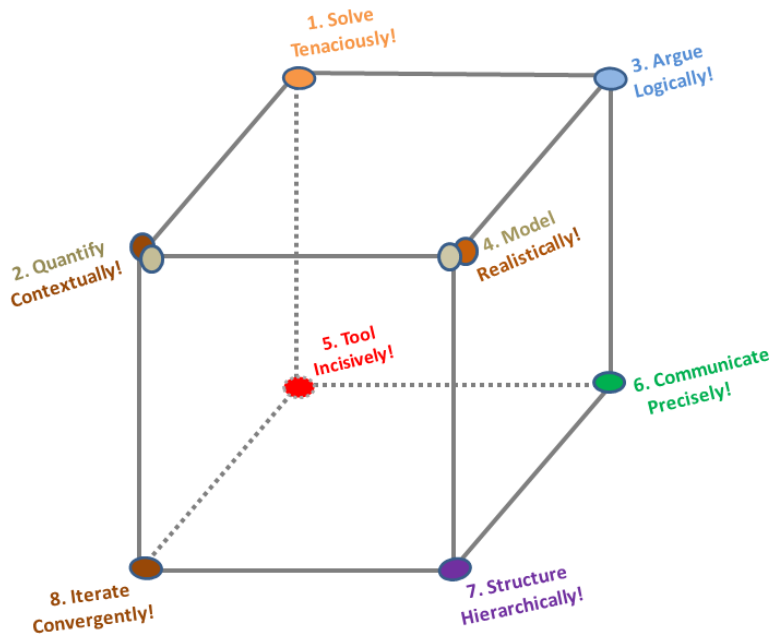


Eight Mathematical Practices—Cubed!



1 Solve Tenaciously! Analyze your problem's givens, constraints, relationships, goals, special cases and simpler versions. Monitor your progress and check your answers by another method.

2 Quantify Contextually! Manipulate symbols as if they have a life of their own, but pause to probe referents for the symbols. Consider the units involved.

3 Argue Logically! Use established results and logical statements to explore conjectures. Communicate your conclusions and justify them to others.

4 Model Realistically! Apply mathematics to everyday life and society. Use functions, diagrams and formulas to model real quantities and draw practical conclusions.

5 Tool Incisively! Consider pencil and paper, concrete models, computers, spreadsheets and calculators. Use external websites to pose and explore problems.

6 Communicate Precisely! Formulate explanations and examine claims using stated symbols and explicit definitions. Specify units of measure and use appropriate numerical precision.

7 Structure Hierarchically! Discern significant lines in a geometric figure and draw important auxiliary lines. Shift perspective to view an algebraic expression as one object or a composition of significant objects.

8 Iterate Convergently! When your calculations repeat, seek general methods and cumulative shortcuts. Investigate reasonableness of your problem-solving process while attending to its details.

