**Materials:** Teachers should have copies of the SMP available. Enough copies of Handout 1, Student Work, and Handout 2 for each participant.

**Note to facilitator**: When we used this task, it was very difficult for teachers to think about the potential for use of mathematical practices in student work. It took a couple of examples and continued questioning. They tended to think about the questions they would ask students to steer them to the right answer or to see their own errors instead of using the opportunity as a teachable moment to improve students’ proficiency in the mathematical practices. However, once they understood their task, teachers did an outstanding job.

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| **On PowerPoint:** | **Facilitator notes:** |
| Goals and Outline:Part 1:* + Solve and discuss the task in a way that helps us become more aware of the meanings of the SMP.
* Part 2:

Examine student work on the task to consider how we could support increased understanding and use of the SMP. | (5 minutes)Introduce yourselves to each other and discuss Math Norms.This task will give us an opportunity to become familiar with the SMP in such a way that we are more able to spot when our students are using them and help them use them in more powerful ways. The goal of the SMP are to become proficient in using them in ways that support deeper learning of math.  |
| Two kids are playing a game: in this game, they each choose a number, then subtract the square of their number from nine times their number. They compare their results and whoever has the largest result wins. Describe a winning strategy and why it works.Use Handout 1 to describe the thought processes you use while solving the problem. | (15 minutes) Handout 1. Solve alone to start; make sure others at your table are ready to talk, and discuss it. |
| Examine Your Thought ProcessesIndividually compare your work and thought processes to the SMP * Which ones did you use?
* How did you use them?
 | (5 minutes)This is to help them realize that they use the SMP and to become familiar with the language and meanings of the SMP within their own contexts. |
| Questions for Whole Group Discussion* How did your use of the SMP help you solve the problem?
* In what ways did you interpret a particular SMP different from someone else in your group?
 | Share solutions of the task while discussing how the SMP were used. |
| Part 2: Advancing Students’ Use of SMP Analyze student work as it relates to the Standards for Mathematical Practices (SMP)* Choose 3 or 4 students’ work and identify two SMP that you think students could have used in each work.
* Describe the student’s current level of using the particular SMP.
* Write questions you could ask students to help them use the particular SMP at a more advanced level as you envision the use of SMP at that level.
 | (20 minutes)Our goal is to help students become more proficient at using the SMP to gain power as a student and doer of mathematics. For example, talk for a minute in your groups about Student Work 1. What SMP could the student use (that is, what potential use of SMP is there in the students’ thinking?)In this case, the student is doing three calculations; can he reflect on his calculations and imagine the values of the chosen number that result in a negative number? This shifts thinking from one calculation at a time to seeing an expression as a single value (a very important step in math!!) |
| Discussion* What SMP potential did you see in each students’ work?
* How did noticing potential in each student’s work help you devise questions for that student?
* How might supporting more advanced levels of SMP use help students better understand the content?
 | (10 minutes)Each group should share out the SMP ideas they saw in one students’ work. Bring up the idea of comparing/using two students’ work to advance SMP.  |
| Reflection* In what ways could focusing on students’ potential use of SMP support their learning of content standards?
 | (5 minutes) |