

Mathematics | Standards for Mathematical Practice

The Standards for Mathematical Practice describe behaviors that all students will develop in the Common Core Standards. These practices rest on important “processes and proficiencies” including problem solving, reasoning and proof, communication, representation, and making connections. These practices will allow students to understand and apply mathematics with confidence.

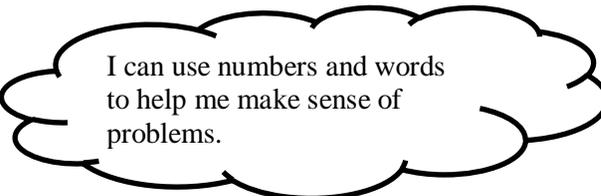


When given a problem, I can make a plan to solve it and check my answer.

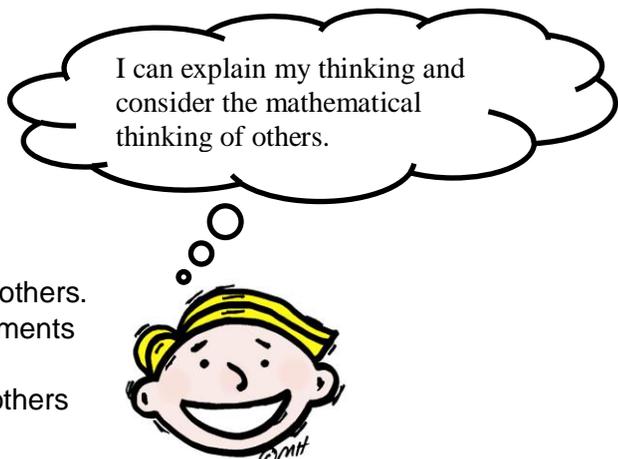
1. Make sense of problems and persevere in solving them.
 - Find meaning in problems
 - Analyze, predict and plan solution pathways
 - Verify answers
 - Ask themselves the question: “Does this make sense?”

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2. Reason abstractly and quantitatively.

- Make sense of quantities and their relationships in problems
- Create coherent representations of problems



I can use numbers and words to help me make sense of problems.



I can explain my thinking and consider the mathematical thinking of others.

3. Construct viable arguments and critique the reasoning of others.

- Understand and use information to construct arguments
- Make and explore the truth of conjectures
- Justify conclusions and respond to arguments of others

4. Model with mathematics.

- Apply mathematics to problems in everyday life
- Identify quantities in a practical situation
- Interpret results in the context of the situation and reflect on whether the results make sense



I can recognize math in everyday life and use math I know to solve problems.

I can use math tools to help me explore and understand math in my world



5. Use appropriate tools strategically.

- Consider the available tools when solving problems
- Are familiar with tools appropriate for their grade or course (pencil and paper, concrete models, ruler, protractor, calculator, spreadsheet, computer programs, digital content located on a website, and other technological tools)

I can be careful when I use math and clear when I share my ideas.



6. Be precise.

- Communicate precisely to others
- Use clear definitions, state the meaning of symbols and are careful about specifying units of measure and labeling axes
- Calculate accurately and efficiently

I can see and understand how numbers and shapes are put together as parts and wholes.

7. Look for and make use of structure.

- Recognize patterns and structures
- Can step back for an overview and shift perspective
- See complicated things as single objects or as being composed of several objects



8. Look for and identify ways to create shortcuts when doing problems.

- When calculations are repeated, look for general methods, patterns and shortcuts
- Be able to evaluate whether an answer makes sense

I can notice when calculations are repeated.

