**Classroom Connection Activities**

Please engage in the following activities and bring resulting responses or materials with you to our next session. Feel free to engage with colleagues in these activities, however it will be helpful for each participant to bring or upload responses and materials for the next session.

1. At the beginning of your participation in this module you collected a few images of your recording in public space in teaching. You have engaged in multiple cycles of learning from and working to improve your use of public recording space in mathematics teaching. Look across the records and reflections you have generated and take stock of your teaching in this area.
2. Use the criteria in the public recording space checklist to select a few areas where you feel your practice has improved and a few areas in which you feel your teaching would most benefit from further improvement.
3. Write a reflection focused on these areas in which you share specific evidence from the records you gathered. For instance, you might show your improvement with respect to “recording important ideas” through several images of your chalkboard where terms, goals, and findings are more evident. Another example is that you might show the need for further improvement through plans that do not yet explicitly connect your goals with how or where your public recording space will show those goals.
4. In session 5, we compared fractions using a number line representation. Now try to narrate the comparison of each of the following pairs of fractions using both an area model and a set model. In our next meeting, you may be asked to narrate the comparison to the group.

 or   or   or 

**Optional**

1. Throughout the module we have been focusing on key ideas about fractions. Try the following problem that draws on some of those ideas.

*Four friends find a box of snack cakes on the counter in the kitchen. Someone had eaten one of the snack cakes so there were seven left. The four friends want to share the seven snack cakes equally. How many snack cakes does each person get?*

Solve this problem in two ways. One way should include a visual representation of the solution that shows each step in the solution. For each step in the visual representation describe what has taken place.

1. Strategic thinking has long been regarded as central to mathematics. It has also been identified as an important component of proficiency in mathematics. Read the short excerpt on strategic competence drawn from National Research Council (2001) report, *Adding It Up: Helping Children Learn Mathematics*, for more elaboration of its characteristics. *The information about this reading can be found in the Professional Readings list, that can be accessed by facilitators in the Session 9 Planner.*
   1. Consider a context that you might use for having students formulate mathematics problems. What features of that context would make it productive for this kind of work?
   2. Generate a problem grounded in the context you named in response to (a). How might students represent the mathematics involved in solving that problem?
   3. Anticipate strategies that students might use to solve the problem. Characterize the differences in the strategies (e.g. Which seems most efficient? Which seems most understandable? Which would be more error prone?)