



SMP 8 - Look for and Express Regularity and Repeated Reasoning

Dr. Cindy Aossey, Kentucky Center for Mathematics

1 SMP 8—Look for and Express Regularity in Repeated Reasoning— is an avenue of thinking that helps
2 students make sense of mathematical problems. Students engage in this practice when they identify
3 calculations that are repeated and find ways to generalize procedures.

4 For example, when second-grade students mentally add and subtract 10 or 100 to a given number
5 between 100 and 900, they should be looking for a way to generalize these calculations and identify an
6 efficient procedure. If they explore this concept using different representations such as base 10 blocks
7 and thousands charts, they will have opportunities to discover the repetition and regularity in our
8 base-ten number system, recognizing how numbers change when adding or subtracting 10 or 100.
9 And, in the end, students will be able to generalize that when adding ten to any number, it will increase
10 the value of the tens place by one.

11 Teachers can support students' work with SMP8 by asking questions like:

- 12 • Is there something here that repeats?
- 13 • Are you counting, drawing, building, or calculating the same way each time?
- 14 • Is there a formula or a rule that could represent this process?

15 SMP 8 is a mindset for problem-solving. When students look for repetition and regularity, they begin to
16 recognize mathematical structures and form generalizations that enable them to make use of those
17 structures and solve problems.

