Ohio Mathematical Processes Benchmarks

Grade 5-7

A. Clarify problem-solving situation and identify potential solution processes; e.g., consider different strategies and approaches to a problem, restate problem from various perspectives.

B. Apply and adapt problem-solving strategies to solve a variety of problems, including unfamiliar and non-routine problem situations.

C. Use more than one strategy to solve a problem, and recognize there are advantages associated with various methods.

D. Recognize whether an estimate or an exact solution is appropriate for a given problem situation.

E. Use deductive thinking to construct informal arguments to support reasoning and to justify solutions to problems.

F. Use inductive thinking to generalize a pattern of observations for particular cases, make conjectures, and provide supporting arguments for conjectures.

G. Relate mathematical ideas to one another and to other content areas; e.g., use area models for adding fractions, interpret graphs in reading, science and social studies.

H. Use representations to organize and communicate mathematical thinking and problem solutions.

I. Select, apply, and translate among mathematical representations to solve problems; e.g., representing a number as a fraction, decimal or percent as appropriate for a problem.

J. Communicate mathematical thinking to others and analyze the mathematical thinking and strategies of others.

K. Recognize and use mathematical language and symbols when reading, writing and conversing with others.