MC² Thinking Protocol
for Comparing Different Student Strategies

Teacher Preparation for the MC² Thinking Protocol

- **Choose a task** that addresses content studied in the current or previous curriculum units during your math instruction. Make a paper copy of the problem for each student with the questions listed in Step 1 below.
- **Think About:** What is the math content in the problem? What math practices could be highlighted? How does it connect to what students are learning in class?

MC² Thinking Protocol (At least 15-20 minutes)

1. **Students <u>think individually</u> about the task and respond to the three questions below. (3+ minutes)**
   - Think about and write about the problem by yourself
   - Explain why you chose your answer and your strategy.
   - Write in pencil and please don't erase.
   - Work individually for 3-5 minutes.
   - If you're not sure, explain where you're stuck or ask a question.

2. **Students <u>think with a partner</u> about the task and add to their solution in a different color, making sure not to erase any original ideas. (5+ minutes)**
   - Explain your strategies and arguments.
   - Listen to your partner's strategies and arguments.
   - Discuss your ideas.
   - Write any new strategies and ideas you learned from your partner in a different color.

3. **Students <u>think with the class</u> while sharing and comparing strategies for solving the task. (6+ minutes)**
   - What strategies did we use to solve the problem and find the answer?
   - What ideas did we have?
   - What questions did it make us think about?
   - What are the similarities/differences among the strategies?
   - What connections can be made between the strategies?

4. **Students <u>reflect</u> on the task and identify what was easy/hard about the problem. (1+ minutes)**

Teacher Reflection on the MC² Thinking Protocol

In your PLC, discuss what data this process/task provides. Consider what instructional strategies are needed to support students' development of Mathematical Practices and flexibility in problem solving. Reflect about:

- What do students understand? Where is the evidence in the student work?
- What were misconceptions/gaps in the students' knowledge? Where is the evidence in the student work?
- What were the instructional strategies or classroom experiences that can help move the learning forward?
- How can the protocol be used to build math confidence in students?
- How are the Common Core and Math Practice Standards advanced using the MC² Thinking Protocol as classroom warm-up problems?