Thinking Protocol for Student Self-Assessment

Teacher Preparation for the MC² Thinking Protocol

- **Choose a task** that addresses content you are working on in class. 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 of the problem? What math practices could be highlighted? How does it connect to what students are learning in class?

MC² Thinking Protocol Steps (At least 15-20 minutes)

1. **Students <u>think individually</u> about a task and respond to the three questions below. (3+ minutes)**
   - What do I know about the problem?
   - What questions do I have?
   - Explain my reasoning or thinking in solving the problem.

   Students self-assess and write the word "Green", "Yellow" or "Red" (or place a colored dot) on the top of their paper which corresponds with what they feel about their thinking.
   - Green - "*I am confident in my answer and my thinking and need no more time to think alone.*"
   - Yellow -*"I am not sure with my answer or thinking and need a little time to talk with somebody about my ideas."*
   - Red - **"***I am not confident in my answer or reasoning and need to do some more learning about the math."*

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)**
   - Have students discuss their thinking about their responses to the questions with a partner.
   - Make sure both partners have a chance to share.
   - Students may add to their thinking or change their responses in a different color.

3. **Students <u>think with the class</u> while sharing strategies for solving the task. (6+ minutes)**
   - Select 2-3 students or partners to share their ideas with the whole class.
   - The purpose is to add new ideas/strategies to the whole group's thinking.

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?