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.
Probability and Statistics

Engineering and Science

Computer Programming

Algebra and Geometry

Pedagogy and Communication

Arithmetic and Calculus

1. Solve Tenaciously!
2. Quantify Contextually!
3. Argue Logically!
4. Model Realistically!
5. Tool Incursively!
6. Communicate Precisely!
7. Structure Hierarchically!
8. Iterate Convergently!

Separate two strips, then fold strips together like covers on a baseball, over an Origami cube.

© 2017 praxis machine coding lessons.com

Peter-lang-01@hotmail.com