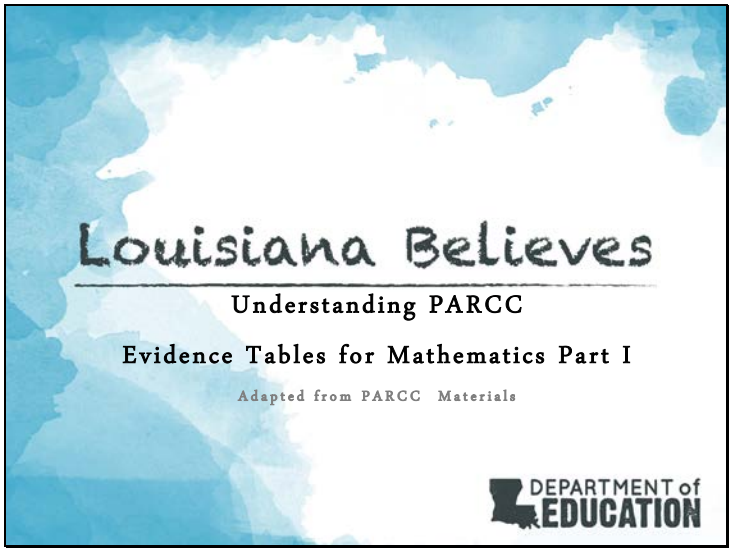
Slide 1



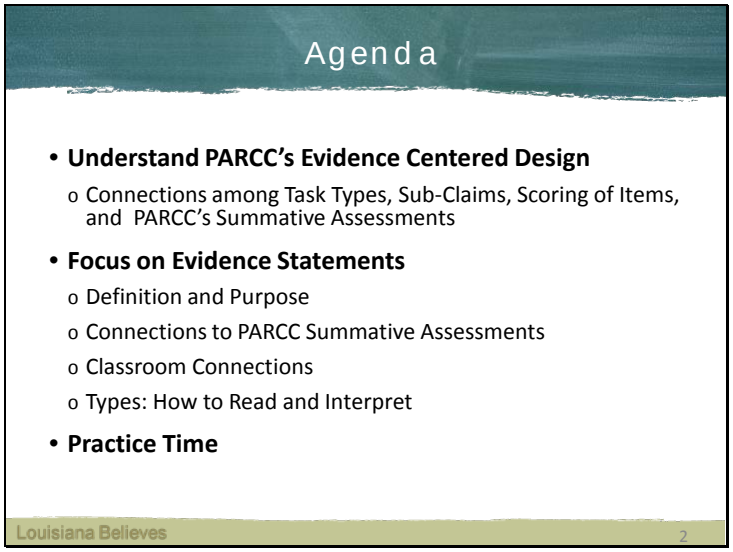
This presentation is the first of two designed to be used as a Training Module on PARCC's Evidence Tables. This presentation provides the basics in helping teachers to interpret the Evidence Statements. The second presentation, *PARCC Evidence Statements for Mathematics Part II: Evaluating Tasks*, is posted in the Teacher Leader Library http://www.louisianabelieves.com/resources/library/louisiana-teacher-leaders

These notes are designed to be used as a facilitator guide.

This presentation was created with the intent of using digital materials; therefore, information has been copied from Evidence Statements and provided in the slides. It may be beneficial for participants to have printed copies of the Common Core State Standards for Mathematics and the Evidence Tables for the targeted audience.

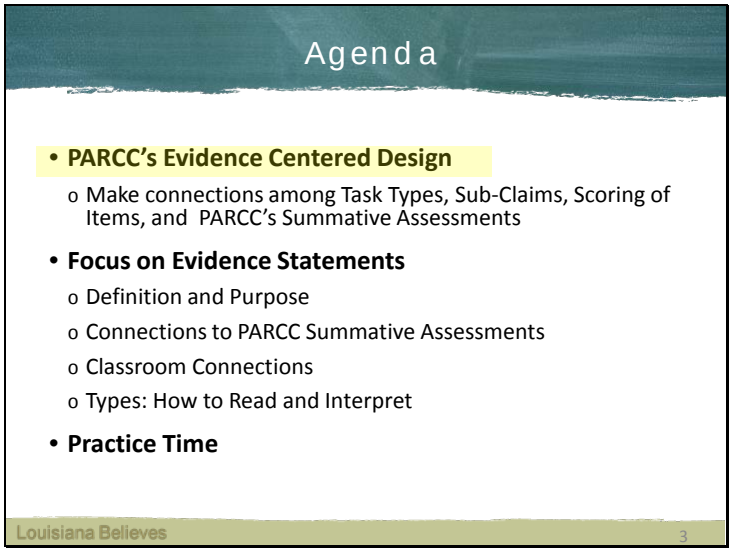
The documents to be used by participants when completing activities in this presentation include:
Grade 3 Math PBA Evidence Table
Grade 8 Math PBA and EOY Evidence Tables
All three documents are posted in the Teacher Leader Library for session FA2.
Evidence Statement Tables for other grades are posted on the PARCC website at http://www.parcconline.org/assessment-blueprints-test-specs.

Slide 2



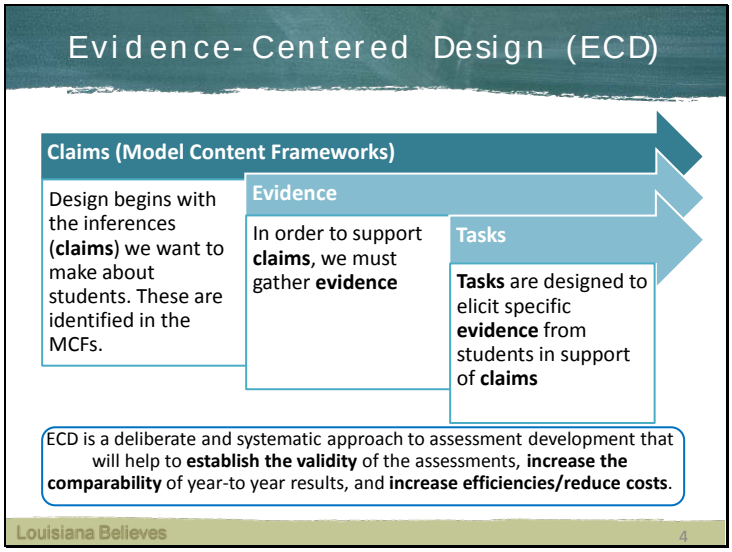
Review slide.

Slide 3



Let's take a look at Evidence Centered Design.

Slide 4



PARCC is using an Evidence-Centered Design to drive the development of its summative assessments.

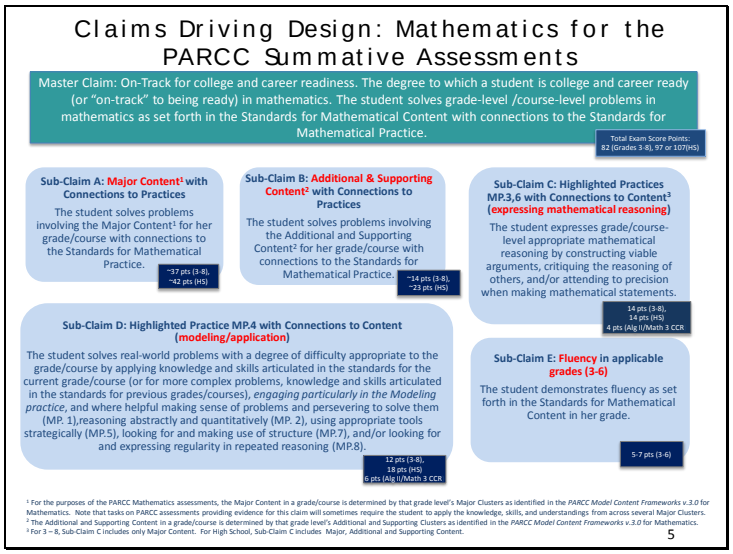
The ECD process includes

- identifying potential claims about what constitutes student proficiency
- identifying evidence (what students might say, do or produce that will constitute evidence for the claims), and
- creating the kinds of situations – the tasks or items -- that give students the optimal opportunity to produce the desired evidence.

As an over-simplified example, let's say that a teacher is going to assess his/her students on a unit involving adding and subtraction of fractions with unlike denominators. The analogous steps might be that the teacher:

- makes a claim about the proficiency expected, such as "each of my students will score 75% or higher on the unit assessment."
- identifies what evidence the student must show, such as
    - rewrites an expression showing sum/difference of unlike denominators as an expression of fractions with like denominators
    - solves problems without context
    - writes and solves an equation to solve two-step applications (real-life word problems)
- creates specific items/tasks that allow students the opportunity to show proficiency for each evidence statement.

Slide 5



PARCC's overriding master claim is directly linked to the primary reason for the development of the CCSS - the need to drive instruction such that all students exit high school as college and career ready. This claim is also the basis for the information provided in PARCC's Model Content Framework.

In mathematics, one sees the claims connected clearly to the instructional shifts of the CCSS as

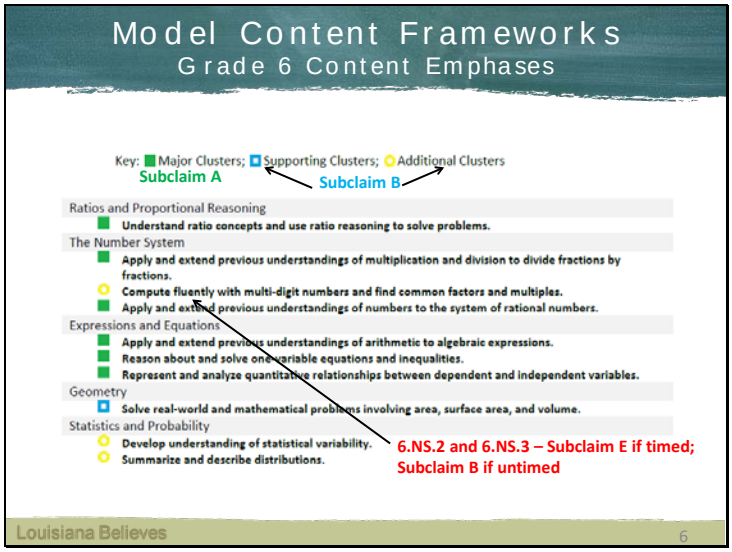
- the assessment will focus where the standards focus
- the assessment will promote coherence across grades and concepts with integrated tasks leveraging major, additional, and supporting content as well as the mathematical practices
- the assessment will promote rigor through mathematical reasoning and modeling with connections to content.

Summarize the slide, noting that there are five sub-claims identified by a letter (A–E) and stating the focus of each sub-claim (as noted in the red text on the slide).

The five sub-claims will be used as reporting categories for the PARCC summative assessments. Remind participants that prior to 2014, the reporting categories for *i*LEAP and LEAP assessments were based on strands found in the state standards (e.g., Number, Geometry). The 2014 reporting categories were based on CCSS grade-level domains (e.g., Numbers and Operations in Base Ten, Numbers and Operations –Fractions).

Note: PARCC will use results from field and diagnostic testing to determine if fluency items will have a timing component. Until that decision has been made, teachers should assume that fluency items will be timed.

Slide 6



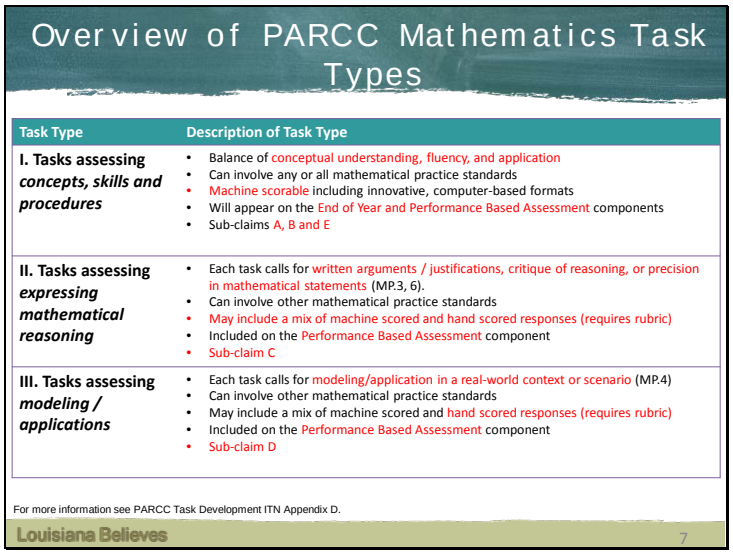
This slide shows the relationship between three of the sub-claims and the Model Content Framework Grade 6 Content Emphases. The content emphases indicate which clusters within a CCSS domain are considered Major, Supporting, or Additional clusters using green, blue, and yellow icons, respectively, to identify those clusters.

Student results from items based on CCSS found in the Major Clusters (green) would be reported in Sub-claim A. Results from items found in Supporting (blue) or Additional (yellow) Clusters would be reported in Sub-claim B.

6.NS.2 and 6.NS.3 are fluency standards. Because they are in a cluster marked as Additional, results from those items would be reported either in Sub-claim B or Sub-claim E, depending on whether the item is timed or not. There are instances in which a fluency item would definitely **not** be timed. For example, if division of a multi-digit whole number is required in a word problem, the item would not be timed as reading would affect the time needed to complete the item. If the item is purely mathematical in nature, such as 2832 ÷12, then the item could be timed.

What is not evident from the Model Content Framework Content Emphases is which standards will be addressed under Sub[claim C (Reasoning) and Sub-claim D (Modeling). More on that to come.

Slide 7



PARCC has identified three item/task types that will be used to allow students the opportunity to show proficiency. This slide shows the relationship of each task type to the sub-claims and the two PARCC summative assessments (PBA and EOY) as well as the focus of each task type. Notice that tasks written to standards found in

- Sub-Claims A, B, and E are Type I tasks (machine scorable) only
- Sub-Claim C task are Type II tasks
- Sub-Claim D tasks are Type III tasks

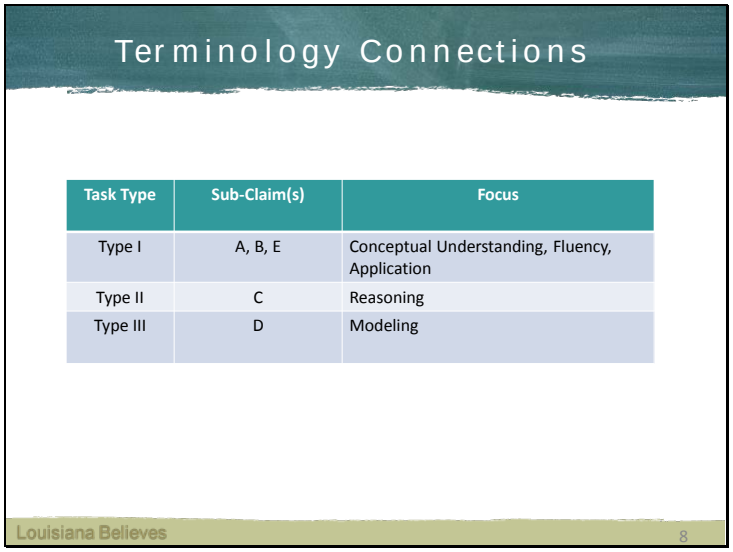
Get a show of hands to determine the participants' awareness of these task types and where examples of the tasks can be found. They are:

- LDOE 2014-15 PARCC Assessment Guides for Mathematics.
  (Teacher Toolbox, End-of Year Assessment at http://www.louisianabelieves.com/resources/classroom-support-toolbox/teacher-support-toolbox/end-of-year-assessments)
- Sample Mathematics Items (pdf format) at http://www.parcconline.org/samples/math
- Sample Math Items (digital format) at http://practice.parcc.testnav.com/#
- EOY Practice Tests (digital format) – Type I tasks only – at http://practice.parcc.testnav.com/#

Ask participants why it is necessary to machine score Type I items/tasks. (More cost efficient and faster. Turn around time on EOY assessments must be quick.)

Ask participants to form small groups to think about word associations that will help them to remember how task types relate to sub-claims and the focus for each task type. Allow 2 minutes for this discussion. One possible listing of associations is provided on the next slide for use as needed after the discussion period ends.

Slide 8



The connection among Task Type (I, II, or III), Sub-claim(s), and focus of each will be an important one in understanding Evidence Statements and their connection to classroom instruction.

Some educators may also want to make the connection that Type I means machine-scored and that the nature of Type II and Type III tasks will require students to write explanations, show their work, etc., although some parts of these tasks may be machined-scored.

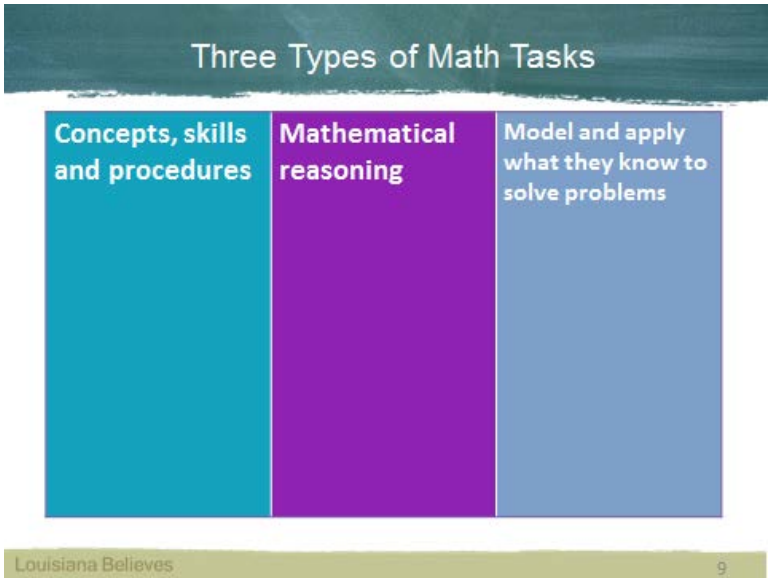
In the next, slide participants will have the opportunity to think about how to create one of each task type by focusing on the Pythagorean Theorem.

BEFORE ADVANCING THE SLIDE,
have participants form small groups and to spend 1 minute making sure that each participant

- remembers the wording of the Pythagorean Theorem.
- knows the circumstances under which the theorem can be applied.

Show the next slide.

Slide 9

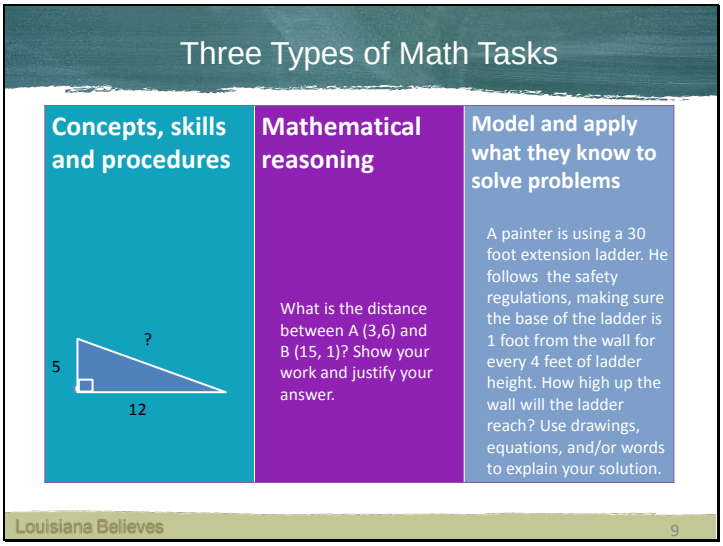


1) Ask participants to write one task for each of the three task types in which the Pythagorean Theorem would be the content focus. Allow 5 – 6 minutes for this.

2) Have three different groups share what they wrote and have them explain why they think the task they wrote matches the task type. Tasks written should not be evaluated. The point of this activity is to have participants think about creating different task/item types using a single topic.

When this discussion is completed click to start slide 10. Because the slide is a duplicate of slide 9 with more information, it may appear that the slide does not change, but it will.

Slide 10

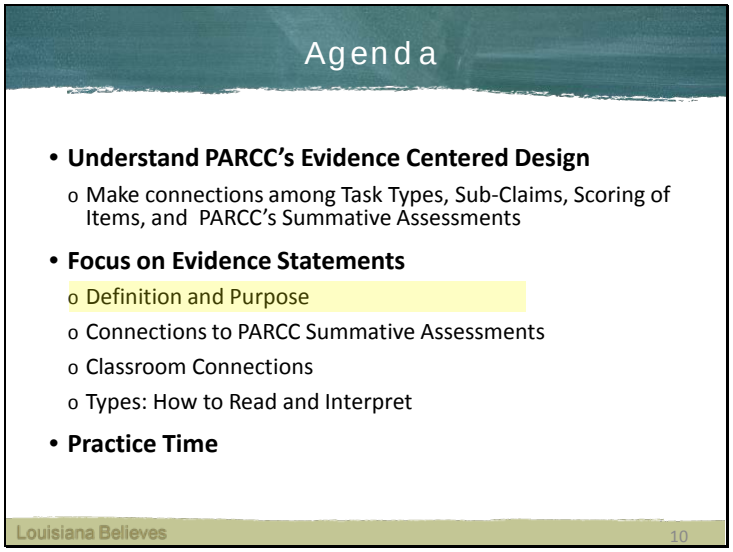


Now, share the three tasks that are provided as examples by clicking once, pausing to allow time for the task to be read, and then repeating the process until all examples are shared.

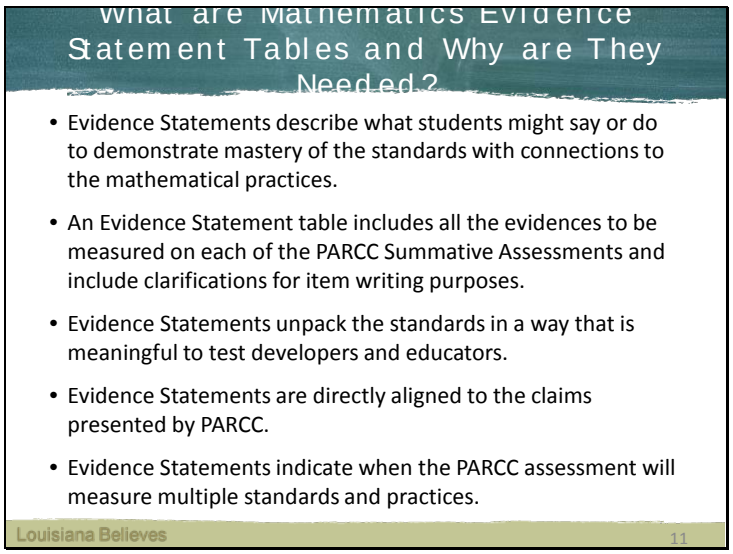
Please make sure that participants understand that these are NOT PARCC items, but are taken from various sources.

Note: Because slide 9 was created after the TL Summit and inserted in this guide, the page numbers on the images of the slides in this document only will be off from each point on. The slide number printed above each slide IS correct.

Slide 11


Agenda
• Understand PARCC's Evidence Centered Design
o Make connections among Task Types, Sub-Claims, Scoring of Items, and PARCC's Summative Assessments
• Focus on Evidence Statements
o Definition and Purpose
o Connections to PARCC Summative Assessments
o Classroom Connections
o Types: How to Read and Interpret
• Practice Time
Louisiana Believes
10

Slide 12



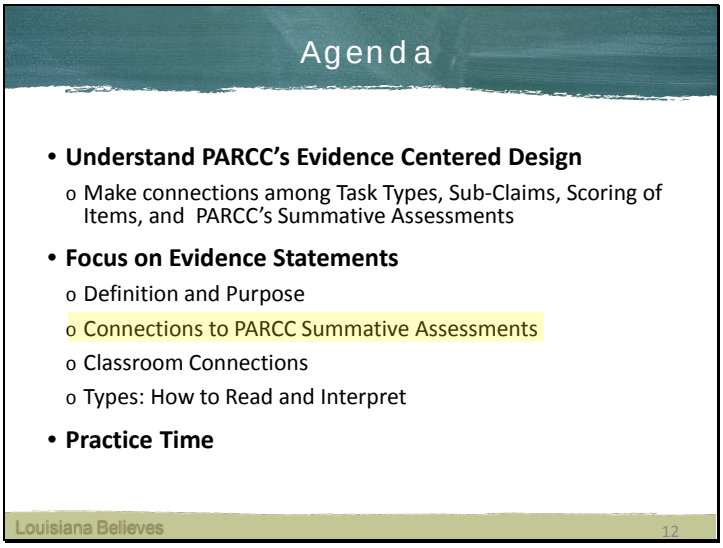
Indicate to participants that they will be examining Evidence Statements. The first step is to know what Evidence Statements are and what purpose they serve.

Review the information on the slide or have the participants read the slide on their own.

The unpacking of the standards was done very carefully to ensure that the coherence, rigor, and intent of the standards were not compromised.

Indicate that for each grade, Evidence Statements are organized into two tables – one for the Performance-based Assessment and the second for the End-of-Year Assessment.

Slide 13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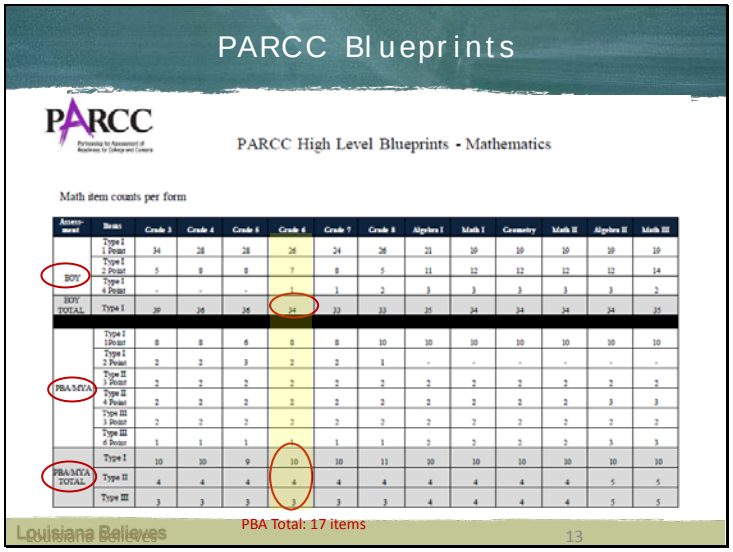
12

Slide 14



Shown on this slide is a copy of PARCC's blueprint for mathematics summative assessments. The blueprint shows how many of each task type (I, II, III) will be on the Performance-based and End-of-Year summative assessments. The information for Grade 6 has been highlighted in yellow.

In addition to the number of task types, there is information about the point values for each task type.

For Grade 6 mathematics:

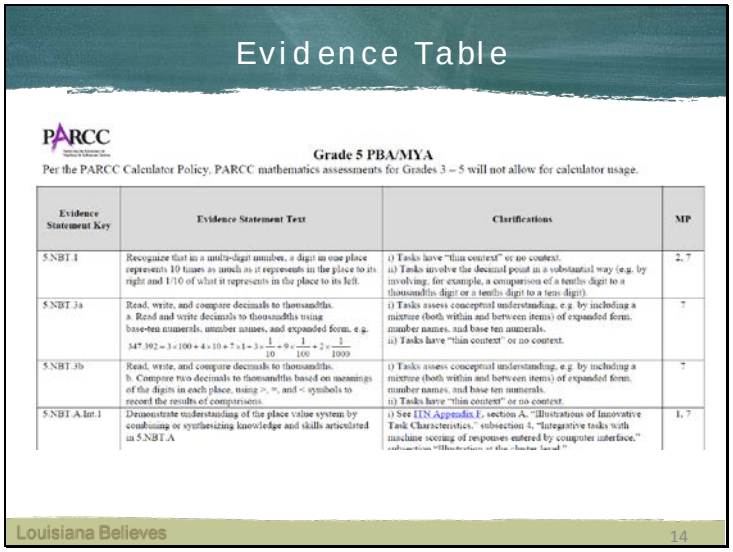
- There are 34 Type I tasks on the EOY. Of those, 26 tasks will be worth 1 point, 7 tasks will be worth 2 points, and 1 task will be worth 4 points.

- There are 17 items on the PBA, 10 tasks are Type I, 4 tasks are Type II, 3 tasks are Type III. Type I tasks will be worth 1 or 2 points; Type II tasks will be worth 3 or 4 points, and Type III tasks will be worth 3 o

Participants should see the LDOE PARCC Assessment Guides posted on the LDOE website for additional information.

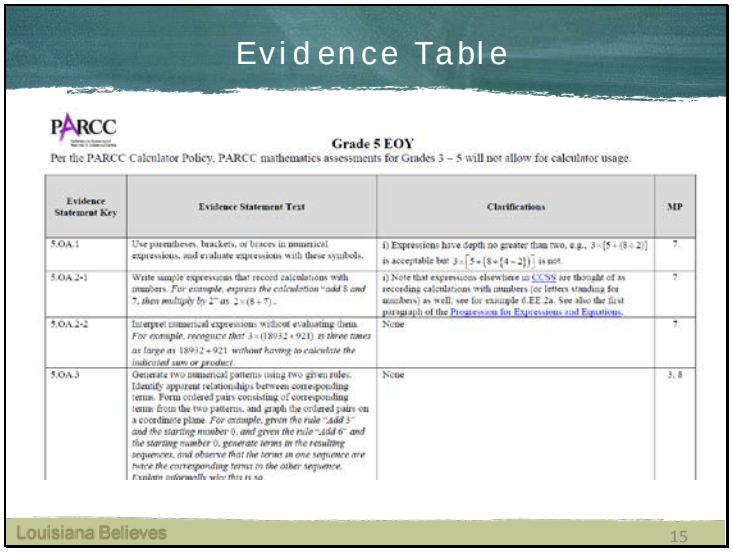
Should there be questions about the Mid-Year Assessment (MYA), this is an optional PARCC assessment that will have the same format as the PBA. Mid-Year Assessments will be developed during the coming school year.

Slide 15



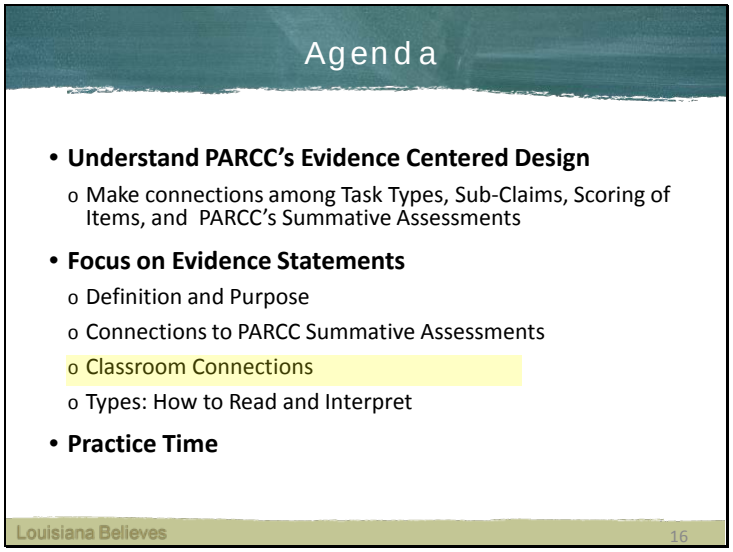
Evidence Statements are grouped and placed into Evidence Tables based on the summative assessment to which they apply. Above is an excerpt from the Grade 5 Evidence Table for the Mathematics **Performance-based Assessment**.

Slide 16



This is an excerpt from the first page of the Grade 5 Math Evidence Table for the **End-of-Year** summative assessment. There is some overlap of Evidence Statements between the PBA and the EOY assessments, but the Evidence Tables for the PBA and the EOY for a grade are not identical.

Slide 17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o Classroom Connections
o Types: How to Read and Interpret
• Practice Time
Louisiana Believes
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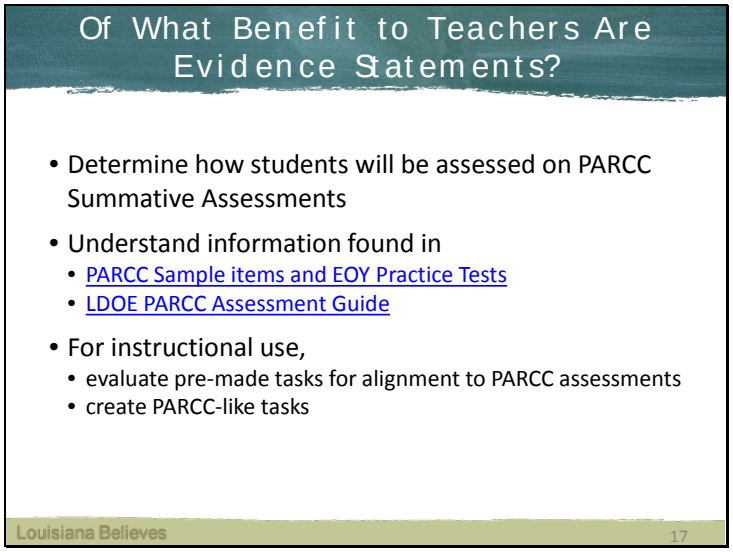
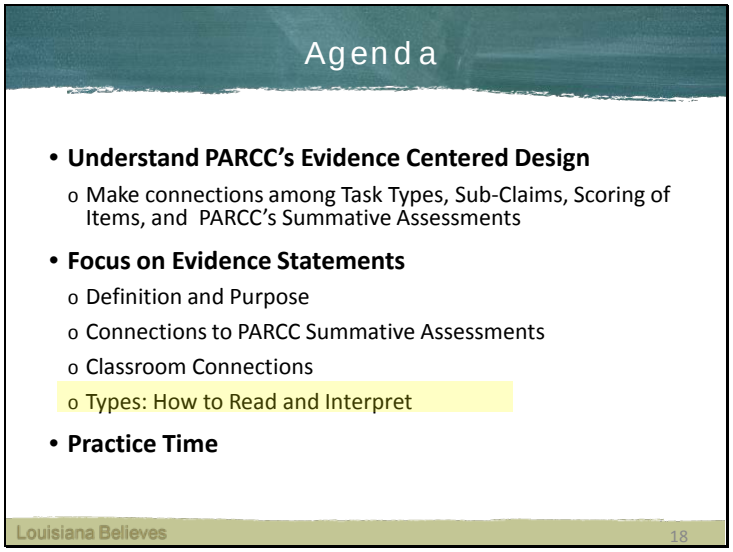
Slide 18



Before clicking to show the text in the body of the slide, ask participants to consider the question now that they have the definition of Evidence Statements. Generate some responses from the audience without revealing the remainder of the slide's text.

Click to show the text in the body of the slide and compare to what the participants stated. The responses on the slide are some of the expected responses, but others may also be valid.

Slide 19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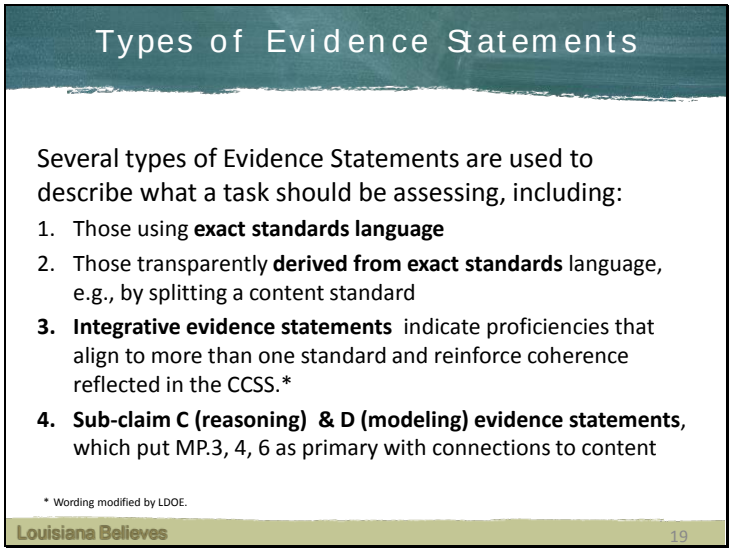
• Practice Time
Louisiana Believes
18

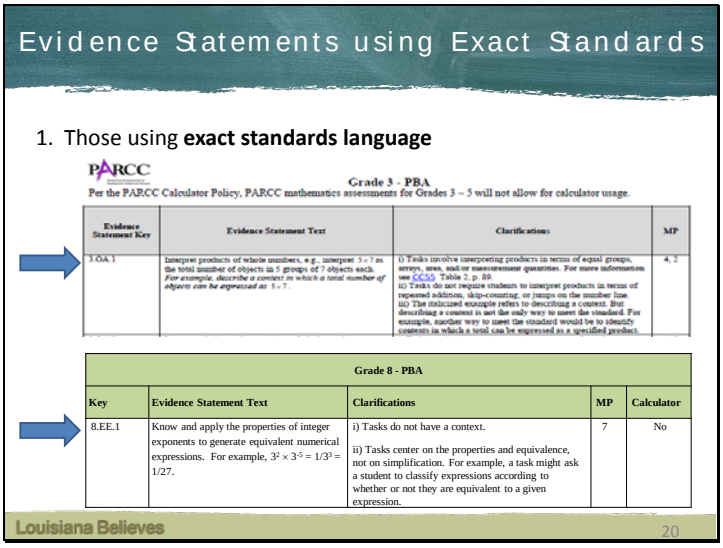
Slide 20



Review the slide.

Indicate to participants that they will look at examples of each of these.

Slide 21

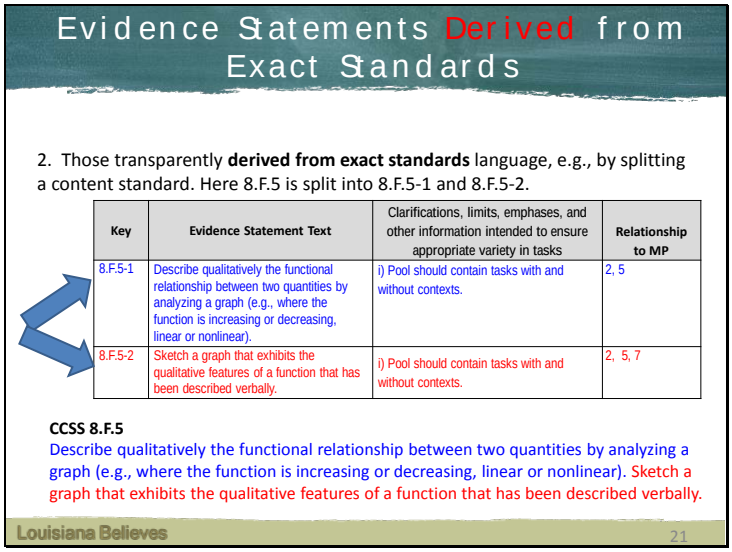


Evidence statements are identified by an Evidence Statement Key. The format of the Evidence Statement Key indicates the type of Evidence Statement. **When the Evidence Statement Key is the same as the code for the CCSS**, then the Evidence Statement text and the CCSS will have the same wording. An example of two **exact language** Evidence Statements are 3.OA.1 and 8.EE.1.

Other information included in the Evidence Statement tables include:

- Clarifications about the Evidence Statement.
- Alignment of the Evidence Statement to one or more Math Practices. Note: In some cases, there may be no alignment to a Math Practice.
- For grades 6 and above, an indication as to whether students would be able to use a calculator on an item written to the Evidence Statement. For grades 3-5, only students with a documented calculator accommodation may use calculators on the PARCC assessment so this column is not needed.

Slide 22

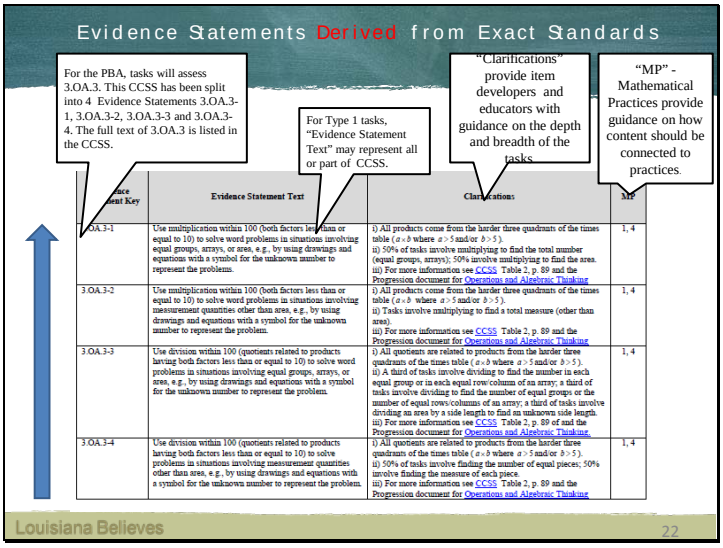


Note that in the above Evidence Statements, **the Evidence Key starts with the CCSS code but adds a hyphen and a number to indicate that the standard has been split.** This always happens when the text for an Evidence Statement was created by splitting a standard .

For reference:
The exact wording of CCSS 8.F.5 is provided for reference. The colors used in the Evidence Statement table match the colors in the text of the CCSS to show which part of the CCSS was used to create the Evidence Statement 8.F.5-1 and which part was used to create Evidence Statement 8.F.5-2.

Ask participants to discuss with a partner what “tasks with and without context” means. (A context gives a problem meaning, generally in the form of a word problem. A problem without context is sometimes called a “naked math problem.”)

Slide 23



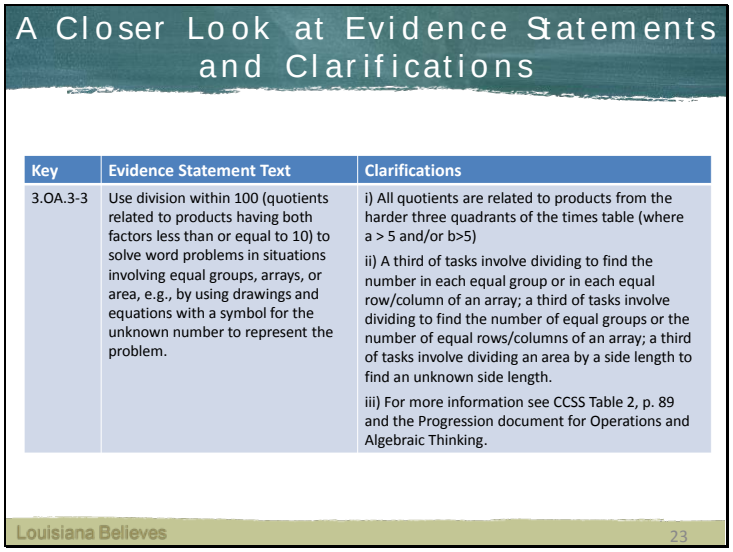
Reveal the bubbles on this slide after asking the following questions:

- From what Evidence Table are these Evidence Statements taken? (Grade 3 – PBA)
- What CCSS is the foundation for these Evidence Statements? How can you tell and what does the numbering indicate? (Click once to reveal first bubble)
- Click to reveal the second bubble as it contains general information that Type I Tasks written to an Evidence Statement are not required to address all parts of the Evidence Statement. For example, for 3.OA.3-1, the word problem would not be expected to include equal groups, arrays and area. Item developers would choose one of them when writing a task.

Mathematical Practices.

Sometimes you will see more than one or no Mathematical Practices listed for an Evidence Statement. Most Mathematical Practices listed have a natural connection to the content and are a direct consequence of the evidence statement. Writers are asked to find ways in which to incorporate the Math Practice in the items that are written to align with the Evidence Statement.

Slide 24



Ask participants to read the **Evidence Statement Text** with the idea of analyzing all the content required. Give them about 2 minutes to do this. Things that should be noted are:

- Multiplication facts from 1 x 1 through 10 x 10. (Even though the product of 8 x 12 is within 100, the factor requirements indicate that such content will not be covered on the EOY.)
- Solving word problems of three types: equal groups, arrays and areas
- e.g. means “for example;” therefore, the use of drawings and equations are not required.

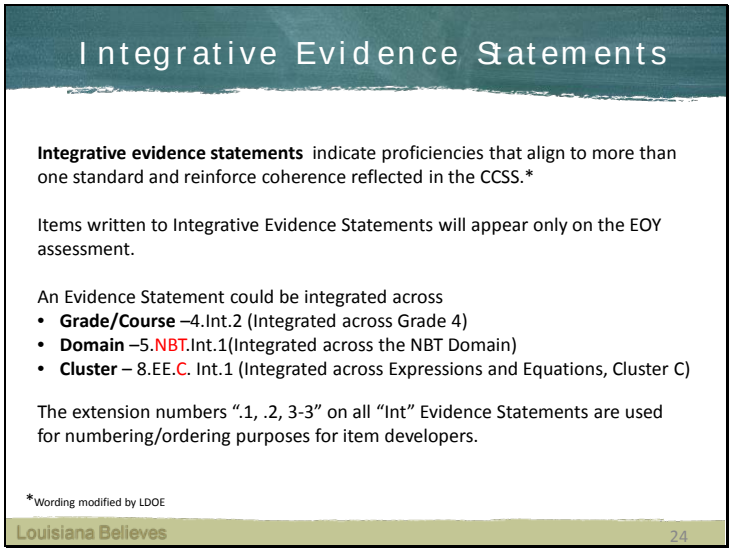
Then, ask participants to do a similar analysis of the **Clarifications** within 2 minutes. They are:

- At least one of the factors used must be greater than 5
- The three different types of word problems will be equal in distribution. No one is more important than the others.
- Page 89 of the CCSS and the Math Progression document for the Operations and Algebraic Thinking Domain should be used to determine the kinds of problems that students should be able to do.

Return to the previous slide.
Have participants examine all four Evidence Statements formed by splitting 3.OA.3.

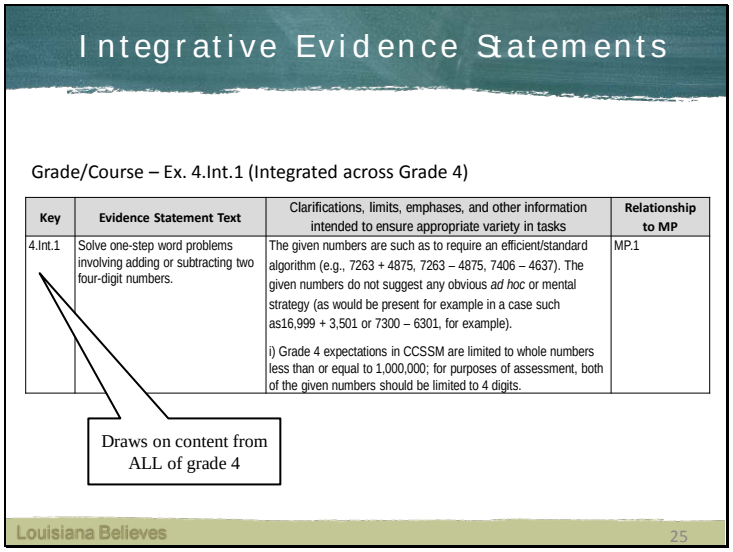
- Asks participants to identify how the factors for 3.OA.1 and 3.OA.2 differ from 3.OA.3 and 3.OA.4 (multiplication would also include factors of 0).
- Ask participants how 3.OA.2 and 3.OA.4 differ from 3.OA.1 and 3.OA.3. (Word problems are on measurement, but may not include area.)

Slide 25

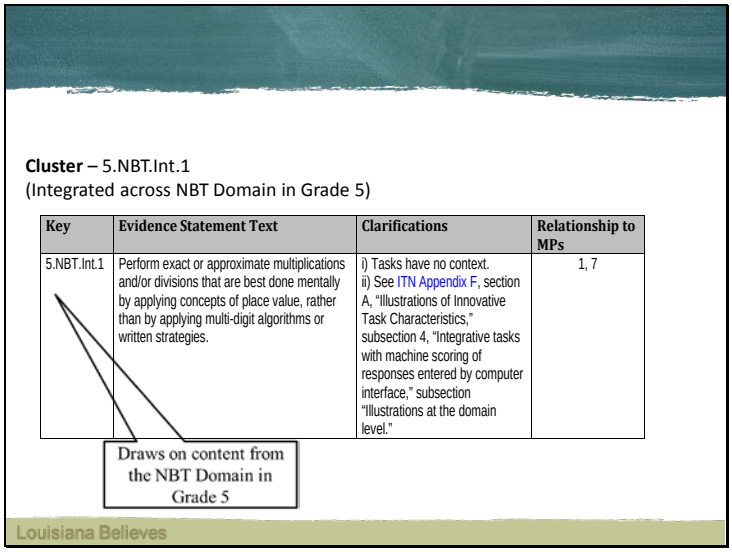


Review the slide. The next three slides show these Evidence Statements.

Slide 26

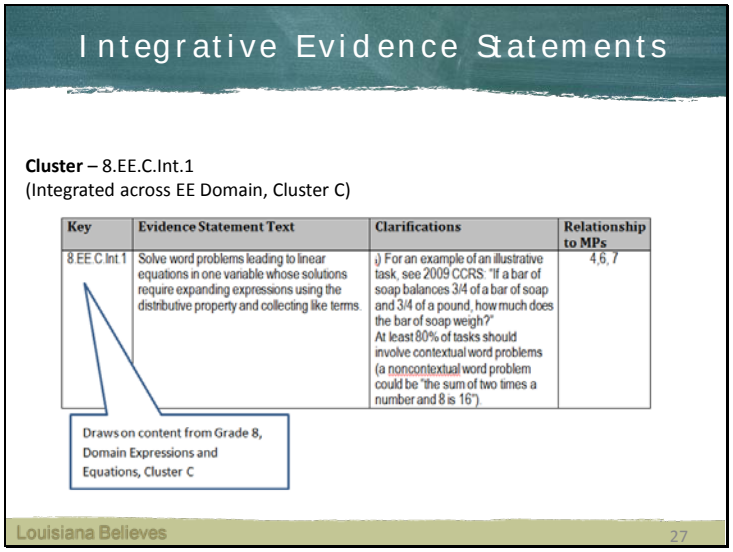

Integrative Evidence Statements
Grade/Course – Ex. 4.Int.1 (Integrated across Grade 4)
Key
Evidence Statement Text
Clarifications, limits, emphases, and other information intended to ensure appropriate variety in tasks
Relationship to MP
4.Int.1
Solve one-step word problems involving adding or subtracting two four-digit numbers.
The given numbers are such as to require an efficient/standard algorithm (e.g., 7263 + 4875, 7263 – 4875, 7406 – 4637). The given numbers do not suggest any obvious ad hoc or mental strategy (as would be present for example in a case such as16,999 + 3,501 or 7300 – 6301, for example).
i) Grade 4 expectations in CCSSM are limited to whole numbers less than or equal to 1,000,000; for purposes of assessment, both of the given numbers should be limited to 4 digits.
MP.1
Draws on content from ALL of grade 4
Louisiana Believes
25

Slide 27



Writers can choose any standard or combination of standards that are found **within the NBT domain** in Grade 5 as the basis for an item.

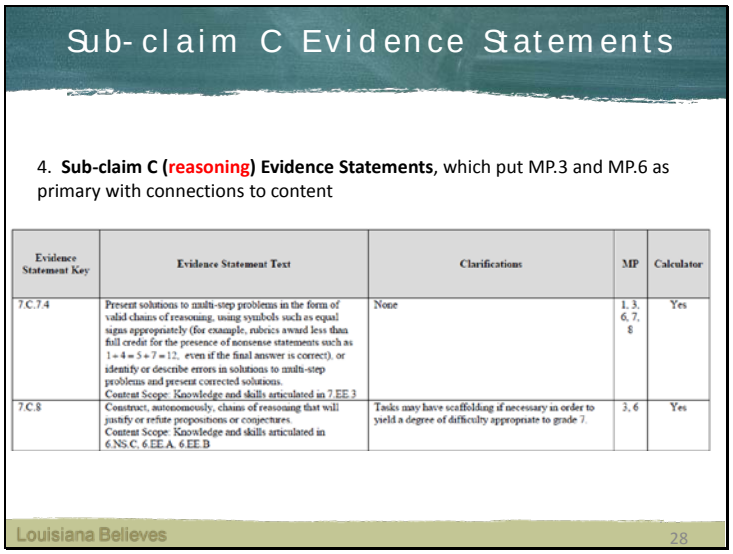
Slide 28



Ask participants to indicate how we can determine which standards are connected to this integrative Evidence Statement. (Look in the Grade 8 math CCSS, find the Expressions and Equations domain, find the third cluster.)

There is only one standard in this cluster; however, that standards has two parts. So items written to this Evidence Statement would address both 8.EE.C.7a and 8.EE.C.7b.

Slide 29



The Evidence Statements for Reasoning and Modeling (Sub-claims C and D) have a unique evidence statement key system. The C or D represents the sub-claim; thus, in this case, we see two examples of Evidence Statements for Sub-claim C (Reasoning).

The first part of the Evidence Statement Key (7 in this example) represents the grade level. The 7.4 represents the internal numbering schema for this grade level and sub-claim. It does not represent any numbering from the Common Core State Standard.

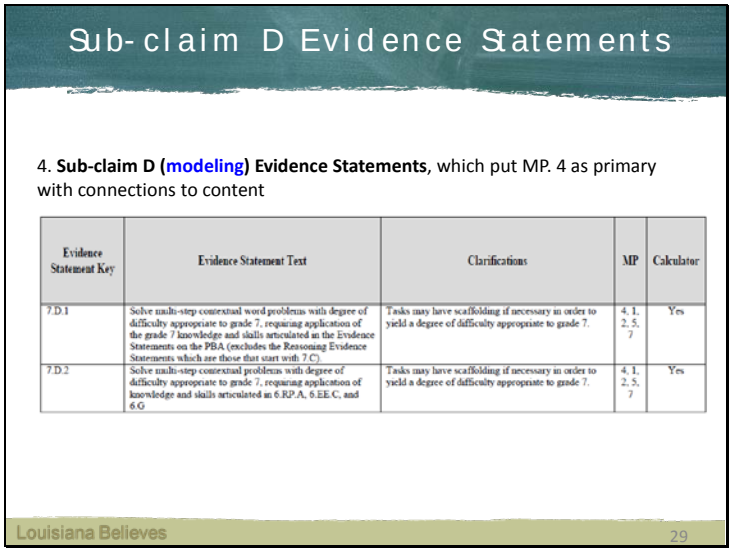
For Sub-claim C (Reasoning), the Evidence Statement Text indicates the CCSS associated with that Evidence Statement. If more than one standard is listed, tasks may target one or more of those standards.

IMPORTANT NOTE: A CCSS listed as part of an Evidence Statement in Sub-claim C **will not** be assessed in a Modeling task. Most Reasoning Tasks and Modeling Tasks will involve some element of reasoning as they require explanations. Making this separation of standards will prevent one CCSS from being evaluated too many times on the PBA.

While Math Practices 3 and 6 are the focus in all Reasoning tasks, other Math Practices may also be included as indicated in 7.C.7.4.

Ask participants to look closely at the CCSS listed for 7.C.8. They are Grade 6 standards, meaning that the item is based on content that should have been mastered or "securely held" from previous grades. Therefore, the grade 6 standards will determine the content limitations for the assessment tasks, but students will still be expected to use reasoning appropriate to grade 7.

Slide 30



The Evidence Statements for Reasoning and Modeling (Sub-claims C and D) have a unique evidence statement key system. The C or D represents the sub-claim; thus, in this case, we see two examples of Evidence Statements for Sub-claim D (Modeling).

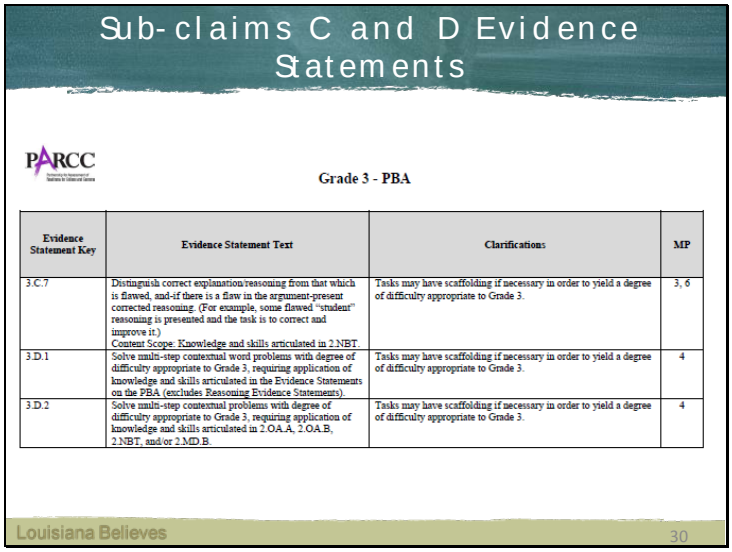
The .1 and .2 represents the internal numbering schema for this grade level and sub-claim. It does not represent any numbering from the Common Core State Standard.

Remember from the previous slide that any standard listed in a Reasoning Evidence Statement will not be used to write items for Modeling. Item developers can develop Modeling Tasks aligned to any other CCSS found in the PBA table. For example standard 7.EE.3 is to be used in Reasoning Tasks developed for 7.C.7.4 (see previous slide); therefore, the CCSS 7.EE.3 cannot be used when creating Modeling Tasks for Evidence Statement 7.D.1.

Note that:

- 7.D.2 is a securely held Modeling Evidence Statement
- 6.EE.C is listed in the text for Evidence Statement 7.D.2. Standards from clusters 6.EE.A and 6.EE.B were part of the Reasoning Evidence Statement on the previous slide, but this is okay since 7.D.2 permits the use of standards from a different cluster, 6.EE.C.
- Math Practice 4 (Modeling) is the focus for all Modeling Evidence Statements, but as indicated in both examples above, other MPs may also be included. This does NOT mean that all four additional MPs listed are a required part of the tasks written to these two Evidence Statements.

Slide 31



Spend a minute or two to ask participants to tell what information they can determine about the three Evidence Statements above.

Grade 3
Performance Based Assessment Evidence Tables

First row: Reasoning - securely held content

Second row: Modeling – on grade level content

Third row: Modeling – securely held content

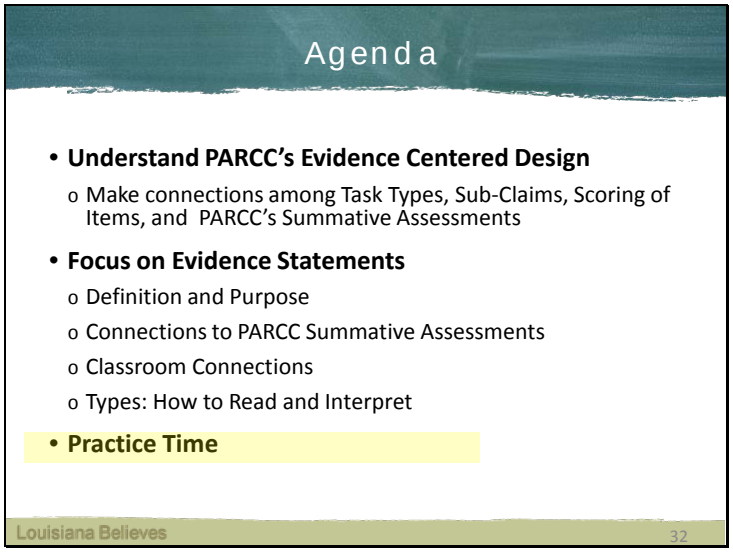
Scaffolding is allowed (breaking into increments to assist students in the process)

Slide 32

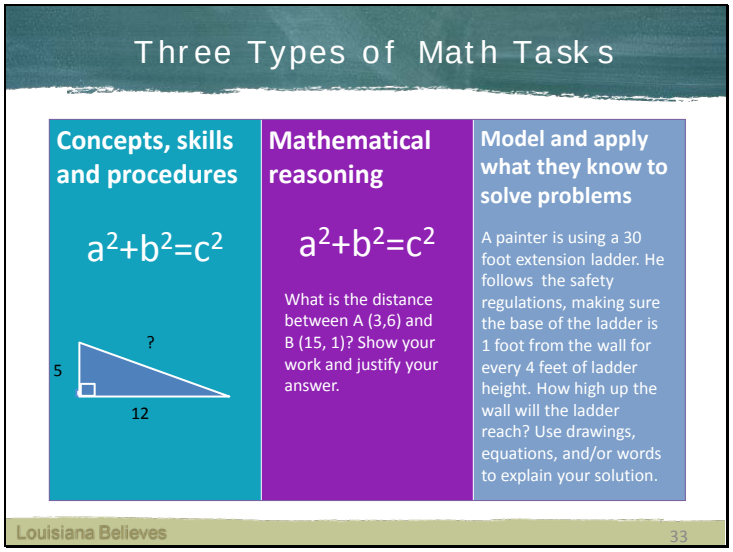
Task Type	Description	Reporting Categories	Scoring Method	Mathematical Practice(s)	Summative Assessment
Type I	Conceptual understanding, fluency, and application	**Sub-claim A:** Solve problems involving the major content for the grade level **Sub-claim B:** Solve problems involving the additional and supporting content for the grade level **Sub-claim E:** Demonstrate fluency as indicated in the CCSS for grades 3-6	Computer-scored only	Can involve any or all mathematical practice standards	EOY and PBA
Type II	written arguments/ justifications, critique of reasoning, or precision in mathematical statements	**Sub-claim C:** Express mathematical reasoning by constructing mathematical arguments and critiques	a mix of computer-scored and hand-scored tasks	Primarily MP.3 and MP.6, but may also involve any of the other practices	PBA only
Type III	modeling/application in a real-world context or scenario	**Sub-claim D:** solve real-world problems engaging particularly in the modeling practice	a mix of computer-scored and hand-scored tasks	Primarily MP.4, but may also involve any of the other practices	PBA only

This chart was created by LDOE and is included in the LDOE PARCC Math Assessment Guide. It is designed to serve as a quick reference to show connections among Task Types, Sub-claims, Scoring Methods, Math Practices, as well as the PBA and EOY summative assessments.

Slide 33


Agenda
• Understand PARCC's Evidence Centered Design
o Make connections among Task Types, Sub-Claims, Scoring of Items, and PARCC's Summative Assessments
• Focus on Evidence Statements
o Definition and Purpose
o Connections to PARCC Summative Assessments
o Classroom Connections
o Types: How to Read and Interpret
• Practice Time
Louisiana Believes
32

Slide 34



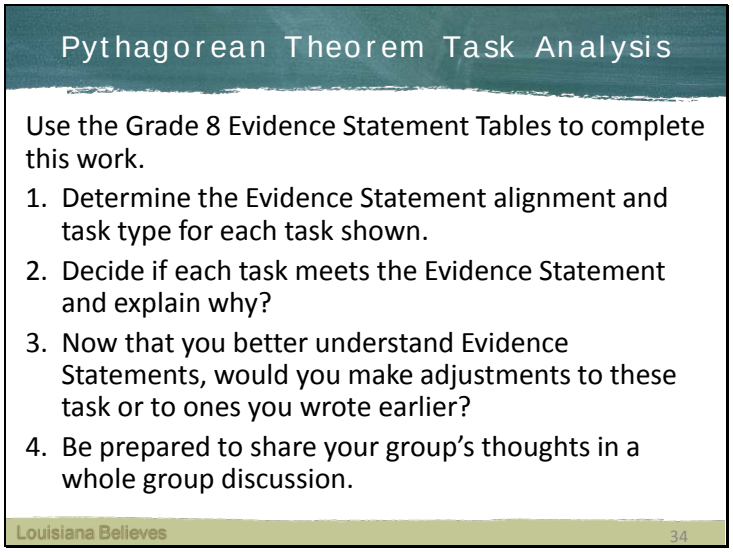
Ask participants if anyone knows the grade level in which the Pythagorean Theorem is part of the Major Content. (Grade 8)

Ask participants to form groups of two or three.

Once this is done, ask them to follow the instructions on the next slide. To assist with the process, the following is recommended:

- One participant in each group should show this slide on his/her computer
- Others in the group should open the PBA or EOY Evidence Tables for Grade 8 math on their computers. If there are 3 members, one member can open the PBA table and another open the EOY table.

Slide 35



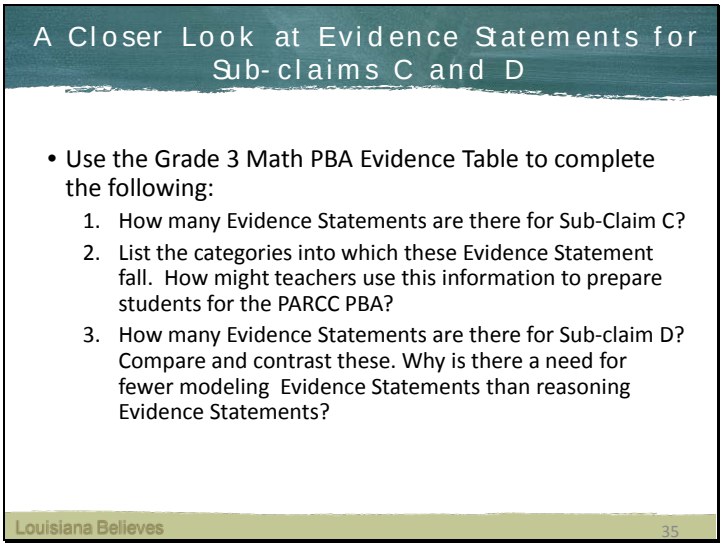
Starting on the left side of the slide:

- 8.G.7-1 – Type I task – Machine Scored
- 8.C.5.3 (aligned to 8.C.8 in cluster 8.G.B) – Type II task – Reasoning – Hand-Scored with rubric
- Because of the limitation that Reasoning and Modeling Evidence Statements cannot address the same standards, there is not a Modeling Evidence Statement in the Grade 8 Tables aligned to the Pythagorean Theorem. However, high school geometry students can be asked to complete such a task using securely-held knowledge using HS.D.1-2. See the Geometry course PBA Evidence Table at http://www.parcconline.org/sites/parcc/files/ESTableGeometryPBA_MYAforPARCC_FinalV2.pdf.

This process allows PARCC to assess coherence across grades.

If time permits, have participants engage in the activity on the next slide.

Slide 36



This activity can be modified to accommodate different grade levels. It can also be adjusted to compare the types of problems that students in different grade levels are asked to complete.

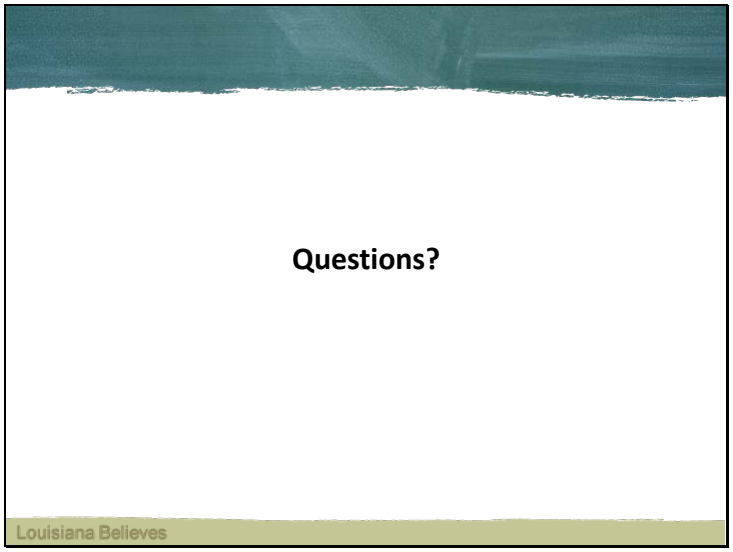
Answers to the above:

- There are 17 Sub-claim C Evidence Statements in Grade 3.
- a) Numbers in parentheses are the number found in each category. Categories require explanations/reasoning based on
    - properties of operations (3)
    - relationship between multiplication and division (1)
    - using concrete referents such as diagrams and connecting diagrams to written (symbolic) method (2)
    - distinguishing correct/flawed reasoning and the ability to present correct reasoning if that provided is flawed (6 on grade level and 1 securely held knowledge)
    - finding solutions to word problems using valid chains of reasoning (2)
    - number line diagrams (2)

b) Teachers need to be sure that students have practice completing each type of problem and using the designated standards.

3) There are only two Sub-claim D evidence statements. One of these Evidence Statements is on-grade level and the other is securely held knowledge. Both of these require solving multi-step word problems. Because Modeling Evidence Statement may use any standard referenced in the PBA, other than those used in Sub-claim C, this focuses the work on word problems, but allows a wide range of content when creating items.

Slide 37



Slide 38