

Big Math for Small Learners through Problem Solving

From counting to problem solving

**Welcome! While you are waiting, please get some things to
count, at least 12 or more.
E.g., buttons, crackers, crayons, coins, etc.**

Introduce Yourself in Chat

Please include your role/grade, district, and a memorable math moment with children.



Collaborative
Manipulatives - Bears

About Us



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Teaching Resources



Monthly eBlast

Visit <https://www.cmc-math.org/> to find out more!



Big Math for Small Learners through Problem Solving



PROBLEM SOLVING

Build on children's knowledge of counting to create foundation for problem solving



CHILDREN'S THINKING

Observe children's thinking to provide a window into their mathematical understanding



PLANNING FOR NEXT STEPS

Discuss new learnings with peers about student thinking to use tomorrow and beyond

Zoom Agreements



Have your
microphone on mute
until you are ready to
speak.



Chat responsibly
and
respectfully.



Be curious.

Do Math!

- Organize and count your objects in any way that makes sense to you.
- Be prepared to share your thinking.
- Leave your materials out, so we can ask a few follow-up questions.
- Act out and solve.



Please get some things to count, at least 12 or more. E.g., buttons, crackers, crayons, coins, etc.

Preschool student Jayden counts a collection of 18 colorful bears, then figures out how many more bears he would need to have a collection of 20 bears.



<https://prek-math-te.stanford.edu/operations/additional-operations-videos>

Understanding Children's thinking about Word Problems

- A. Carla has 7 dollars. How many more dollars does she have to earn so that she will have 11 dollars to buy a puppy?
- B. Mr. Gomez had 20 cupcakes. He put the cupcakes into 4 boxes so that there was the same number of cupcakes in each box. How many cupcakes did Mr. Gomez put in each box?
- C. Paco had 13 cookies. He ate 6 of them. How many cookies does Paco have left?
- D. Tad had 15 guppies. He put 3 guppies in each jar. How many jars did Tad put guppies in?
- E. Robin has 3 packages of gum. There are 6 pieces of gum in each package. How many pieces of gum does Robin have altogether?
- F. Hannah has 12 balloons. Jacob has 7 balloons. How many more balloons does Hannah have than Jacob?

Rank these problems from easiest to solve to hardest to solve by letter (i.e. A,C...) and add to the chat.

Maggie solves various word problems.



<http://smarturl.it/CM8.1>

Robin has 3 packages of gum. There are 6 pieces of gum in each package. How many pieces of gum does Robin have altogether?



Plan for Next Steps



Button (Keep) - What's 1 idea that you want to keep top of mind and try in the next few days?



Coin (Change) - What's 1 thing you want to change based on what you learned?



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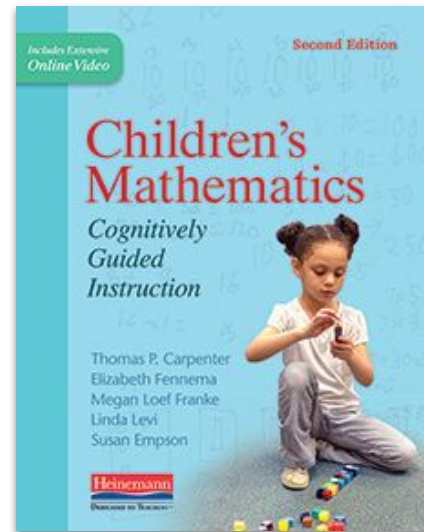


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Resources

- [Development and Research in Early Math Education \(DREME\)](#)
- [Children's Mathematics: Cognitively Guided Instruction](#)
- [Theresa Wills Interactive Slide Templates](#)
- [California Mathematics Council website](#)



Thank you!



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