies to include, but not limited to, the area model of multiplication. The focus in the 4th grade indicator is on place value strategies and decomposing numbers by the value of each digit. The focus in the 5th grade indicator is broadened to include other strategies and real-world contexts.
Looking ahead to next year, we wanted to see if mixed numbers are included in this standard or if it is solely just fractions with like denominators. The indicator insight did not specify. 2025 Standard: 4.PAFR.2.1 Use a strategy to accurately compute sums and differences of fractions with like denominators and justify the reasonableness of the answer. Limit denominators to 2, 3, 4, 5, 6, 8, 10, 12, 25, and 100.	For 4.PAFR.2.1, fractions with like denominators could include fractions greater than 1.
4th PAFR- 3.2 Describe and extend a numerical pattern that follows a rule using function tables and real-world situations. *Does this mean not nth pattern? It was specifically stated in the old standards, but does the new standard consider that part of extension?	2015: 4.ATO.5 Generate a number or shape pattern that follows a given rule and determine a term that appears later in the sequence. 2025: 4.PAFR.3.2 Describe and extend a numerical pattern that follows a rule using function tables and real-world situations. The terms "generate" and "determine a term that appears later in the sequence" from 2015 fall under extending a numerical pattern.
In looking at 4.PAFR.3.2 with a team, there was discussion and wondering does the numerical patterns include two step patterns or just one step?	4.PAFR.3.2 is limited to one-step patterns.
4.PAFR.3.4: Solve two-step, real-world situations using the four operations involving whole number answers. Represent the problem using an equation with a variable as the unknown in any position. Can you tell me if students are expected to use a single variable or two variables when writing equations for two-step problems?	Fourth grade students are expected to encounter and work with only one variable in any given situation and/or expression. It is not explicitly stated in the indicators or insights, but these statements do refer to “a variable” and “the unknown,” which uses singular language as opposed to plural language. Also, students in sixth grade will be expected to work with more than one variable, so it is considered reasonable that fourth grade students will work with only one variable in preparation for more to come in middle school.

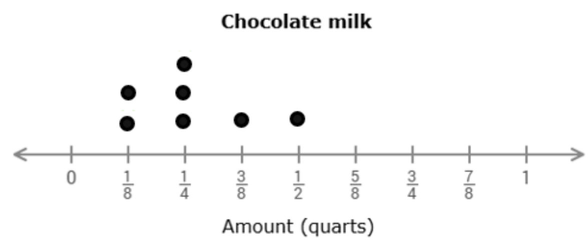
Fifth Grade Questions

<table>
<tr>
<td>5.DPSR.1.2 the standard states "Solve two-step, real-world situation" Can I please see examples of what two-step situations.</td>
<td>Sandeep is making bows to decorate his holiday gifts. He opens a new roll of ribbon and cuts a piece for each bow. This line plot shows the length of each piece of ribbon he cuts,



The roll had 20 feet of ribbon to start. How much ribbon is left on the roll now?

On Monday, Mr. Armstrong bought a 2-quart bottle of chocolate milk. Throughout the week, he drank several glasses of it. This line plot shows how much he drank each time.



How much chocolate milk is left in the bottle?</td>
</tr>
<tr>
<td>5.DPSR.1.3 In the past 5th grade had Line plots and used x's for data. Dot Plots: Is this dot representation only or x included as well?</td>
<td>A line plot and a dot plot are two names for the same graph type. Therefore, “x’s” can be used to represent data as well.</td>
</tr>
<tr>
<td>5.DPSR.1.3...does this indicator focus on students just analyzing/interpreting/predicting from graphs or will the creation of graphs also be required or assumed to be created?</td>
<td>5.DPSR.1.3 focuses solely on the student's ability to analyze data to make predictions and draw conclusions. Though students should be able to create most of the graphical displays mentioned based on previous experiences, this is not the expectation here.</td>
</tr>
<tr>
<td>5.MGSR.1.1 Solve problems involving area and perimeter of composite figures by decomposing with rectangles.

Are the side lengths limited to whole numbers or are side lengths that include fractions, decimals, and/or mixed numbers an expectation of this indicator?</td>
<td>In state assessments, side lengths will be limited to whole numbers when calculating area. Side lengths can include fractions and mixed numbers when calculating perimeter. In classroom instruction, fractions and mixed numbers can be used for calculating both area and perimeter.</td>
</tr>
</table>

5.MGSR.2.1 Given the unit equivalencies, convert within a single system of measurement from larger units to smaller units and smaller units to larger units for length, weight, liquid volume, and time. Use these conversions in solving real-world situations. Limit units to inches, feet, yards, ounces, pounds, fluid ounces, cups, pints, quarts, gallons, seconds, minutes, hours, milli-, centi-, kilo-, and base units (grams, liters, meters). Are the measurements limited to whole numbers or are measurements that include decimals, fractions, and mixed numbers an expectation of this indicator?	Students could be exposed to standard units that include fractions such as ½. For example: It takes 2 ½ hours to drive to Myrtle Beach. How many minutes would that be?
5.NR.1.1 Read, write, and represent multi-digit numbers from 0 to 999 with decimals to the thousandths place. Use pictorial, word, standard, or expanded form with fraction or decimal notation. Q: Which expanded form types are expected at each grade level? Specifically with decimals and fractions.	In 1st through 5th grade, students are expected to be exposed to expanded form where the equation is not in ascending or descending form. In 1st through 3rd grade, the Numerical Reasoning indicators for reading, writing, and representing whole numbers in expanded form will be done using the format seen here: a. 4,000 + 300 +20 +8 b. 20 + 4,000 + 8 + 300 c. 8 + 20 + 300 + 4,000 In 2nd and 3rd grade, students will read, write, and represent whole numbers in both expanded form AND base ten language. For example: **Base ten language**: 4,328 equals 2 tens + 4 thousands + 8 ones + 3 hundreds **Expanded form**: 4,328 equals 20 + 4,000 + 8 + 300. In 4th grade, students transition from base ten language and the expanded format seen in 2nd and 3rd grade to reading/writing/representing numbers in expanded form "through the millions period," (4.NR.1.1) as multiplicative expressions, as seen here: a. (4 x 1,000) + (8 x 1) + (3 x 100) + (2 x 10) b. (4 x 1,000) + (3 x 100) + (2 x 10) + (8 x 1) c. (2 x 10) + (8 x 1) + (4 x 1,000) + (3 x 100) In 5th grade, students will begin reading, writing, and representing multi-digit numbers with decimals to the thousandths place, using (in part) "expanded form with fraction or decimal notation." So, 4,328.17 could be read/written/represented in expanded form in multiple ways, including but not limited to: a. (4 x 1,000) + (8 x 1) + (1 x 1/10) + (7 x 1/100) + (3 x 100) + (2 x 10) b. (4 x 1,000) + (3 x 100) + (2 x 10) + (8 x 1) + (1 x 1/10) + (7 x 1/100) c. (4 x 1,000) + (1 x 0.1) + (7 x 0.01) + (3 x 100) + (2 x 10) + (8 x 1)

For 5.NR.1.2: What is the expectation for the range for how many times a digit may move? Does this only apply to the digits in the whole number or both the whole number and the decimal digits? Does the range determined for 5.NR.1.2 also apply to 5.NR.1.4? If not, what is the range for 5.NR.1.4?	5.NR.1.2, 5.NR.1.4, and 5.MGSR.2.1 are used to determine the response. The expectation for the range for how many times a digit may move is not limited, and this applies to whole and decimal digits in the multi-digit number. Limitations may come from real-world context, such as converting kilograms to milligrams, which requires a digit to shift 6 places. Yes, since these indicators incorporate decimals, it is safe to assume that the same parameters apply for 5.NR.1.4.
5.NR.1.2-The standard also says moves one or more places, but the indicator only identifies 10xs and 1/10th. Do you have any thoughts on how far we should go? (Historically I have accessed the pattern through 1000x and 1/1000, but we have discussed more shifts).	Students should be exposed to and have practice with explaining the movement of a digit from one "end" of a multi-digit number to the other "end," and every possibility in between. When students recognize the place value pattern and can explain the movement and impact of a digit moving 2 or 3 places, they are likely to be ready to make the connection to longer distance movements. The insight that identifies 10xs and 1/10th is intended as scaffolding to the full intent of the indicator.
5.NR.1.2-What exactly does the indicator mean by "make the connection between decimal notation and place value?" Are we talking about the number 45.67, where the 6 in the tenths place is 0.6 or 6/10, the 7 is 0.07 or 7/100 and .67 is 67/100?	The indicator is referring to the change in placement of the decimal. Students will be expected to recognize the value of a digit one or more places to the left or right in the base ten system if the decimal changes and explain why it is different from the value it had prior to the change.

<table>
<tr>
<td>5.NR.1.2-The standard says explain, the indicator says recognize. Could you give some examples of questions or a way to check for understanding with explain and with recognize?</td>
<td>The way the 2025 standards were written, the indicators are the main idea, if you will. If we continue with this comparison, the insights are the supporting details. The insights here are intended to support the indicator, so stating that students need to recognize a digit’s value in different places within a number is given because it is a prerequisite to explaining the change in value.
An example of explaining how the value changes would be using sentence stems with students:
Ex. The value of the 5 in 5,983 is __________ (times greater than/times less than) the value of the 5 in 75. I can justify my reasoning because I know that _____.
The goal here would be that students could fill in the number in the first blank and circle the “times greater” or “times less” portion. Then, they would also explain their thinking. Below is an example of the completed sentence stem.
Ex. The value of the 5 in 5,983 is 1,000 times greater than the value of the 5 in 75. I can justify my reasoning because I know that the 5 in 5,983 is in the thousands place and the 5 in 75 is in the ones place. 1s x 1000 = 1000s
(This is just an example. There are LOTS of ways a student might explain their reasoning here!)
An example of recognizing the shift in a digit’s value would be having students create and/or complete growing place value patterns for a digit, like these:
<table>
<tr><th>Example A</th><th>Example B</th><th>Example C</th></tr>
<tr><td>5 x _____ = 5</td><td>5 x 1 = _____</td><td>5 x _____ = 5</td></tr>
<tr><td>5 x _____ = 50</td><td>5 x 10 = _____</td><td>5 x 10 = _____</td></tr>
<tr><td>5 x _____ = 500</td><td>5 x 100 = _____</td><td>5 x _____ = 500</td></tr>
<tr><td>5 x _____ = 5000</td><td>5 x 1000 = _____</td><td>5 x 1000 = _____</td></tr>
<tr><td>5 x _____ = 50000</td><td>5 x 10000 = _____</td><td>5 x _____ = 50000</td></tr>
<tr><td>5 x _____ = 500000</td><td>5 x 100000 = _____</td><td>5 x100000 = _____</td></tr>
</table>
</td>
</tr>
</table>

In 5th grade, they do not compare decimals, correct? There is not a standard for it. Just clarifying.	Correct. Comparing decimals occurs in 4th grade and will be brought back in 6th. 5th grade students will compare fractions and mixed numbers. **4.NR.2.2** Compare decimal numbers to the hundredths using the benchmarks 0, 0.5, and 1.0, concrete area, and linear models. Use the symbols for is equal to (=), is less than (<), and/or is greater than (>). **5.NR.2.1** Compare fractions and mixed numbers with like and unlike denominators of 2, 3, 4, 5, 6, 8, 10, 12, 20, 25, and 100 using equivalence to create a common denominator. Use the symbols for is less than (<), is more than (>), or is equal to (=) to record the comparison.
5.PAFR.2.1 Use a strategy to compute sums and differences of fractions and mixed numbers with unlike denominators and justify the sum or difference to include real-world situations. Limit denominators to 2, 3, 4, 5, 6, 8, 10, 12, 20, 25, 50, and 100. Q: Does this mean the sums and differences must have this denominator?	The list of denominators is meant for the initial terms in an addition or subtraction item. i.e., the denominator 24 is acceptable in an answer option. Do not have students simplify fractions with denominators that are not listed.
5.PAFR.2.2 Use a strategy to multiply a fraction by a fraction or a fraction by a whole to include real-world situations. Limit denominators to 2, 3, 4, 5, 6, 8, 10, and 12. The insight says, "Initially, models should be represented before moving to the procedure of multiplying fractions." Is the procedure of multiplying fractions a strategy that should be included when presenting this indicator or is the strategy of using models sufficient to meet the expectations of this indicator?	Using models as a strategy is sufficient. The expectation should be that this is taught with visuals/models before moving to an algorithm. It is important that mathematicians have a solid conceptual understanding before jumping to a procedure.

5.PAFR.2.2 Use a strategy to multiply a fraction by a fraction or a fraction by a whole to include real-world situations. Limit denominators to 2, 3, 4, 5, 6, 8, 10, and 12. The insight says, “Fractions should include standard fractions, mixed numbers, and fractions greater than 1.” Does the expectation of this indicator include a mixed number by a mixed number, a fraction greater than 1 by a fraction greater than 1, and a mixed number by a fraction greater than 1?	The intent of this indicator insight is that one of the referenced fractions can be either a standard fraction, a mixed number, or a fraction greater than 1. It is not considered developmentally appropriate for students at this grade level to be expected to multiply two mixed numbers, two fractions greater than 1, nor a mixture of these. Therefore, students are expected to multiply a: • Standard fraction by a whole number • Mixed number by a whole number • Fraction greater than 1 by a whole number • Standard fraction by a standard fraction • Standard fraction by a mixed number • Standard fraction by a fraction greater than 1 • Whole number by a standard fraction Students are NOT expected to multiply a: • Mixed number by a mixed number • Fraction greater than 1 by a fraction greater than 1 • Mixed number by a fraction greater than 1
Does 5.PAFR.3.4 include only whole numbers for all operations or does it also include fractions with all operations and/or decimals with all four operations?	Use other indicators from 5th grade to help determine this. 5.PAFR.2.1 is computing sums of fractions and mixed numbers with unlike denominators. 5.PAFR.2.2 is multiplying fractions by fractions or whole numbers. 5.PAFR.2.3 is division with whole numbers and unit fractions or vice versa. So yes, utilize the parameters set by other grade level indicators to set limits on this indicator as well.

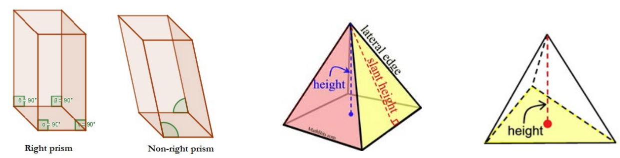
Middle Level (6-8) Questions

General Questions

Questions	Answer
What is the SCDE definition of trapezoid?	The current version of the 2025 SC CCR Mathematics Standards, which was emended in June 2025, now contains the definition of trapezoid in the indicator insights. After discussion with the Development Team, we will go forward using this definition: "A trapezoid is defined as a quadrilateral with exactly one pair of parallel sides."
I have questions concerning the calculator portion of the test and what indicators may allow students to use calculators.	From the development team: "Note: Any indicator may be assessed on either section of the test—unless the indicator specifically designates otherwise." What this means is that any indicator can be assessed on either section of the test. Just know that they won't use cumbersome numbers on the non-calculator portion of the test.
How do we distinguish between complement and complementary?	When thinking about complement, we are referring to "the other piece." With the complementary events in probability, we refer to the part that is "not" what the original event is. For example, the complement to choosing red is "not choosing red." When our focus is on complementary angles, "the other piece" is the part that helps add up to 90 degrees. An example here can be the complementary angle for a 35-degree angle is 55 degrees because 35 + 55 = 90.

Sixth Grade Questions

Questions	Answer
Can you explain why the indicators in 6.DPSR have limited denominators and graphs?	Denominators are limited in 6th grade indicators to match the 6.NR.1.1 to maintain consistency. We also limited the types of graphs to 1 or 2 per grade level so that students would have a better chance of mastery. The indicators were developed to deepen the understanding of reasoning around data and probability.
In 6.DPSR.1.3 (Use the shape of the graph to determine whether median or mode best describes the data set), when it says, "the graph," what types of graphs does the standard mean? Box plots? Dot plots? Others? The indicator insight does not specify.	All graphs from previous grade levels can be used, such as bar graphs, line graphs, and dot plots. Box plots are taught in 6th grade, so those are also good graphs to use.

Questions	Answer
What does “equally likely” mean in 6.DPSR.2.1?	The indicator insight was updated to replace “equally probable” with “equally likely” as this is a more common term. It means that the events will have the same probability of occurring.
In 6.MGSR.1.3, how do we define the three-dimensional shapes students are responsible for?	Students are only responsible for learning about “right” prisms and “right” pyramids, not oblique prisms or pyramids. Right prisms can be defined as prisms whose bases are congruent and parallel, and all the faces meet the base at right angles. Right pyramids can be defined as pyramids made with an apex directly over the center of the base that meets the base at a right angle with the center of the base. 
How should we determine the measurements of supplementary angles? Must we only use two angles? (6.MGSR.2.1)	Although the definition of supplementary angles states “Two angles whose measurement add up to 180 degrees.”, when you are working with supplementary angles, it is possible to have problems where students will have to add 2 or more angles together to determine the rest of the supplementary angle measurement.
6.NR.2.3 The Indicator Insight says to explain how integers and rational numbers fit into the Real Number System. How in depth are 6th grade students expected to know?	The Real Number System is not truly taught until 8th grade, but we want students to understand where integers and rational numbers fit in context with each other and within the Real Number System. You can talk about the Real Number System and show them how the parts all fit together, but students are not required to know the hierarchy in 6th grade.
Why have integer operations moved to 6^{th}? (6.PAFR.3.5)	The committee felt that moving these operations down to 6th grade would allow students in 7th and 8th to gain a deeper understanding of working with rational numbers. It would also give them more time to practice using these operations before they apply them in the concepts taught in 7th and 8th grades.

Questions	Answer
Clarify the extent of 6.PAFR.3.5 integer rules being taught and incorporated into expressions and equations. 6.PAFR.3.5 specifically says to apply operations with integers and 6.PAFR.3.6 & 3.7 limits us to operations with positive rational numbers. The 2015 SCCCR standards alignment on the right did not cross out rational numbers in the correlating standards.	The integer rules should be discovered in 6th through using concrete models (manipulatives like two-color counters, algebra tiles, etc.). As students discover the rules, then together you can formalize the rules with them. Integer operations can then be incorporated into your work with expressions and equations, along with positive rational number operations. Although the indicator states “positive rational numbers” that doesn’t mean you shouldn’t incorporate some integer operations into those indicators to prepare them for 7th grade. The crosswalks show how the 2025 indicators incorporate parts of the 2015 standards, not necessarily all of the parts it is linked to. Focus on what the 2025 indicator says and not the old standard(s) it is attached to. Positive rational numbers are a part of rational numbers, so we could not cross that out from the old standards.

Seventh Grade Questions

Questions	Answer
How do we define sample space? (7.DPSR.2.1 and 8.DPSR.2.1)	Sample space is the set of all unique outcomes. Since it is referring to “set” that would mean that you should not repeat any of the outcomes in your list for sample space.
With 7.MGSR.2.3, can we have more than 2 lines or rays intersecting?	When teaching and assessing this indicator, it is possible to have more than 2 lines intersecting at a point. There could also be 2 lines and a ray intersecting at that point to create the needed angle measurements for supplementary and complementary relationships.
For 7.PAFR.2.1 is graphing inequalities on a number line included in this indicator?	Yes, since students graphed solutions to inequalities on a number line in 6th grade, 7th grade students should also graph the solutions to inequalities on a number line. It was broken up over 2 indicators in 6th to make sure it was fully taught.

Eighth Grade Questions

Questions	Answer
What is the difference between 8.DPSR.1.2 and 8.DPSR.1.4?	8.DPSR.1.2 focuses on two data sets from different populations while 8.DPSR.1.4 focuses on two data sets from the same population.

<table>
<tr><th>Questions</th><th>Answer</th></tr>
<tr><td>Are irrational side lengths acceptable to use when working with the Pythagorean Theorem in 8.MGSR.1.3?</td><td>Yes. Side lengths that contain radicals such as $4\sqrt{3}$ can be used as a side length within problems for this indicator.</td></tr>
<tr><td>Can a point be a geometric shape?</td><td>Yes, a point is considered a geometric shape and can be transformed within the limits of the indicators in the 8.MGSR strand.</td></tr>
<tr><td>For 8.PAFR 1.4 in addresses "intervals of increasing or decreasing" so does this imply we need to teach interval notation as this is not stated in the indicator insight since it shifted from Algebra I.</td><td>In the emended version of the standards document, it does mention that compound inequalities could be included with this indicator.</td></tr>
<tr><td>In 8.PAFR.2.1, the indicator doesn't say "write and solve" like previous grades. Are students expected to be able to write an equation from a real-world situation?</td><td>Yes, this is an expectation of this indicator that builds upon previous knowledge from earlier grades.</td></tr>
<tr><td>Can you assist me with the Indicator Insight? Teachers are asking why is using tables a part of the Indicator Insight. Thank you!

8.PAFR.2.2 Describe single-variable equations as having one solution, no solution, or an infinite number of solutions.

Indicator Insight: Students need to recognize the three types of possible solutions using tables, graphs, or equations.</td><td>Using tables is just one way to allow students to be able to substitute different values for the variable and observe the corresponding outputs. It can make it easier for students to spot patterns. It also allows students to test values to see if only one value makes the equation true, then it has one solution; if no value makes the equation true then, it has no solutions; if every value makes the equation true, then it has infinitely many solutions.

Tables can help students visualize how the left and right sides of an equation compare across multiple inputs. For example, if

$3x + 7 = x + 3$
<table><tr><th>x</th><th>3x + 7</th><th>x +3</th></tr><tr><td>-2</td><td>1</td><td>1</td></tr><tr><td>-1</td><td>4</td><td>2</td></tr><tr><td>0</td><td>7</td><td>3</td></tr><tr><td>1</td><td>10</td><td>4</td></tr><tr><td>2</td><td>13</td><td>5</td></tr></table>
To show students these equations have only one solution because the output values are the same at one point.
(-2,1)</td></tr>
</table>

Questions	Answer
8.PAFR.3.3: question about laws of exponents, are students expected to simplify coefficients? Like these: $\frac{5x^4}{10x^2}$ $\frac{-36x^2y}{6x^5y^3}$ $\frac{24a^2b^4c}{32a^3b^6c}$	In order to simplify fully, yes, the coefficients would need to be simplified.
How many standards does the 8th grade/Geometry combined course have to teach?	The compacted course for 8th grade and Geometry with Statistics has 53 total indicators, but most of the 8th grade indicators can be combined with the GS indicators when teaching.

High School (9-12) Questions

General Questions

Question	Answer
If a student has taken probability and statistics (at any level, CP or Honors) are they able to take the new statistical modeling class next year at either level?	Yes. Most of the Probability and Statistics standards moved to Geometry with Statistics and Algebra 2 with Probability. The Statistical Modeling course will be an application of statistics.
There is a new "Add Regression Tool" on the Desmos Graphing Calculator that comes up when you enter a table of data. Will this be available on the SC EOCEP testing Desmos calculator? (I can send a screenshot if necessary)	No. The South Carolina approved version of the Desmos calculator is located at this link: https://www.desmos.com/testing/southcarolina.

Geometry with Statistics Questions

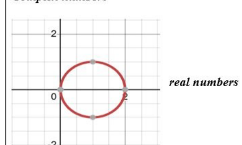
Question	Answer
In the 2025 Geometry standards the insights say, "low-tech approach", (ex. GS.DPSR.1.2) Does "low-tech approach" mean no calculator or just no programs like Desmos and Geogebra? GS.DPSR.1.2 If we are to use a "low tech approach" what is the expectation for students to compare their approximated line of best fit with the actual line of best fit?	Yes. This is very similar to the 2015 standard 8.DSP.2. The comparison should be student generated. There is often no "right" answer in statistics. Have students discuss which line is better. Could their line be used in a pinch? Low tech can mean generating by hand or not always focusing on a calculator or graphing tool.
Please clarify Geometry indicator GS.DPSR.1.3? What are statistical questions? How to determine significance? Are those r values?	This indicator is asking students to conduct an investigation. A statistical question is a question that involves a collection of data, expects variability in the responses, and requires some type of analysis to answer the question. Ex. How do monthly electric bills vary in Camden, South Carolina? Statistical significance is determined by the p-value. R-value is the correlation coefficient. The P-value is the probability value. That's the strength of evidence against the null hypothesis.
In GS.MGSR.3.1 it mentions "self-congruence", what does that mean?	In math, self-congruence means exactly what it sounds like: a geometric figure is congruent to itself. The reflexive property of congruence states that any geometric figure is always congruent to itself. Self-congruence and the reflexive property of congruence are utilized with rigid transformations (translations, reflections, and rotations) that maintain a figure's original size and shape. If a figure can be mapped onto itself through a series of rigid transformations, it exhibits self-congruence.

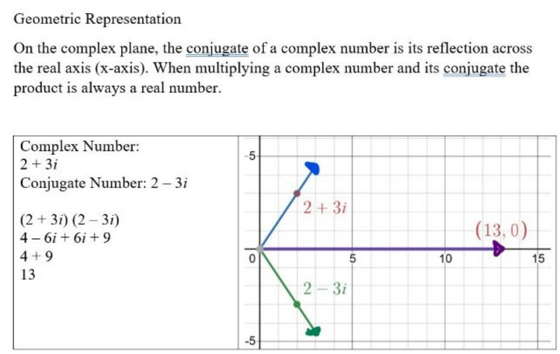
Question	Answer
Can you clarify GS.MGSR.3.3 insight? Insight: Develop definitions of rotations, reflection, and translation in terms of angles, circles, perpendicular lines, parallel lines, and line segments.	That is an old insight. Please be sure to download the emended version of the standards currently on the SCDE website. The new insight is: "Support justifications by sketches using dynamic geometry software."

Algebra 1 Questions

Questions	Answer
The Algebra 1 Test Data Review Report states under the Algebra heading, "Teach students how to find the discriminant and what it represents." The term discriminant is not provided in our 2015 SCCCR Math Standards for Algebra 1 so why are we expected for it to be taught as well as what it represents? What standard should we direct teachers to focus on that would be best for this note on the review? A1.AREI.4 mentions deriving the quadratic formula but limits solving to non-complex roots.	The suggestions that come from the content experts that are contained in the Data Review reports are just those, suggestions. These are that year's committee's recommendations for improving mathematics instruction and thus performance on the EOCEP Algebra 1 test. It is then up to teachers and districts to find the best place in their curriculum to incorporate those suggestions only if they choose to do so.
I had a question about standard A1.NR.2.1: How deep are we expected to go in Algebra I with simplifying cube roots. It seems from the indicator that we need to rationalize cube roots, but that seems like a lot, and I may be misunderstanding. Thank you for your clarification.	A1.NR.2.1 Translate between rational exponents and radical expressions of irrational and rational numbers. Use properties of addition, subtraction, multiplication, and division to simplify radical and rational expressions. Limit to square and cube roots. Based on the indicator, students will use all operations to simplify radical and rational expressions.
Algebra 1 teachers have asked this question about the 2024 Algebra 1 Data Review - Can we please get clarification on this note in the Functions section? Use guided notes to scaffold learning for exponential values. What does this mean?	The suggestion is to use guided notes as instructor-prepared handouts to provide all students with background information and standard cues with specific spaces to write key facts, concepts, and/or relationships during the lecture. The suggestion to use guided notes was made to help students identify when a situation is exponential vs linear or quadratic. A teacher could create a situation that is either exponential or linear and then remove the key words and values that make it such. A teacher could then ask half the room to fill in words and values that make the situation linear and the other half make the situation exponential.

Precalculus Questions

Questions	Answer
While deconstructing the Precalculus standards, our curriculum team was confused by the indicators under standard PC.NR.3. For PC.NR.3.1, to represent the complex numbers in polar form what does this mean and what formulas mentioned in the insight should be used? For PC.NR.3.2, how does the geometric representation relate to the product of a complex number and its conjugate?	PC.NR.3.1 Represent complex numbers on the complex plane in rectangular and polar form, including real and imaginary numbers, and explain why the rectangular and polar forms of a given complex number represent the same number. One of the formulas which is referred to in the insight refers to: ▪ Trigonometric Polar Form z = r (cos θ + *i* sin θ) ▪ Example z=2*i in polar form is z= 2(cos(π/2) + i sin (π/2))* ▪ Cartesian Form z = a + b*i* (Note: c*i*s θ is shorthand for cos θ + *i* sin θ) where r is the modulus and θ is the argument in radians) Formulas for Polar Form $z_1 = r_1 (\cos \theta_1 + \sin \theta_1)$ and $z_2 = r_2 (\cos \theta_2 + \sin \theta_2)$ multiplication formula $z_1 z_2 = r_1 r_2 [\cos(\theta_1 + \theta_2) + i \sin(\theta_1 + \theta_2)]$ division formula $\frac{z_1}{z_2} = \frac{r_1}{r_2} [\cos(\theta_1 + \theta_2) - i \sin(\theta_1 + \theta_2)]$ • A complex number in rectangular form is written as "a + b*i*", where "a" is the real number and "b" is the imaginary. Rectangular form is (a,b). • When plotted on a graph, the real part is represented on the x-axis and the imaginary part is represented on the y-axis, creating a point that visually represents the complex number. • "Rectangular form" and "Complex form" are related because the representation resembles the way points are plotted in a standard Cartesian coordinate system. PC.NR.3.2. How does the geometric representation relate to the product of a complex number and its conjugate? Examples: $z + \bar{z} = z \cdot \bar{z}$ Let $z = x + iy$, $\bar{z} = x - iy$ $x + iy + x - iy = (x + iy)(x - iy)$ $2x = x^2 + y^2$ $x^2 - 2x + y^2 = 0$ $x^2 - 2x + 1 + y^2 = 1$ $(x-1)^2 + y^2 = 1$ Center (1, 0) radius = 1 ***Circle*** $(x - a)^2 + (x - b)^2 = r^2$ where (a,b) is center and r =radius ***Complex numbers*** 

Same Question as above, continued: While deconstructing the Precalculus standards, our curriculum team was confused by the indicators under standard PC.NR.3. For PC.NR.3.1, to represent the complex numbers in polar form what does this mean and what formulas mentioned in the insight should be used? For PC.NR.3.2, how does the geometric representation relate to the product of a complex number and its conjugate?	 Geometric Representation On the complex plane, the conjugate of a complex number is its reflection across the real axis (x-axis). When multiplying a complex number and its conjugate the product is always a real number. Complex Number: $2 + 3i$ Conjugate Number: $2 - 3i$ $(2 + 3i)(2 - 3i)$ $4 - 6i + 6i + 9$ $4 + 9$ 13

Statistical Modeling Questions

Questions	Answer
Can you please explain the difference between SM.DPSR.2.4 and SM.DPSR.2.5, including the differences between the indicator insights?	2.4 is asking for questions answered either by a regression analysis (linear, quadratic, exponential, etc.) or a Chi-Square test for categorical data. 2.5 is only for questions answered by regression analysis such as Analysis of Variance (ANOVA)