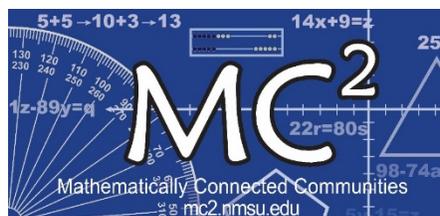


Fall 2016



eNewsletter

Volume 3 Issue 1

The Mathematically Connected Communities (MC²) fall edition is the first of two eNewsletters for the 2016-2017 school year. Please Note: These are interactive newsletters intended to be viewed online in order to be able to access the embedded links to the multiple resources provided. Upcoming editions will be emailed to subscribers. Anyone not currently on our listserv may subscribe by emailing Sheila (sshills@nmsu.edu).

This year's eNewsletters will serve as a follow-up for districts who attended the MC² summer 2016 professional development sessions. Those who did not attend can also benefit from these.

In this issue:

- MC² YouTube Channel Resources
- MC² Publication
- PARCC Update
- Where are they now?

MC² YouTube Channel Resources

Our YouTube Channel is easily accessible by visiting the MC² homepage at mc2.nmsu.edu and clicking on the YouTube icon in the left-hand column. If you have not recently visited this site, we encourage you to check out the following math resources:

- **Webinars:** Don't worry if you missed one of these previously-recorded presentations or just want to view it again. You can now access these directly through the MC² YouTube channel playlist titled [MC² Content Webinars](#). Available topics include:

- Understanding Tens and Ones: A Conceptual Approach to Number and Operations in Base Ten (Grades 1-3)
 - Developing Number Relationships: Pathways to Fluency (Grades K-2)
 - From Counting to Counting On: Fostering the Development of Early Addition and Subtraction (Grades K-3)
 - Addition and Subtraction within 100: Extending Conceptual Place Value (Grades K-3)
 - Exponential Functions (Grades 8-Algebra 1)
- **Algebra 1 MathLab™:** Are you wondering what **MathLab™** is all about? Listen to students who have attended this week-long summer event describe their experiences along with comments by MC² staff and university mathematicians at this [link](#).
 - **Math Strategies:** Individual videos clips and playlists recorded during previously-held **MathLab™** sessions are available on various topics including thinking through problem solving using KFA (Know, Find, Answer), Establishing class/group norms, Math Talk, Number Talk, and Establishing a Standards-Based Learning Environment (SBLE). Additional videos will be added periodically so check back often at this [link](#).
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MC² Publication:

The fifth in a series of published documents titled [Thinking Protocol: Meaningful PARCC Test Prep](#) details the three parts needed to implement this strategy.

- Preparation during Professional Learning Community (PLC)
 - Administration of the task to students
 - Collaborative reflection during PLC
-

PARCC Update:

Are you aware that PARCC released new practice test items in paper-pencil and computer-based format in late September 2016?

- **Grades 3-5:** Four units, calculator not allowed
- **Grades 6, 8:** Three units, calculator allowed only for Units 2 and 3
- **Grades 7, Algebra 1, Geometry, Algebra 2:** Three units
 - Unit 1, Section 1 does not allow calculators.
 - When students finish Section 1, they are not allowed to go back to the non-calculator section of the test as they proceed to Unit 1 Section 2, Unit 2 or Unit 3 which all allow use of a calculator.

MC² has reformatted the practice tests (one item per page) with the CCSS-M standard identified in the header. The process used to create the practice test item documents was as follows:

- Items on the paper/pencil version were reformatted one item per page
- Each item on computer-based version not included in the paper/pencil version is also included

NOTE: For many items, Grade 5 paper/pencil and computer versions were not exactly the same as far as response expectations. Examples of both formats were included in order to show both the paper/pencil and computer-based expectations. The original items are available on the PARCC website at <https://parcc.pearson.com/practice-tests/math/>

It is highly recommended that:

- Teachers allow time during test preparation for students to try out test questions on the technology platform they will use when taking the computer-based PARCC assessments.
- Students should have opportunities to practice different types of items such as drag-and-drop, multiple select, interactive number lines, hot spots, bar, histogram, function graphing, and computer-based tools such as the online calculator.

Tutorials provide students information and practice with the navigation and tools available for the computer-based assessments. The test items appearing in these are samples used to allow students and educators to gain familiarity with the technology platform that will be used for PARCC assessments. An equation editor guide per grade cluster and a tutorial regarding its use is provided as a separate resource at <https://parcc.pearson.com/sample-items/>

Hints:

- It may be helpful if teachers project the online student tutorial for class discussion, then allow students to interact with the assessment platform individually. Grade band or grade specific tutorials may be found at <https://parcc.pearson.com/tutorial>

**A few teachers have expressed,
“Reviewing the tutorials was a good use of time.
I found it very helpful.”**

- PARCC provides a guide, a tutorial and practice items specific to the Equation Editor to help familiarize students with how to use the Equation Editor Tool on the tutorial website, <https://parcc.pearson.com/tutorial>
- Mathematics reference sheets are provided for each grade 5 through 8 and high school in English and Spanish at <https://parcc.pearson.com/practice-tests/math/> in the reference section for each grade. These reference sheets may be provided for students now to familiarize themselves with the content and build confidence in their use. Grades 3 and 4 do not have reference sheets.
- PARCC calculator policy was updated in July 2016. It may be found at <http://isbe.net/assessment/pdfs/parcc/2017/parcc-calculator-policy-17.pdf>

The current practice test items and the prior years' practice test items formatted similarly can be found on the MC² website at <http://mc2.nmsu.edu/PARCC/CountDown.html>

Where are they now?

Each MC² eNewsletter will feature a quick update from a summer 2016 MathLab™ participant. In this issue we are highlighting:

Who: Sheri Stafford

What/Where Teaching: Grade 3, Heights Elementary, Alamogordo Public Schools

What instructional strategy would you like to share with other 3rd grade teachers?

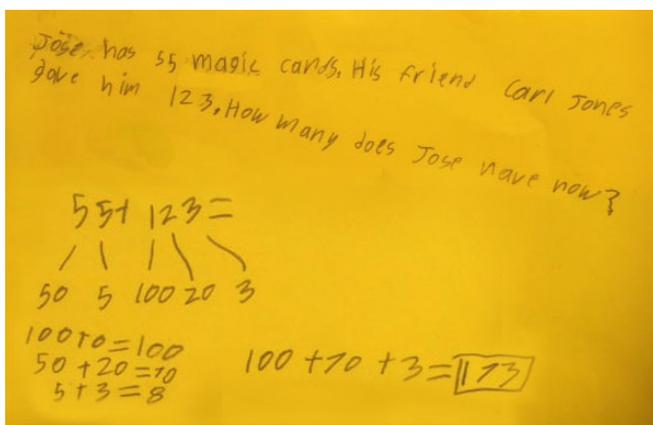
As third graders, this is the first year that my students will be taking the state PARCC assessment. Not only will they need to know the content but also be familiar with the format. For example, they may be given an expression and asked to select statements which are represented by the expression provided.

3rd Grade PARCC Unit 2 Practice Test Item #16 (Non-Calculator): Standard 3.OA.2

16. Which **three** statements can be represented by the expression $24 \div 4$?

- Ⓐ Jake makes 24 muffins. He gives away 4 muffins.
- Ⓑ Collin has 24 toy trucks. He sorts them into groups of 4 trucks each.
- Ⓒ Amira has 24 trading cards. She puts them into piles containing 4 cards each.
- Ⓓ Rosemary puts 24 stickers in each book. She uses enough stickers to fill 4 books.
- Ⓔ Steven fills a new bookshelf with 24 books. He puts the same number of books on each of the 4 shelves.

The Grade 3 Common Core State Standards in Mathematics (CCSS-M) require students to represent and solve problems. CCSS-M Math Practice 1 (Make sense of problems and persevere in solving them) describes mathematically proficient students as those who can explain the relationship between an equation and a verbal description. CCSS-M Math Practice 4 (Model with mathematics) states that students should be able to apply math to solve problems in everyday life and that in the early grades, this might be as simple as writing an addition equation to describe a situation.



I wasn't sure how to teach this concept in a way that addresses both the PARCC assessment and the CCSS-M so I came up with having my class write problems of their own addition, subtraction, multiplication, and/or division on colored half-sheets of paper with the word problem on one side and their solution strategy/answer on the back. **Note:** In Figures 1 and 2, both the problem and the solution strategies are shown on the viewing.

Figure 1: Sample Student-Created Word Problem & Solution Strategy

Then during a following lesson, my students exchange papers and solve each other's problems on a separate sheet of paper using two or more strategies, not including the algorithm. They then compare their solution strategies to the original student's work. A variation of this would be to have students look at another student's solution strategy first and create a word problem which represents it.

Our student-generated class norms also reflect this instructional practice. For example: use strategies to solve problems, learn from each other, and solve it in more than one way. In addition, using formative assessment throughout the lesson is very important in order to better support students' needs.

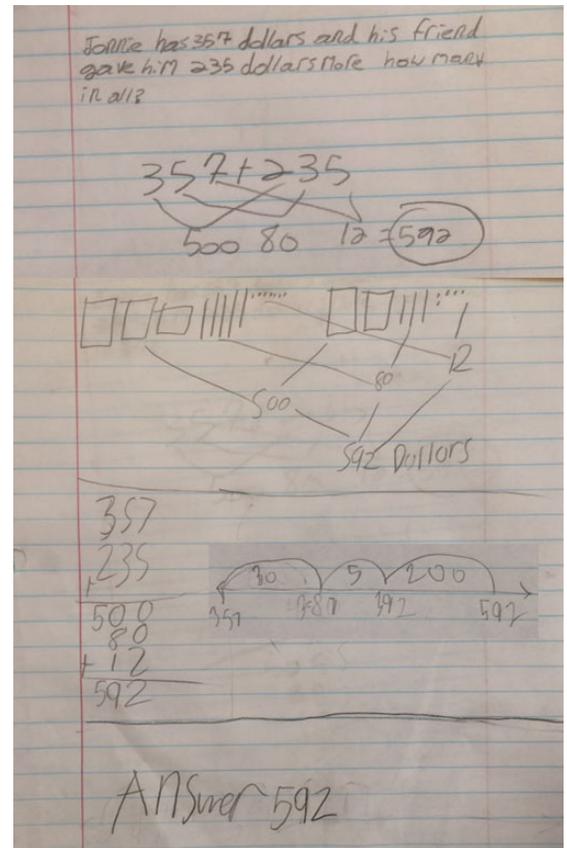


Figure 2: Sample Solution Strategies to Other Student's Word Problem

For questions contact a [MC² Math Education Specialist](#) or
 Email [Sheila](#) or [Terri](#)
[MC² Home Page](#)

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