



The Standards for Mathematical Practice

Dr. Cindy Aossey, Kentucky Center for Mathematics

Dr. Kanita DuCloux, Western Kentucky University

- 1 The Kentucky Academic Standards for Mathematics include both the content standards and the
2 standards for mathematical practice. The Standards for Mathematical Practice, often referred to as the
3 SMPs, outline what it means to *do mathematics*. They are focused on building habits of mind in order to
4 deepen understanding, which help students become confident and capable mathematicians who can
5 think deeply about mathematical concepts in order to solve problems. The SMPs are intended to be a
6 part of mathematics instruction at every grade level.
- 7 You'll find the complete list of the 8 Standards for Mathematical Practice listed above each set of grade
8 level content standards, from kindergarten through high school, in the Kentucky Academic Standards
9 for Mathematics. You will also find a green box below each set of content standards, which highlights
10 the ways in which teachers and students can attend to the SMPs during their exploration of the content.
- 11 Let's look at an example from kindergarten. In this standard, students are expected to "identify whether
12 the number of objects in one group is greater than, less than, or equal to the number of objects in
13 another group" and a connection is made to SMPs 1, 3 and 6. In the green box at the bottom of the
14 page, the connections between the content standard and the targeted SMPs are described and
15 illustrated with practical examples that teachers and students can do in their classrooms.
- 16 The Standards for Mathematical Practice are a critical piece of the Kentucky Academic Standards for
17 Mathematics and an integral component of high quality mathematics instruction. To truly understand
18 and apply the mathematical concepts in the content standards, students must engage in the SMPs and
19 have experiences that allow opportunities for reasoning, sense-making, and justification.

