

Module 1
Participant Guide

Focus on Practice Standards

Section 3

Connecticut Core Standards for
Mathematics



Grades K–5

Systems of Professional Learning

Connecticut Core Standards Systems of Professional Learning

The material in this guide was developed by Public Consulting Group in collaboration with staff from the Connecticut State Department of Education and the RESC Alliance. The development team would like to specifically thank Ellen Cohn, Charlene Tate Nichols, and Jennifer Webb from the Connecticut State Department of Education; Leslie Abbatiello from ACES; and Robb Geier, Elizabeth O'Toole, and Cheryl Liebling from Public Consulting Group.

The Systems of Professional Learning project includes a series of professional learning experiences for Connecticut Core Standards District Coaches in English Language Arts, Mathematics, Humanities, Science, Technology, Engineering, Mathematics (STEM), and Student/Educator Support Staff (SESS).

Participants will have continued support for the implementation of the new standards through virtual networking opportunities and online resources to support the training of educators throughout the state of Connecticut.

Instrumental in the design and development of the Systems of Professional Learning materials from PCG were: Sharon DeCarlo, Debra Berlin, Jennifer McGregor, Michelle Wade, Nora Kelley, Diane Stump, and Melissa Pierce.

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Section 3

Section 3: Understanding the Standards for Mathematical Practice— Developing Mathematical Expertise

Problem Set

Solve each of the following eight problems and think about your process for solving each as your process will be discussed as we look at each of the eight Standards for Mathematical Practice.

<p>Problem 1. Arrange the fractions $\frac{4}{9}$, $\frac{5}{8}$, and $\frac{7}{12}$ in order from least to greatest without making common denominators or using decimals.</p>	<p>Problem 2: Andrea has 280 pieces of candy and wants to create treat bags with 8 pieces of candy in each bag. How many bags will Andrea be able to make?</p>
<p>Problem 3. What makes a square a square? What makes a rectangle a rectangle? Is a rectangle a square? Is a square a rectangle?</p>	<p>Problem 4. Fourth graders are going on a field trip. There are 167 students going. How many buses are needed for the trip if each bus can hold 48 students?</p>

<p>Problem 5. Solve the following division problems. Use a remainder in your answer.</p> <p>$12 \div 8 = \underline{\quad}$ $36 \div 8 = \underline{\quad}$ $804 \div 8 = \underline{\quad}$</p> <p>What observations can you make about the problems and your answers?</p> <p>What generalizations can you make from your observations?</p>	<p>Problem 6. Jack collected hats. He collected both baseball team and football team hats and he wanted to hang his hat collection on his wall. He started with 16 baseball team hats and some football team hats. In the morning, he hung 22 hats. If you knew how many football team hats he started with, how could you figure out how many hats he needed to hang in the afternoon?</p>
<p>Problem 7. Using pennies, dimes, and quarters how many different ways can you make \$0.58? How do you know that there are no other ways?</p>	<p>Problem 8. Determine how many students there are in your school. You do not have to tell me the exact number but you should be close. How did you get your answer?</p>

Understanding the Mathematical Practices

As each of the eight Standards for Mathematical Practices are discussed, use the following charts to record your notes on each.

SMP1:	
Instructional Supports:	Example Problem:
Additional Notes:	

SMP2:

Instructional Supports:

Example Problem:

Additional Notes:

SMP3:	
Instructional Supports:	Example Problem:
Additional Notes:	

SMP4:	
Instructional Supports:	Example Problem:
Additional Notes:	

SMP5:	
Instructional Supports:	Example Problem:
Additional Notes:	

SMP6:	
Instructional Supports:	Example Problem:
Additional Notes:	

SMP7:	
Instructional Supports:	Example Problem:
Additional Notes:	

SMP8:	
Instructional Supports:	Example Problem:
Additional Notes:	