

# Standards for Mathematical Practice

## 1. Make sense of problems and persevere in solving them.

- Interpret and make meaning of the problem to find a starting point
- Plan a solution pathway instead of jumping to a solution
- Monitor progress and change approach if necessary

## 2. Reason abstractly and quantitatively.

- Make sense of quantities and their relationship
- Understand the meaning of quantities
- Create a logical representation of the problem

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

- Justify conclusions with mathematical ideas
- Ask clarifying questions
- Listen to the arguments of others

## 4. Model with mathematics.

- Apply mathematics to solve everyday problems.
- Represent mathematics to describe a situation using equations or diagrams
- Reflect on whether results make sense to possibly improve a model

## 5. Use appropriate tools strategically.

- Use technological tools to deepen understanding
- Use tools and recognize the strengths and limitations of each
- Identify relevant math resources to pose and solve problems

## 6. Attend to precision.

- Understand the meaning of symbols and label quantities appropriately
- Calculate effectively and accurately
- Express numerical answers with a degree of precision

## 7. Look for and make use of structure.

- Apply general mathematical rules to specific situations
- Look for the overall structure and patterns in mathematics
- See complicate things as single objects or composed as several objects

## 8. Look for and express regularity in repeated reasoning.

- See repeated calculations and look for generalizations
- See overall process of problem and attend to details
- Understand broader application of patterns and see structure in similar situations