

Chapter 5: Solution Methods and Problem-Solving Strategies

In solving a problem, the solver must make a plan for reaching the solution and then carries out the plan. The procedure(s) the solver uses to problem solve is/are called solution methods.

The 4-Step Problem Solving Method (Ploya-1949)

- 1.
- 2.
- 3.
- 4.

Common Strategies For Problem Solving May Include:

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Talking through the “givens” of a mathematical problem:

Good problem solvers ask themselves _____
_____ about the given and unknown
_____ in the problem.

Good Problem Solvers:

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Talking through a method for solution:

Identify the benefits to having students talk about methods of solution/problem solving strategies.

Increasing student’s self monitoring of thinking:

What questions might you ask students to have them reflect on their own thinking and problem solving?

Chapter 6: Mathematical Reasoning

Why talk about reasoning?

What is spatial reasoning?

What is algebraic reasoning?

What other types of reasoning might students have a need for?

Why is it important to talk about reasoning?

Reasoning about Algebra:

What information from this section do you believe is MOST important to remember?