**1. Make sense of problems and persevere in solving them**
Students should be able to explain the meaning of a problem and actively look for ways that it can be solved. Instead of jumping right into an attempt at a solution, students need to critically analyze the math problem, speculate about the form and meaning of the solution, and plan a pathway to get there.

**2. Construct viable arguments and critique the reasoning of others**
When constructing arguments, students should consult definitions, theorems and previously established results. They will need to justify their conclusions by building a logical progression of claims and using examples. It’s also important that they be able to distinguish correct reasoning from that which is flawed.

**3. Reason abstractly and quantitatively**
Making sense of quantities and their relationships when problem solving is an important math skill for students to possess. This involves creating coherent arguments and using symbols to represent mathematical situations. Students should be able to use the different properties of operations and objects flexibly.

**4. Model with mathematics**
This brings math outside of the classroom. Students must have the skills take what they’ve learned in math class and apply it to situations they encounter in everyday life. What this means will evolve as students mature and work their way toward high school graduation.

**5. Attend to precision**
Good mathematical practice also involves the ability to communicate what one has learned. Students must be able to use mathematical definitions to clearly and accurately explain their reasoning. In addition, they should be precise about units of measure and labeling axes.

**6. Use appropriate tools strategically**
When solving math problems, students will need to consider the tools they have available to them. This can range from pencil and paper, to a calculator, to math software or a protractor. They should be able to identify which tool will be most helpful and use it appropriately.

**7. Look for and make use of structure**
Students should be able to discern patterns and structures in math. What this means varies depending upon grade level. Elementary math students, for example, should know that 4+5 and 5+4 mean the same thing. High school students will need to note regularity in the way things cancel out when expanding an equation.

**8. Look for and express regularity in repeated reasoning**
More advanced math students should be able to recognize when calculations are repeated and be constantly looking for shortcuts. As they work through math problems, students should continually reevaluate if they are on the right track.