Math Practices in Action
For Pre-K through 2nd Grade

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Presentation Outline

- **Opening Statements:**
  - Introductions
  - Review handout
  - Presentation notes (will be distributed to all *emails on the sign-in sheet*)

- **Overview:** Common Core Standards for Mathematical Practice
  - What are they? Why are they important?
  - Comprehensive descriptions of the Eight Standards for Mathematical Practice

- **Model Problem:** Supporting a variety of problem solving strategies
  - Problem derived from *Illustrative Mathematics*

- **Deeper Exploration I** of math practices: Problem #1 "How Many?"
  - What approaches might students use?
  - What mathematical practices could this problem elicit?

- **Deeper Exploration II** of math practices: Problem #2 "Searching for Patterns" (Van de Walle, p15)
  - What approaches might students use?
  - What mathematical practices could this problem elicit?

- **Questions and Answers**

- **Complete the Survey:** www.nctm.org/confapp

References

Barbieri, B. (2010). *Teddy bear counting*. MA: Charlesbridge.

McCallum, B. (2011). *Illustrative mathematics.* Retrieved from http://illustrativemathematics.org

NGA Center and CCSSO. (2012). *Standards for mathematical practice.* Retrieved from
http://www.corestandards.org/math/practice

Van de Walle J.; Karp, S.; Bay-Williams, J. (2013). *Elementary and middle school mathematics: Teaching developmentally.* (8th ed.). NJ: Pearson.

Standards for Mathematical Practice

1) Make sense of problems and persevere in solving them.

2) Reason abstractly and quantitatively.

 - *Decontextualize*:

 - *Contextualize*

3) Construct viable arguments and critique the reasoning of others.

4) Model with mathematics.

5) Use appropriate tools strategically.

6) Attend to precision.

7) Look for and make use of structure.

8) Look for and express regularity in repeated reasoning.