

ATTEND TO
PRECISION

I'M USING THIS SMP WHEN...

- ✓ I use appropriate math vocabulary correctly in order to clearly explain my math thinking to others.
- ✓ I understand the meaning of and correctly use math symbols, including the equal sign.
- ✓ I use appropriate units and labels to organize and communicate my thinking.
- ✓ I decide when to use an estimate, when to round, and when to find an exact answer, based on the situation.

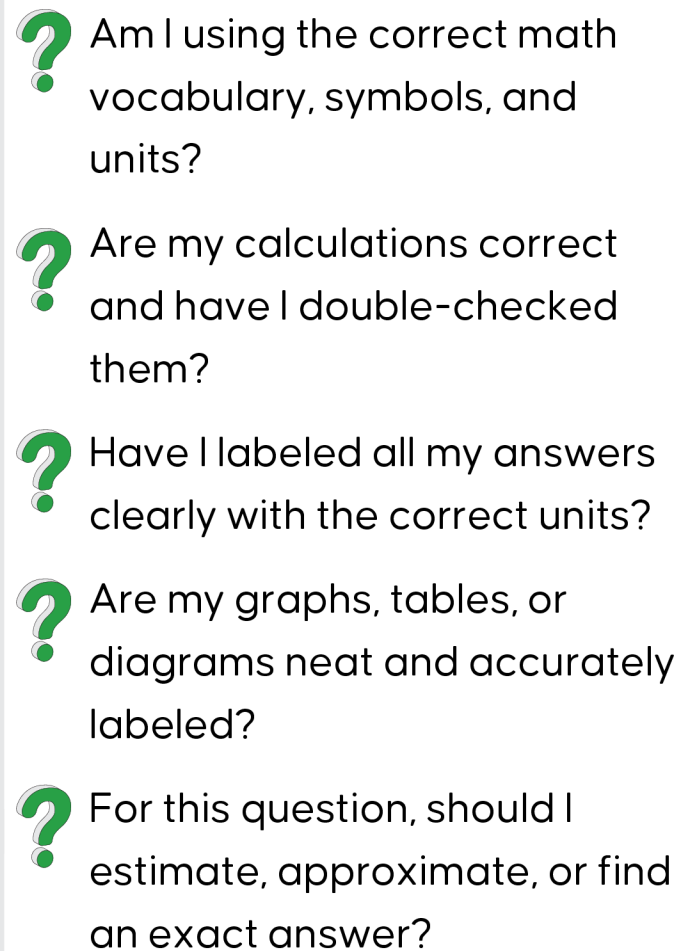
TEACHING ACTIONS TO ENGAGE
STUDENTS IN THIS PRACTICE

- Demonstrate how and encourage students to use precise vocabulary (in written and verbal responses) when communicating mathematical ideas.
- Expect students to use symbols appropriately.
- Require students to include appropriate units and labels in their work.
- Emphasize the importance of performing calculations carefully and checking for errors.
- Include opportunities for students to identify, analyze, and correct errors in their work or the work of others.
- Ask students to reflect on whether their solutions are reasonable and their level of precision is appropriate to the task, understanding that in some situations, an approximate answer is appropriate.

SMP 6: Attend to precision.

Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussions with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They are careful about specifying units of measure and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently and express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students provide carefully formulated explanations to each other. By the time they reach high school, they can examine claims and make explicit use of definitions.

Kentucky Department of Education (2019, p. 14)

- 
- ? Am I using the correct math vocabulary, symbols, and units?
 - ? Are my calculations correct and have I double-checked them?
 - ? Have I labeled all my answers clearly with the correct units?
 - ? Are my graphs, tables, or diagrams neat and accurately labeled?
 - ? For this question, should I estimate, approximate, or find an exact answer?

STUDENT ASK-YOURSELF QUESTIONS



SMP#6